RETURN BIDS TO: RETOURNER LES SOUMISSIONS À :

Transport Canada TC MAIL ROOM, (Food Court Level) Tower "C", Place de Ville 330 Sparks Street

Ottawa, Ontario K1A 0N5 Attention: Bruce Weir

Bid receiving Unit: 613-998-5105

Transports Canada TC MAIL ROOM, (Niveau Food Court) Tour C", Place de Ville 330 Sparks Street Ottawa, Ontario K1A 0N5 Attention: Bruce Weir

Service de réception des soumissions : 613-998-5105

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

Comments - Commentaires

Proposal To: Transport 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 thereof.

On behalf of the bidder, by signing below, I confirm that I have read the entire bid solicitation including the documents incorporated by reference into the bid solicitation and I certify that:

- 1. The bidder considers itself and its products able to meet all the mandatory requirements described in the bid solicitation;
- 2. This bid is valid for the period requested in the bid solicitation;
- 3. All the information provided in the bid is complete, true and accurate: and
- 4. If the bidder is awarded a contract, it will accept all the terms and conditions set out in the resulting contract clauses included in the bid solicitation.

Proposition à : Transports Canada

Nous offrons par la présente de vendre à Sa Maiesté 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-annexées, au(x) prix indiqué(s).

En apposant ma signature ci-après, j'atteste, au nom du soumissionnaire, que j'ai lu la demande de propositions (DP) en entier, y compris les documents incorporés par renvoi dans la DP et que:

- 1. le soumissionnaire considère qu'il a les compétences et que ses produits sont en mesure de satisfaire les exigences obligatoires décrites dans la demande de soumissions;
- 2. cette soumission est valide pour la période exigée dans la demande de soumissions ;
- 3. tous les renseignements figurant dans la soumission sont complèts, véridiques et exacts; et
- 4. si un contrat est attribué au soumissionnaire, ce dernier se conformera à toutes les modalités énoncées dans les clauses concerrnant le contrat subséquent et comprises dans la demande de soumissions.

Title - C	Sujet	
Comp	osite Cylinder Projec	ct
Solicita	tion No. – N° de l'invitatio	n Date
T8080-190125/A		August 23, 2019
Client R	eference No. – N° référen	ce du client
T8080-	190125/A	
GETS R	eference No. – N° de réfé	rence de SEAG
Solicitation Closes		Time Zone
	tion prend fin	Fuseau horaire
at – à	02 :00 PM - 14h00	Eastern Daylight Time (EDT)
on – le	October 4, 2019	Heure Avancé de l'Est (HAE)
	F.A.B. sine: Destination:	☑ Other-Autre: □
Plant-Us	sine: Destination:	☑ Other-Autre: ☐ toute demande de renseignements à :
Plant-U	sine: Destination:	
Plant-Us Address Bruce	sine: Destination:	
Plant-U: Address Bruce \ Area coo	sine: Destination: s inquiries to – Adresser to	toute demande de renseignements à :
Plant-Us Address Bruce Area coo Code re	sine: Destination: s inquiries to - Adresser to the serior of the serio	toute demande de renseignements à : Facsimile No. / e-mail
Address Bruce \ Area coo Code reg 613-990 Destina	Bine: Destination: Binquiries to - Adresser for the Adre	Facsimile No. / e-mail Nº de télécopieur / courriel bruce.weir@tc.gc.ca , and Construction:
Plant-U: Address Bruce \(\) Area coo Code rei 613-990 Destina	sine: Destination: s inquiries to – Adresser to Weir de and Telephone No. gional et N° de téléphone -7632 tion – of Goods, Services tion – des biens, services	Facsimile No. / e-mail Nº de télécopieur / courriel bruce.weir@tc.gc.ca , and Construction:
Plant-U: Address Bruce \(\) Area coo Code rei 613-990 Destina	Bine: Destination: Binquiries to - Adresser for the Adre	Facsimile No. / e-mail Nº de télécopieur / courriel bruce.weir@tc.gc.ca , and Construction:
Plant-U: Address Bruce \(\) Area coo Code rei 613-990 Destina	sine: Destination: s inquiries to – Adresser to Weir de and Telephone No. gional et N° de téléphone -7632 tion – of Goods, Services tion – des biens, services I Capital Region	Facsimile No. / e-mail Nº de télécopieur / courriel bruce.weir@tc.gc.ca , and Construction:

See Herein - Voir aux présentes

Jurisdiction of Contract: Province in Canada the bidder wishes to be the legal jurisdiction applicable to any resulting contract (if other than as specified in solicitation) Compétence du contrat : Province du Canada choisie par le soumissionnaire et qui aura les compétences sur tout contrat subséquent (si différente de celle précisée dans la demande)

Vendor/firm Name and Address Raison sociale et addresse du fournisseur/de l'entrepreneur

Telephone No. - Nº de téléphone

e-mail - courriel

Name and title of person authorized to sign on behalf of Vendor/firm (type or

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

PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There are no Security Requirements for this RFP

1.2 Statement of Work

Transport Canada has a requirement for a study into and report on the feasibility of extending the lifetime of Composite Cylinders as detailed in Article 6.2 of the Resulting Contract Clauses.

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

1.4 Enquiries and Communications

When contacting Transport Canada concerning this requirement, Bidders must follow the procedures detailed in

- a) Enquiries or Questions in accordance with Article 2.4 below, and
- b) Communications with Transport Canada in accordance with Article 2.5 below Failure to follow these provisions alone may result in a Bidder's proposal being rejected.

1.5 Office of the Procurement Ombudsman

The Office of the Procurement Ombudsman (OPO) was established by the Government of Canada to provide an independent venue for Canadian bidders to raise complaints regarding the award of federal contracts under \$25,300 for goods and under \$101,100 for services. Should you have any issues or concerns regarding the award of a federal contract below these dollar amounts, contact OPO by e-mail at boa.opo@boa-opo.gc.ca, by telephone at 1-866-734-5169, or by web at www.opo-boa.gc.ca. For more information about OPO, including the available services, please visit the OPO website.

1.6 Trade Agreements

The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA)."

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 <u>Standard Acquisition Clauses and Conditions Manual</u> 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 (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/active).

2.2 Submission of Bids

Bids must be submitted by the date, time and place indicated on page 1 of the bid solicitation to

Mail Room Transport Canada - AFMC 330 Sparks Street, Place de Ville -Tower C Routing - AFTC Ottawa ON K1A 0N5

2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the Financial Administration Act, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

an individual;

an individual who has incorporated;

- a partnership made of former public servants; or
- a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the Public Service Superannuation Act (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the Supplementary Retirement Benefits Act, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the Canadian Forces Superannuation Act, R.S., 1985, c. C-17, the Defence Services Pension Continuation Act, 1970, c. D-3, the Royal Canadian Mounted Police Pension Continuation Act, 1970, c. R-10, and the Royal Canadian Mounted Police Superannuation Act, R.S., 1985, c. R-11, the Members of

Parliament Retiring Allowances Act, R.S. 1985, c. M-5, and that portion of pension payable to the Canada Pension Plan Act, R.S., 1985, c. C-8..

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? Yes () No ()

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? Yes () No ()

If so, the Bidder must provide the following information:

name of former public servant;
conditions of the lump sum payment incentive;
date of termination of employment;
amount of lump sum payment;
rate of pay on which lump sum payment is based;
period of lump sum payment including start date, end date and number of weeks;
number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 5 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.

All enquiries must be submitted in accordance with the instructions detailed in Article 2.5

2.5 Communications - Solicitation Period

To ensure the integrity of the competitive bid process, enquiries and other communications regarding the bid solicitation must be directed only to the Contracting Authority identified in the bid solicitation. Failure to comply with this requirement may result in the bid being declared non-responsive.

2.6 Applicable Laws

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

3.1 Bid Preparation Instructions

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

Section I:

Technical Bid (four hard copies)

Section II:

Financial Bid (one hard copy)

Section III:

Certifications (one 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 <u>Policy on Green Procurement</u>. 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 Section I Technical Bid, Bidders must explain and demonstrate how they propose to meet the requirements and how they will carry out the Work. This section must include

- a) Draft Work Plan which includes
 - i) A description of the approach/methodology proposed for completing the work
 - ii) The methodology and capacity for collecting used composite cylinders within 2 years of their 15 year service life:
 - iii) A proposed testing procedure in accordance with the applicable sections of the CSA B339-18 and ISO 11119-2: 2012 Standards, as outlined in Annex B:
 - Composite cylinder requalification testing in accordance with Clause 24 of CSA B339-18 (including visual inspection and hydrostatic testing as per Compressed Gas Association (CGA) publications referenced within CSA B339-18, including CGA C-1-2016 and CGA C-6.2-2013);
 - Composite cylinder burst testing as per CSA B339-18: Clause 4.14.5;
 - Composite cylinder ambient temperature cycle test for 15 year design life at maximum developed pressure as per ISO 11119-2: 2012: Clause 8.5.5;
 - Composite cylinder flaw test as per ISO 11119-2: 2012: Clause 8.5.7;
 - Composite cylinder drop test as per CSA B339-18: Clause 9.13.8.; and
 - Modal Acoustic Emission testing as per industry best practice methodology.
 - iv) A full description of the approach/methodology proposed for completing the work. The proposed testing procedure must be in accordance with the applicable sections of the CAN/CGSB-43.146 Standard, as outlined in Annex B; and
 - v) A time table (GANTT chart or similar) showing activities and milestones.
- b) A proposed core team comprised of a Project Lead and key project resources (researchers/staff) sufficient to complete the work
- c) An outline of the final technical report

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.

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, supported by one consultant from Altis Human Resources Inc. will evaluate the bids.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

Criterion	Mandatory Criteria	Met / Not Met	Cross Reference in Proposal
MT-1	The Bidder must submit a Work Plan in accordance with the Bid Preparation Instructions, Section I, subparagraph a).		
MT-2	The Bidder must propose a Project Lead who has - a minimum of 5 years of experience in conducting and managing complex analytical projects in support of research and development work for academia, commercial, and/or government clients, and - at least an undergraduate degree or college diploma in a relevant field from a recognized institution. The following information must be provided to demonstrate compliance:		
	The Bidder must provide a CV for the Project Lead	<u> </u>	
MT-3	The Bidder must demonstrate it has a qualified and experienced team of researchers/staff for carrying out the research. Key proposed project resources are responsible for training of personnel, as well as for supervision and/or operation of testing. All key proposed project resources assigned to carry out the work must have at least an undergraduate degree or college diploma in a relevant field from a recognized institution. The Bidder must provide a CV for the Key Project Resources		
MT-4	The Bidder must have, or provide details on how and where it will assemble all the necessary equipment/analytical tools to carry out the following, as detailed in Annex B: - Composite cylinder requalification; - Composite cylinder ambient temperature cyclic testing; - Composite cylinder burst testing; - Composite cylinder drop testing; - Composite cylinder flaw testing; and - Modal Acoustic Emission Testing.		
MT-5	The Bidder must submit as part of its bid an outline of the final technical report		

4.1.1.2 Point Rated Technical Criteria

Bids which meet all the mandatory technical criteria will be evaluated and scored as specified below.

Item	Description	Scoring Methodology	Maximum Available Points	Technical Score
R-1	The Bidder should include, as part of its proposal, a full and complete draft work plan which demonstrates that it has: - A complete and detailed understanding of the Requirement and how to achieve it; and - A high probability of successfully completing the contract.	Criterion is worth up to 20 points based on the rating scale below. 20 = Excellent plan, clear, thorough, sufficient detail to provide understanding of work, i.e. no gaps in information; very high probability of success 15 = Good plan, sufficient detail to provide understanding of work, but with minor weaknesses/gaps in information; high probability of success 10 = Adequate plan, sufficient detail to provide understanding of work, but with weaknesses/gaps in information; good probability of success 5 = Poor plan, insufficient detail to provide understanding of work with major weaknesses/gaps in information; low probability of success 1 = Inadequate plan; lacks detail/information; not likely to succeed	20	
R-2	The Bidder should identify key project resources with experience in projects performing quantitative testing and analysis of cylinder burst strength.	2 points for each resource with cylinder testing and analysis project experience to a maximum of 10 points.	10	
R-3	The Bidder should identify key project resources with experience in the study or evaluation of composite cylinder construction, materials, and/or stresses.	2 points for each year of experience in composite cylinders to a maximum of 10 points.	10	
R-4	The Bidder should identify key project resources who have training in: - Pressure testing in accordance with publication	If any Key Project Resource has had training in Pressure Testing – 5 points If any Key Project Resource has had training in Visual Examination – 5 points	10	

Item	Description	Scoring Methodology	Maximum Available Points	Technical Score
	CGA C-1- 2016; and/or - Visual examination in			
	accordance with publication CGA C-6.2- 2013.			
R-5	The Bidder should demonstrate experience performing Modal Acoustic Emission Testing on composite cylinders.	2 points for each project to a maximum of 10 points.	10	
R-6	The Bidder should include, as part of its proposal, Acoustic Emission Testing as detailed in Annex B.	5 points for including Acoustic Emission Testing, 0 points for not including Acoustic Emission Testing.	5	
R-7	The Bidder should have, or should provide details on how it will assemble, all the necessary equipment to carry out the optional environmental (below -50°C and above 60°C) cyclic testing as detailed in Annex B.	5 points for including environmental cyclic testing, 0 points for not including environmental cyclic testing.	5	
		Maximum Technical Po	oint Score = 70	
		Point Rated T	echnical Score	

4.1.2 Financial Evaluation

A financial point score will be calculated for each bid using the following formula:

(Price L/Price Bid) x 30

Where

Price L = the Total Bid Price of the lowest price responsive bid, and Price Bid = the Total Bid Price of the bid being evaluated

The price of the bid will be evaluated as follows:

- a. Canadian-based bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
- b. foreign-based bidders must submit firm prices, Canadian customs duties, excise taxes and Applicable Taxes excluded. Canadian customs duties and excise taxes payable by Canada will be added, for evaluation purposes only, to the prices submitted by foreign-based bidders.

Bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date will be applied as a conversion factor to the bids submitted in foreign currency.

Although Canada reserves the right to award the Contract either on an FOB plant or FOB destination, Canada requests that bidders provide prices FOB their plant or shipping point and FOB destination. Bids will be assessed on an FOB destination basis.

For the purpose of the bid solicitation, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.

4.1.3 Bid Score

The maximum possible Bid Score is 100. The Bid Score for a proposal shall be the sum of the Point Rated Technical Score of para 4.1.1.2 above and the Financial Point Score of para 4.1.2 above.

4.2 Basis of Selection

To be declared responsive, a bid must:

- a) comply with all the requirements of the bid solicitation; and
- b) meet all mandatory technical evaluation criteria.

Bids not meeting (a) or (b) will be declared non-responsive. Neither the responsive bid that receives the highest number of technical points nor the one that proposes the lowest price will necessarily be accepted.

The responsive bid with the highest Bid Score calculated in accordance with para 4.1.3 above will be recommended for award of a contract.

In the event that two or more responsive bids have the same highest Bid Score, the responsive bid that obtained the highest overall score for all the point-rated technical criteria will be recommended for award of a contract.

Only one contract will be awarded further to this solicitation.

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 certification as part of their bid.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the <u>Ineligibility and Suspension Policy</u>, the Bidder must provide with its bid the required documentation, as applicable, 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 provided 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 property agreement of the <u>Ineligibility and Suspension Policy</u> (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 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.

5.2.3 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

5.2.4 Education and Experience

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

PART 6 - RESULTANT CONTRACT CLAUSES

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

6.1 Security Requirements

There are no security requirements associated with the Work

6.2 Statement of Work

The Contractor shall carry out a study into and report on the potential for extending the prescribed period of use of certain carbon fibre composite cylinders beyond the current fifteen year limit as detailed in the Statement of Work attached as Annex B.

6.3 Standard Clauses and Conditions

6.3.1 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) issued by Public Works and Government Services Canada

6.3.2 Transport Canada General Conditions - Services apply to and form part of the Contract.

6.4 Period of Performance

The period of performance is from date of contract award to February 28, 2020, inclusive.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Bruce Weir Procurement Advisor Transport Canada - AFMC 275 Sparks Street, Routing - AFTC Ottawa Ontario K1A 0N5 Phone: 613-990-7632

E-Mail: bruce.weir@tc.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.

6.5.2 Project Authority

The Project Authority for the Contract is TBD

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.

6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

6.7 Payment

6.7.1 Basis of Payment

The Contractor shall be paid in accordance with the following

In consideration for the Contractor satisfactorily completing all of its obligations, the Contractor will be paid a firm lot price of \$XXX plus taxes estimated at \$ XXX.

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.

6.7.2 Method of Payment

For the work detailed under this contract, Canada will make milestone payments in accordance with the Milestone Payment Schedule detailed in sub paragraph 6.7.2.4 below and the payment provisions of the Contract:

- 6.7.2.1 following completion of all work associated with the milestone and, as applicable, any deliverable required has been completed and accepted by Canada, and
- 6.7.2.2 following receipt of an accurate and complete claim for payment using Contractor's invoice and any other document required by the Contract, submitted in accordance with the payment provisions of the Contract, and containing the description and value of the milestone claimed.
- 6.7.2.3 Milestone payments shall be made in accordance with the following Milestone Payment Schedule following completion and acceptance of the corresponding deliverable, to the satisfaction of the TC Project Technical Authority.

Task	Deliverable	Target Date	Payment
1	Acceptance of final test plan	15 days after receipt of TC comments	15% of contract value
2	Collection of all cylinders, as detailed in the approved list of cylinders part of Task 2	TBD	15% of contract value
3	Submission of raw data to Project Authority	TBD	40% of contract value
4	Completion and acceptance of the work, including final report	TBD	Balance Owing

6.7.3 Invoicing Instructions

- 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. Each invoice must be supported by a copy of the monthly progress report.
- 3. Invoices, original and one (1) copy, must be forwarded to the address shown on page 1 of the Contract for certification and payment.

6.8 Certifications and Additional Information

6.8.1 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.

6.8.2 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the Province of Ontario.

6.8.3 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) This Resultant Contract Clauses:
- (b) The General Conditions attached as Annex A:
- (c) Statement of Work, attached as Annex B,
- (d) The Contractor's bid dated _____ (insert date of bid)

6.9 Qualifications

Contractor shall meet, as a minimum, the mandatory requirements detailed in Article 4.1.1.1 of the RFP.

6.10 Continuity and Replacement of Resources

The Selected Contractor shall be responsible to ensure that all proposed personnel and other professional resources are assigned for the duration of the contract and are not replaced without due cause. In the event that a resource is to be replaced, it will be the Selected Contractor's responsibility to ensure that there is no negative impact on any work in progress.

Should for any reason, the designated resources for a deliverable are not available, then the Selected Contractor shall immediately make available a fully qualified replacement resource to be approved by the Project Authority. Such approval is not intended to limit the Selected Contractor's flexibility but to ensure the use of agreed-to resources levels and experience for stated deliverables. The Project Authority retains the right to refuse the proposed backup resources in which case, and within a reasonable period of time, the Selected Contractor shall propose alternate resources. If no suitable replacement resource can be provided within a suitable timeframe (maximum of one (1) week), then the project Authority may elect to terminate the Contract, or may elect to use an alternate method. Note that replacement resources are to be evaluated in accordance with the original evaluation.

6.11 Insurance - No specific requirement

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

6.12 Dispute Resolution

The Parties agree to make every reasonable effort, in good faith, to settle amicably all disputes or claims relating to or arising from the Contract, through negotiations between the Parties' representatives authorized to settle. If the Parties do not reach a settlement within 10 working days, each party hereby consents to fully participate in and bear the cost of mediation led by the Procurement Ombudsman pursuant to Subsection 22.1(3)(d) of the *Department of Public Work and Government Services Act* and Section 23 of the *Procurement Ombudsman Regulations*.

The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169, by e-mail at boa.opo@boa-opo.gc.ca, or by web at www.opo-boa.gc.ca.

6.13 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by the complainant respecting the administration of the Contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met.

To file a complaint, the Office of the Procurement Ombudsman may be contacted by e-mail at boa.opo@boa-opo.gc.ca, by telephone at 1-866-734-5169, or by web at www.opo-boa.gc.ca.

RESULTANT CONTRACT CLAUSES ANNEX A GENERAL CONDITIONS

COMPOSITE CYLINDER PROJECT CONTRACT

1. Interpretation

In the Purchase Order,

- 1.1. "Amendment" means "Revision";
- 1.2. "Contract" means "Purchase Order" and all the documents referred to and identified in the Contract, including these General Conditions;
- 1.3. "Departmental Contracting Authority" means the officer or employee of Her Majesty who is identified in the Contract and who executes the Contract;
- 1.4. "Departmental Representative" means the officer or employee of Her Majesty who is identified in the Contract and includes a person authorized by the Departmental Representative to perform any of the Departmental Representative's functions under the Contract;
- 1.5. "Her Majesty" includes Her Majesty the Queen in right of Canada or any agent of Her Majesty the Queen in right of Canada, and includes a Crown corporation and a departmental corporation.
- 1.6. "Invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement thereof;
- 1.7. "Minister" includes a person acting for, or if the office is vacant, in place of the Minister of Transport and the Minister's successors in the office, and the Minister's or their lawful deputy and any of the Minister's or their representatives appointed for the purpose of the Contract;
- 1.8. "Per diem" means a period of 7.5 hours of actual work per day. Where actual hours worked are less than 7.5 hours per day, the amount to be paid will be prorated accordingly;
- 1.9. "Prototypes" includes models, patterns and samples;
- 1.10. "technical documentation" means designs, reports, photographs, drawings, plans, specifications, computer software, surveys, calculations and other data, information and material collected, computed, drawn or produced, including computer print-outs;
- 1.11. "Work", unless otherwise expressed in the Contract, means everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contractor's obligations under the Contract.

2. Priority of Documents

In the event of discrepancies or conflicts between these General Conditions and anything in the other documents making up the Contract, the General Conditions govern.

3. Successors and Assigns

The Contract shall ensure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and permitted assigns.

4. Assignment, Subcontracting and Novation

- 4.1. The Contract shall not be assigned in whole or in part by the Contractor without the prior written consent of the Minister and any assignment made without that consent is void and of no effect.
- 4.2. No assignment of the Contract shall relieve the Contractor from any obligation under the Contract or impose any liability upon Her Majesty or the Minister.
- 4.3. Any assignment by the Minister of Her Majesty's interest in the Contract shall include the novation of the Minister's assignee as a party to the Contract. The Contractor shall be obligated to accept the novation of any such assignee and shall have no right to approve or disapprove the novation of such assignee on any basis whatsoever. The parties agree to promptly execute and deliver all such agreements and other instruments as may be reasonably required to give effect to any novation contemplated by this Article.
- 4.4. Neither the whole nor any part of the work may be subcontracted by the Contractor without the prior written consent of the Minister. Every subcontract shall incorporate all the terms and conditions of the Contract which can reasonably be applied thereto.

Time of the Essence

- 5.1. Time is of the essence of the Contract.
- 5.2. Any delay by the Contractor in performing the Contractor's obligations under the Contract which is caused by an event beyond the control of the Contractor, and which could not have been avoided by the Contractor without incurring unreasonable cost through the use of work-around plans including alternative sources or other means, constitutes an excusable delay. Such event may include, but is not restricted to, acts of God, acts of Her Majesty, acts of local or provincial governments, fires, floods, epidemics, quarantine restrictions, strikes or labour unrest, freight embargoes and unusually severe weather.
- 5.3. The Contractor shall give notice to the Departmental Representative immediately after the occurrence of the event that causes the excusable delay. The notice shall state the cause and circumstances of the delay and indicate the portion of the work affected by the delay. When requested to do so by the Departmental Representative, the Contractor shall deliver a description, in a form satisfactory to the Departmental Representative, of work-around plans, including alternative sources and any other means that the Contractor will utilize to overcome the delay and endeavour to prevent any further delay. Upon approval in writing by the Departmental Representative of the work-around plans, the Contractor shall implement the work-around plans and use all reasonable means to recover any time lost as a result of the excusable delay.
- 5.4. Unless the Contractor complies with the notice requirements set forth in the Contract, any delay that would otherwise constitute an excusable delay shall be deemed not to be an excusable delay.
- 5.5. Notwithstanding that the Contractor has complied with the requirements of Article 5.3, the Minister may exercise any right of termination referred to in Article 8.

6. Indemnification

6.1. The Contractor shall indemnify and save harmless Her Majesty and the Minister from and against all claims, demands, losses, damages, costs, expenses, actions, suits and other proceedings, by whomever made, sustained, brought, prosecuted, or threatened to be brought or prosecuted, in any manner based upon, occasioned by or attributable to any injury to or death of a person or damage to or loss of property arising from

any willful or negligent act, omission or delay on the part of the Contractor or the Contractor's employees or agents in performing the work.

- 6.2. The Contractor shall indemnify Her Majesty and the Minister from all costs, charges and expenses whatsoever that Her Majesty sustains or incurs in or about all claims, actions, suits and other proceedings, by whomever made, for the use of the invention claimed in a patent, or infringement or alleged infringement of any patent or any registered industrial design or any copyright resulting from the performance of the Contractor's obligations under the Contract, and in respect of the use of or disposal by Her Majesty of anything furnished pursuant to the Contract.
- 6.3. The Contractor's liability to indemnify Her Majesty and the Minister under the Contract shall not affect or prejudice Her Majesty and the Minister from exercising any other rights under law.

7. Notices

Where in the Contract any notice, request, direction, or other communication is required to be given or made by either party, it shall be in writing and is effective if delivered by hand, or by courier, or if sent by registered mail, or facsimile or other electronic means that provides paper records of the text of the notice, addressed to the party for whom it is intended at the address mentioned in the Contract, and any notice, request, direction or other communication shall be deemed to have been given if by registered mail, when the postal receipt is acknowledged by the other party; if by facsimile or other electronic means, when transmitted. The address of either party may be changed by notice in the manner set out in this provision.

8. Termination or Suspension

- 8.1. The Minister may, by giving notice to the Contractor, terminate or suspend the work with respect to all or any part or parts of the work not completed.
- 8.2. All work completed by the Contractor to the satisfaction of the Minister before the giving of such notice shall be paid for by the Minister in accordance with the provisions of the Contract and, for all work not completed before the giving of such notice, the Minister shall pay the Contractor's costs as determined under the provisions of the Contract and, in addition, an amount representing a fair and reasonable fee in respect of such work.
- 8.3. In addition to the amount which the Contractor shall be paid under Article 8.2, the Contractor shall be reimbursed for the Contractor's cost of and incidental to the cancellation of obligations incurred by the Contractor pursuant to such notice and obligations incurred by the Contractor or to which the Contractor is subject with respect to the work.
- 8.4. Payment and reimbursement under the provisions of Article 8 shall be made only to the extent that it is established to the satisfaction of the Minister that the costs and expenses were actually incurred by the Contractor and that they are fair and reasonable and are properly attributable to the termination or suspension of the work or the part thereof so terminated or suspended.
- 8.5. The Contractor shall not be entitled to be reimbursed any amount which, taken together with any amounts paid or becoming due to the Contractor under the Contract, exceeds the Contract price applicable to the work or the particular part thereof.
- 8.6. The Contractor shall have no claim for damages, compensation, loss of profit, allowance or otherwise by reason of or directly or indirectly arising out of any action taken or notice given by the Minister under the provisions of Article 8 except as expressly provided therein.

9. Termination due to Default of Contractor

- 9.1. The Minister may, by notice to the Contractor, terminate the whole or any part of the work if:
 - 9.1.1. The Contractor becomes bankrupt or insolvent, or a receiving order is made against the Contractor, or an assignment is made for the benefit of creditors, or if an order is made or resolution passed for the winding-up of the Contractor, or if the Contractor takes the benefit of any statute for the time being in force relating to bankrupt or insolvent debtors, or
 - 9.1.2. The Contractor fails to perform any of the Contractor's obligations under the Contract, or in the Minister's view fails to make progress so as to endanger performance of the Contract in accordance with its terms.
- 9.2. In the event that the Minister terminates the work in whole or in part under Article 9.1, the Minister may arrange, upon such terms and conditions and in such manner as the Minister deems appropriate, for the work to be completed that was so terminated, and the Contractor shall be liable to the Minister for any excess costs relating to the completion of the work.
- 9.3. Upon termination of the work under Article 9.1, the Minister may require the Contractor to deliver and transfer title to Her Majesty, in the manner and to the extent directed by the Minister, in any finished work which has not been delivered and accepted prior to such termination and in any materials or work-in-process which the Contractor has specifically acquired or produced for the fulfilment of the Contract. The Minister shall pay the Contractor for all such finished work delivered pursuant to such direction and accepted by the Minister, the cost to the Contractor of such finished work plus the proportionate part of any fee fixed by the Contract and shall pay or reimburse the Contractor the fair and reasonable cost to the Contractor of all materials or work-in-process delivered to the Minister pursuant to such direction. The Minister may withhold from the amounts due to the Contractor such sums as the Minister determines to be necessary to protect Her Majesty against excess costs for the completion of the work.
- 9.4. The Contractor shall not be entitled to be reimbursed any amount which, taken together with any amounts paid or becoming due to the Contractor under the Contract, exceeds the contract price applicable to the work or the particular part thereof.
- 9.5. If, after the Minister issues a notice of termination under Article 9.1, it is determined by the Minister that the default of the Contractor is due to causes beyond the control of the Contractor, such notice of termination shall be deemed to have been issued pursuant to Article 8.1 and the rights and obligations of the parties hereto shall be governed by Article 8.

10. Records to be kept by Contractor

- 10.1. The Contractor shall keep proper accounts and records of the cost of the work and of all expenditures or commitments made by the Contractor including the invoices, receipts and vouchers which shall at reasonable times be open to audit and inspection by the authorized representative(s) of the Minister who may make copies thereof and take extracts therefrom.
- 10.2. The Contractor shall afford facilities for audit and inspection and shall furnish the authorized representative(s) of the Minister with such information as the Minister or they may from time to time require with reference to such invoices, receipts and vouchers.
- 10.3. The Contractor shall not dispose of such invoices, receipts and vouchers without the written consent of the Minister, but shall preserve and keep them available for audit and inspection for such period of time as may be specified elsewhere in the Contract or, in the absence of such specification, for a period of two years following completion of the work.

11. Ownership of Intellectual and Other Property including Copyright

- 11.1. Technical documentation and prototypes produced by the Contractor in the performance of the work under the Contract shall vest in and remain the property of Her Majesty, and the Contractor shall account fully to the Minister in respect of the foregoing in such manner as the Minister shall direct.
- 11.2. Technical documentation shall contain the following copyright notice:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

as represented by the Minister of Transport

11.3. Technical information and inventions conceived or developed or first actually reduced to practice in performing the work under the Contract shall be the property of Her Majesty. The Contractor shall have no rights in and to such technical information and inventions. The Contractor shall not divulge or use such technical information and inventions, other than in performing the work under the Contract, and shall not sell other than to Her Majesty any articles or things embodying such technical information and inventions.

12. Conflict of Interest and Values and Ethics Codes for the Public Service

The Contractor acknowledges that individuals who are subject to the provisions of the Conflict of Interest Act, 2006, c. 9, s. 2, the Conflict of Interest Code for Members of the House of Commons, the Values and Ethics Code for the Public Service or all other codes of values and ethics applicable within specific organizations cannot derive any direct benefit resulting from the Contract.

13. Contractor Status

This is a contract for the performance of a service and the Contractor is engaged under the Contract as an independent contractor for the sole purpose of providing a service. Neither the Contractor nor any of the Contractor's personnel is engaged by the Contract as an employee, servant or agent of Her Majesty. The Contractor agrees to be solely responsible for any and all payments and/or deductions required to be made including those required for Canada or Quebec Pension Plans, Employment Insurance, Workers' Compensation, or Income Tax.

14. Warranty by Contractor

14.1. The Contractor warrants that the Contractor is competent to perform the work required under the Contract in that the Contractor has the necessary qualifications including the knowledge, skill and ability to perform the work.14.2. The Contractor warrants that the Contractor shall provide a quality of service at least equal to that which would generally be expected of a competent contractor in a like situation.

15. Member of House of Commons

No member of the House of Commons shall be admitted to any share or part of the Contract or to any benefit to arise therefrom.

16. Amendments

- 16.1. No amendment of the Contract nor waiver of any of the terms and provisions shall be deemed valid unless effected by a written amendment signed by the Departmental Contracting Authority.
- 16.2. No increase in the total liability of Her Majesty or in the price of the work resulting from any change, modification or interpretation of the documents will be authorized or paid to the Contractor unless such change, modification or interpretation has received the prior approval in writing of the Departmental Contracting Authority.

17. Entire Agreement

The Contract constitutes the entire agreement between the parties with respect to the subject matter of the Contract and supersedes all previous negotiations, communications and other agreements relating to it unless they are incorporated by reference in the Contract.

18. Payment by the Minister

- 18.1. Payment by the Minister to the Contractor for the work will be made within:
 - 18.1.1 30 days following the date on which all of the work has been delivered at the location(s) specified in and pursuant to the Contract and all other work required to be performed by the Contractor under the terms of the Contract has been completed, or
 - 18.1.2 30 days following the date on which an invoice and substantiating documentation are received according to the terms of the Contract, whichever is the latter.
- 18.2. If the Minister has any objection to the form of the invoice or substantiating documentation, the Minister shall notify the Contractor of the nature of the objection within 15 days of receipt of the invoice. "Form of the invoice" means an invoice which contains or is accompanied by such substantiating documentation as the Minister requires. Failure by the Minister to act within 15 days will only result in the dates specified in Article 18.1 to apply for the sole purpose of calculating interest on overdue accounts.

19. Payment of Interest on Overdue Accounts

- 19.1. For the purposes of this Article:
 - 19.1.1. "Average Rate" means the simple arithmetic mean of the Bank Rates in effect at 4:00 p.m. Eastern Standard Time each day during the calendar month which immediately precedes the calendar

month in which payment is made, where the "Bank Rate" means the rate of interest established from time to time by the Bank of Canada as the minimum rate at which the Bank of Canada makes short-term advances to members of the Canadian Payments Association,

- 19.1.2. "date of payment" means the date of the negotiable instrument drawn by the Receiver General for Canada and given for payment of an amount due and payable,
- 19.1.3. an amount is "due and payable" when it is due and payable by the Minister to the Contractor in accordance with the terms of the Contract, and
- 19.1.4. an amount becomes "overdue" when it is unpaid on the first day following the day upon which it is due and payable.
- 19.2. The Minister shall be liable to pay to the Contractor simple interest at the Average Rate plus three (3) per cent per annum on any amount that is overdue, from the date such amount becomes overdue until the day prior to the date of payment, inclusive. Interest shall be paid without notice from the Contractor except in respect of payment which is less than 15 days overdue. No interest will be payable or paid in respect of payment made within such 15 days unless the Contractor so requests after payment has become due.
- 19.3. The Minister shall not be liable to pay interest in accordance with Article 19.2 if the Minister is not responsible for the delay in paying the Contractor.
- 19.4. The Minister shall not be liable to pay interest on overdue advance payments.

20. Schedule and Location of Work

- 20.1. Where the work is to be performed in the offices of the Department of Transport, the Contractor shall, for better coordination, follow the same time schedule as applicable to employees of the Department of Transport,
- 20.2. Where work is to be performed at locations other than those described in Article 20.1, the schedule and location of work will be set forth in the Statement of Work.

21. No Other Benefits

- 21.1. It is understood and agreed that the Contractor will act as an independent contractor and that the Contractor is entitled to no other benefits or payments whatsoever other than those specified in the Terms of Payment.
- 21.2. It is further understood and agreed that entry into the Contract will not result in the appointment or employment of the Contractor as an employee, servant or agent of Her Majesty.

22. Applications, Reports, Payments by Contractor and Applicable Legislation

- 22.1. It shall be the sole responsibility of the Contractor to submit any applications, reports, payments or contributions with respect to Canada or Quebec Pension Plans, Employment Insurance, Workers' Compensation, Income Tax or any other similar matter which may be required by law to be made by the Contractor as a self-employed person in connection with the services to be performed under the Contract.
- 22.2. It shall be the sole responsibility of the Contractor to comply with all federal, provincial and municipal legislation which may have application to the services being performed under the Contract.
- 22.3. It is understood and agreed that the cost to the Contractor of doing those things required under Articles 22.1 and 22.2 is not to be charged to or reimbursed by the Minister in any way; such costs having been taken into consideration and included in the rates of payments indicated in the Terms of Payment.
- 22.4. The Contractor shall comply with all provincial and federal legislation affecting conditions of work and wage rates.

23. Minister's Responsibilities

The Minister shall provide such support, guidance, direction, instruction, acceptances, decisions and information as deemed necessary or appropriate under the Contract.

24. Public Disclosure

The contractor consents, in the case of a contract that has a value in excess of \$10,000, to the public disclosure of basic information — other than information described in any of paragraphs 20(1)(a) to (d) of the Access to Information Act — relating to the contract.

25. Integrity Provisions

25.1 Statement

- 25.1.1 The Contractor must comply with the <u>Code of Conduct for Procurement</u> and must comply with the terms set out in these Integrity Provisions.
- 25.1.2 The Contractor confirms that it understands that convictions of certain offences, a false declaration in its bid, a false declaration under the Contract or failing to maintain up-to-date information requested may lead to a termination for default. If the Contractor or any of its Affiliates fail to remain free and clear of any convictions and any conditional or absolute discharges specified in these Integrity Provisions during the contract period, Canada may, following a notice period, terminate for default. The Contractor understands that a termination for default will not restrict Canada's right to exercise any other remedies that may be available against the Contractor and agrees to immediately return any advance payments.

25.2 List of Names

The Contractor must immediately inform Canada in writing of any changes affecting the list of names of directors and owners during the contract period.

25.3 Information Verification

The Contractor certifies that it is aware, and its Affiliates are aware, that Canada may verify at any time during the contract period, the information provided by the Contractor, including the information relating to the acts or convictions and any conditional or absolute discharges specified in these Integrity Provisions. Canada may request additional information, validations from a qualified third party, consent forms and other evidentiary elements proving identity and eligibility to contract with Canada.

25.4 Lobbying Act

The Contractor certifies that neither it nor its Affiliates have directly or indirectly, paid or agreed to pay, and will not, directly or indirectly, pay a contingency fee to any individual for the solicitation, negotiation or obtaining of the Contract if the payment of the fee would require the individual to file a return under section 5 of the Lobbying Act.

25.5 Canadian Offences Resulting in Legal Incapacity

- 25.5.1 The Contractor has certified that neither it nor any of its Affiliates have been convicted of or have pleaded guilty to an offence under any of the following provisions, which result in legal incapacity under section 750(3) of the <u>Criminal Code</u>, and for which they have not been pardoned or received a record of discharge under the Canadian Pardons subsection:
 - 25.5.1.1 Paragraph 80(1)(d) (False entry, certificate or return), subsection 80(2) (Fraud against Her Majesty) or section 154.01 (Fraud against Her Majesty) of the <u>Financial</u> <u>Administration Act</u>, or
 - 25.5.1.2 Section 121 (Frauds on the government and Contractor subscribing to election fund), section 124 (Selling or Purchasing Office), section 380 (Fraud) for fraud committed against Her Majesty or section 42.22 (Selling defective stores to Her Majesty) of the Criminal Code.
- 25.5.2 the Contractor has not been convicted of or pleaded guilty to the offences described in paragraph (a) and has certified that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be awarded a contract under 25.5.1.

25.6 Canadian Offences

The Contractor has certified that:

- 25.6.1 it and its Affiliates have not, in the last three years, from the date of contract award, been convicted of or pleaded guilty to an offence under any of the following provisions for which it would be ineligible for contract award under these Integrity Provisions and for which they have not been pardoned or received a record of discharge under the Canadian Pardons subsection:
 - 25.6.1.1 section 119 (Bribery of judicial officers, etc.), section 120 (Bribery of officers), section 346 (Extortion), sections 366 to 368 (Forgery and other offences resembling forgery), section 382 (Fraudulent manipulation of stock exchange transactions), section 382.1 (Prohibited insider trading), section 397 (Falsification of books and documents), section 422 (Criminal breach of contract), section 426 (Secret commissions), section 462.31 (Laundering proceeds of crime) or sections 467.11 to 467.13 (Participation in activities of criminal organization) of the Criminal Code, or

- 25.6.1.2 Section 45 (Conspiracies, agreements or arrangements between competitors), section 46 (Foreign directives), section 47 (Bid rigging), section 49 (Agreements or arrangements of federal financial institutions), section 52 (False or misleading representation), section 53 (Deceptive notice of winning a prize) of the Competition Act, or
- 25.6.1.3 Section 239 (False or deceptive statements) of the Income Tax Act, or
- 25.6.1.4 Section 327 (False or deceptive statements) of the Excise Tax Act, or
- 25.6.1.5 Section 3 (Bribing a foreign public official), section 4 (Accounting), or section 5 (Offence committed outside Canada) of the Corruption of Foreign Public Officials Act, or
- 25.6.1.6 Section 5 (Trafficking in substance), section 6 (Importing and exporting), or section 7 (Production of substance) of the Controlled Drugs and Substance Act.
- 25.6.2 the Contractor has not been convicted of or pleaded guilty to the offences described in paragraph 25.6.1 and has certified that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would make that Affiliate ineligible for contract award.

25.7 Foreign Offences

The Contractor has certified that:

- 25.7.1. it and its Affiliates have not, in the last three years, from the date of contract award, been convicted of or pleaded guilty to an offence in a jurisdiction other than Canada of having committed an act or omission that would, in Canada's opinion, be similar to an offence referenced in the Canadian Offences Resulting in Legal Incapacity and the Canadian Offences subsections and for which it would be ineligible for contract award under these Integrity Provisions and for which they have not been pardoned or received a record of discharge under the Foreign Pardons subsection:
 - 25.7.1.1 The court before which the Contractor or the Affiliate of the Contractor appeared acted within the court's jurisdiction;
 - 25.7.1.2 The Contractor or the Affiliate of the Contractor appeared during the court's proceedings or submitted to the court's jurisdiction;
 - 25.7.1.3 The court's decision was not obtained by fraud; and
 - 25.7.1.4 The Contractor or the Affiliate of the Contractor was entitled to present to the court every defense that the Contractor or the Affiliate of the Contractor would have been entitled to present had the proceeding been tried in Canada.
- 25.7.2 it has not been convicted of or pleaded guilty to the offences described in paragraph (25.7.1) and has certified that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be awarded a contract under (25.7.1).

25.8 Ineligibility to Contract with Canada

25.8.1 The Contractor confirms that it understands that if after contract award they have been convicted of certain offences, as described in the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections, they will be ineligible to contract with Canada. If, after contract award, a Contractor becomes ineligible for contract award, Canada may, following a notice period, declare the Contractor to be ineligible and, to the extent that a contract has been awarded:

- 25.8.1.1 Terminate the contract for default; or
- 25.8.1.2 Require the Contractor to enter into an Administrative Agreement with the Minister of PWGSC on such terms and conditions as are necessary to safeguard the integrity of the procurement process.
- 25.8.2 The Contractor confirms that it understands that where its Affiliate has been convicted of certain offences, as described in the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections, the Affiliate is ineligible to contract with Canada. If, after contract award, an Affiliate of a Contractor becomes ineligible to contract with Canada, Canada may, following a notice period, declare the Contractor to be ineligible and, to the extent that a contract has been concluded:
 - 25.8.2.1 Terminate the contract for default if, in the opinion of Canada, there is evidence that the Contractor directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of certain acts or offences that make that Affiliate ineligible; or
 - 25.8.2.2 Require the Contractor to enter into an Administrative Agreement with the Minister of PWGSC on such terms and conditions as are necessary to safeguard the integrity of the procurement process.
- 25.8.3 The Contractor confirms that it understands that where it has been declared to be ineligible to contract with Canada under the <u>Ineligibility and Suspension Policy</u>, it is also ineligible to contract with Canada under these Integrity Provisions for the duration of the period that has been determined by the Minister of PWGSC. Where the Contractor has been declared to be ineligible under the Ineligibility and Suspension Policy after contract award, Canada may, following a notice period:
 - 25.8.3.1 Terminate the contract for default; or
 - 25.8.3.2 Requires the Contractor to enter into an Administrative Agreement with the Minister of PWGSC on such terms and conditions as are necessary to safeguard the integrity of the procurement process.
- 25.8.4 The Contractor confirms that it understands that where it or its Affiliates have been held responsible for breaches under the Lobbying Act subsection, it is ineligible to contract with Canada under these Integrity Provisions for the duration of the period that has been determined by the Minister of PWGSC. Where the Contractor has been declared to be ineligible under the Ineligibility and Suspension Policy after contract award, Canada may, following a notice period:
 - 25.8.4.1 Terminate the contract for default; or
 - 25.8.4.2 Require the Contractor to enter into an Administrative Agreement with the Minister of PWGSC on such terms and conditions as are necessary to safeguard the integrity of the procurement process.

25.9 Declaration of Offences Committed

Where a Bidder or its Affiliate is unable to certify that it has not been convicted of any of the offences referenced under the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections, the Bidder must provide with its bid the completed Bidder's Declaration Form, to be given further consideration in the procurement process.

25.10 Period of Ineligibility.

The following rules determine the period for which a Contractor or its Affiliate that has been convicted of certain offences is, ineligible to contract with Canada:

- 25.10.1 for all offences referenced under the Canadian Offences Resulting in Legal Incapacity subsection for which a Contractor or its Affiliate has pleaded guilty to or has been convicted of, the period of ineligibility to be awarded a contract is indefinite, subject to the Canadian Pardons subsection;
- 25.10.2 subject to an Administrative Agreement, for all offences referenced under the Canadian Offences and Foreign Offences subsections for which a Contractor or its Affiliate has pleaded guilty to or been convicted of, as the case may be, in the last three years, the period of ineligibility to contract with Canada is ten years from the date of determination by the Minister of PWGSC, subject to the Canadian Pardons and Foreign Pardons subsections;
- 25.10.3 subject to an Administrative Agreement, for all breaches under the Lobbying Act subsection for which a Contractor or its Affiliate has been found responsible, in the last three years, the period of ineligibility to contract with Canada is ten years from the date of determination by the Minister of PWGSC.

25.11 Canadian Pardons

A determination of ineligibility to contract with Canada will not be made or maintained by the Minister of PWGSC under these Integrity Provisions, in respect of an offence or act that gave rise or that could give rise to a determination of ineligibility, if the Contractor or its Affiliate has:

- 25.11.1 been granted an absolute discharge in respect of the offence, or has been granted a conditional discharge in respect of the offence and those conditions have been satisfied;
- 25.11.2 been granted a pardon under Her Majesty's royal prerogative of mercy;
- 25.11.3 been granted a pardon under section 748 of the Criminal Code;
- 25.11.4 received a record of suspension ordered under the Criminal Records Act; and
- 25.11.5 been granted a pardon under the <u>Criminal Records Act</u>, as that Act read immediately before the day section 165 of the <u>Safe Streets and Communities Act</u> comes into force.

25.12 Foreign Pardons

A determination of ineligibility to contract with Canada will not be made or maintained, as the case may be, by the Minister of PWGSC in respect of matters referenced in the Foreign Offences subsection and with respect to an offence or act that gave rise or will give rise to a determination of ineligibility, if the Contractor or its Affiliate, has at any time, benefited from foreign measures that are similar to Canadian pardons at the sole discretion of Canada, conditional discharges, absolute discharges, records of suspension, or restoration of legal capacities by the Governor in Council.

25.13 Period of Ineligibility for Breaching Administrative Agreements

The Contractor confirms that it understands that where it has concluded an Administrative Agreement and that it has breached any of its terms and conditions, the Minister of PWGSC will lengthen the period of ineligibility for a period to be determined by the Minister of PWGSC.

25.14 Obligations on Subcontractors

The Contractor confirms that it understands that to the extent that it relies on a subcontractor(s) to perform the Contract, the Contractor will not enter into a subcontract with a company that has been convicted of or pleaded guilty or an Affiliate of the company has been convicted of or pleaded guilty, as the case may be, to any of the offences referenced in the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections for which no pardon or equivalent has been received under the Canadian Pardons and Foreign Pardons subsections, without the prior written approval of the Minister of PWGSC. Where the Contractor has entered into a contract with an ineligible subcontractor and for which no prior written approval has

been received by Canada, the Minister of PWGSC will declare the Contractor to be ineligible to contract with Canada for a period of five years

RESULTANT CONTRACT CLAUSES ANNEX B STATEMENT OF WORK

COMPOSITE CYLINDER PROJECT CONTRACT

1. Introduction and Background

1.1 Introduction

The Transportation of Dangerous Goods Directorate (TDG), as part of the Safety and Security Group at Transport Canada (TC) serves as the major source of regulatory development, information, and guidance on dangerous goods transport for the public, industry, and government employees. The transportation of compressed gases in Canada is regulated under the Transportation Dangerous Goods Act, 1992 and its Regulations (TDG Regulations).

1.2 Background

Composite compressed gas cylinders are constructed by winding glass or carbon fibre filaments over a metal liner to form a composite overwrap. One example of use for these cylinders is in emergency response. First responders use composite cylinders containing compressed air in hazardous situations where a self-contained breathing apparatus (SCBA) is required. These cylinders have a 15-year service life, and require periodic visual inspections and hydrostatic testing throughout their service life to validate their structural integrity and safety.

In 2012 and 2014, the United States Pipeline and Hazardous Material Safety Administration (PHMSA) performed studies in order to evaluate whether composite cylinders that had reached the end of their 15 year service life were safe for continued used. Based on these studies, PHMSA issued several Special Permits (SP) to extend the service life of certain DOT-CFFC (carbon fibre composite overwrap with aluminum liner) and DOT-FRP-1 (glass fibre reinforced plastic overwrap with aluminum liner) cylinders for an additional 15 years, so long as they are requalified at the 15 year mark and every 5 years thereafter using Modal Acoustic Emission (MAE) testing.

TDG has a similar role to PHMSA with respect to container approvals, and Transport Canada's TC-3CCM specification is similar to DOT-CFFC cylinders. Many of these cylinders have reached, or are approaching, the end of their service life. In addition, many DOT-CFFC cylinders are dual-marked with Transport Canada approval. As such, these life-extended cylinders under DOT SPs could potentially come across the border. TDG-Engineering Services is seeking to obtain a greater understanding of the performance of composite cylinders beyond their current 15-year service life, as well as the validation of MAE as a method of identifying composite cylinders at risk of reduced burst pressure to allow for reciprocity with DOT concerning life extension of carbon fibre cylinders.

2. Objective

The objective of this project is to:

- 2.1 Determine whether composite TC-3CCM specification cylinders typically used by Canadian first responders have the long-term strength and integrity required to withstand fill cycles beyond their 15-year service life with no reduction in burst pressure.
- 2.2 Evaluate Modal Acoustic Emission and optionally Acoustic Emission testing methods for use in cylinder requalification and life extension applications.

3. Scope of Work

The selected bidder, hereinafter referred to as the "Contractor" shall carry out the study as detailed below.

3.1. Task 1: Test Plan Development

The Contractor shall develop a test plan to evaluate the extension of TC-3CCM service life beyond 15 years following the steps detailed below

- 3.1.1 List cylinder tests to be performed and number of cylinders required for each test. Tests listed must include the following tests on 2-3 types of cylinders, using the specified number of cylinders, or appropriate alternate testing and/or number of cylinders with suitable justification:
 - i. Initial requalification testing in accordance with Clause 24 of CSA B339-18 (including visual inspection and hydrostatic testing as per Compressed Gas Association (CGA) publications referenced within CSA B339-18, including CGA C-1-2016 and CGA C-6.2-2013) on all collected cylinders.
 - ii. Burst test on at least 3 used cylinders of each type as per CSA B339-18: Clause 4.14.5.
 - iii. Ambient temperature cycle test for 15 year design life at maximum developed pressure on at least 4 used cylinders of each type as per ISO 11119-2: 2012: Clause 8.5.5.
 - iv. Flaw test on at least 4 used cylinders of each type as per ISO 11119-2: 2012: Clause 8.5.7.
 - v. Drop test on at least 2 used cylinders of each type as per CSA B339-18: Clause 9.13.8.
 - vi. MAE monitoring of cylinders during the course of all cycling, following industry best practice method.
 - vii. Measurement of volumetric expansion at test pressure every 2500 cycles (equivalent to every 5 years of operation) during the course of all cycling, and identify cylinders that would require removal from service.

Tests listed may include the following tests on 2-3 types of cylinders, using the specified number of cylinders, or appropriate alternate testing and/or number of cylinders with suitable justification:

- i. Environmental cycle test on 2 used cylinders of each type as per ISO 11119-2: 2012: Clause 8.5.6 or CSA B339-18: Clause 9.13.4.
- ii AE monitoring of cylinders during the course of all cycling, following industry best practice method.

- 3.1.2 Describe methodology and pass/fail criteria of each test.
- 3.1.3 Identify appropriate sites for collection of used TC-3CCM cylinders which are within 2 years of their 15-year service life, prior to their disposal. Cylinders shall be of two or three types of cylinder (i.e. particular manufacturer, material, design, and volume) in sufficient number to complete the proposed tests. The marking on these cylinders can be a TC-SU marking as TC-3CCM cylinders were initially permitted to be manufactured only by equivalency certificate.

3.2 Task 2: Used Cylinder Procurement

The Contractor shall procure the required number of used TC-3CCM cylinders from cylinder users such as first responder organizations following the steps detailed below

- 3.2.1 Collect the required number of used TC-3CCM cylinders (in sufficient quantities for completion of the test plan specified in Task 1, as approved by TC) and transport them to the test facility, as per the test plan and in accordance with relevant Transportation of Dangerous Goods Regulations
- 3.2.2 Obtain the record of the filling and requalification history for the collected cylinders where available.

3.3 Task 3: Used Cylinder Testing

The Contractor shall perform service life testing and analyse the results following the steps detailed below:

- 3.3.1 Perform cylinder testing as defined in the test plan developed in Task 1, as approved by TC.
- 3.3.2 During initial requalification testing, reject any cylinder which does not pass requalification and record reason for rejection.
- 3.3.3 During the course of all cycling, measure volumetric expansion as defined by the approved test plan and identify cylinders that would require removal from service.

3.4 Task 4: Performance Reporting

3.4.1 Monthly Update Meetings

Contractor shall provide Monthly Update Meetings by teleconference or in person with the technical authority for the duration of the project in order to:

- i. Clarify needs, including discussion of cylinder types required, hurdles to obtaining EOL cylinders, and potential dates of collection.
- ii. Inform TC on the progress of the project and identify any new problems and proposed workarounds, as well as problems that have been resolved.
- 3.4.2 Progress Reports

The Contractor must provide written or oral progress reports at the request of TC. The Progress Reports must include the following to ensure that the project is progressing in accordance with the agreement:

- i. The status of the project,
- ii. Proposed approach(es),
- iii. Implementation, and

iv. Results of work.

3.4.3 Communications

In addition to the timely submission of all deliverables and fulfillment of obligations specified in the agreement, the Contractor must facilitate and maintain regular communication with TC and to immediately notify the TC of any issues, problems, or areas of concern (e.g. delays) in relation to any work completed under the agreement, as they arise. Communication may include: phone calls, electronic mail, faxes, mailings, and meetings.

4. Deliverables

The Contractor shall prepare and provide the following deliverables to Transport Canada

- 1. Draft test plan, as described in Task 1 above.
- 2. Final test plan, as described in Task 1 above.
- 3. List of collected used cylinders, as described in Task 2 above.
- 4. Raw data for all tested cylinders.
- 5. Draft project report, containing as follows:
 - a) Type of cylinders collected,
 - b) Results of initial requalification for all cylinders,
 - c) Test methods and methodology for cylinder monitoring,
 - d) Results of all testing, including any trends and correlations found,
 - e) Lessons learned and potential future work, and
 - f) Raw data set including photos and/or video as an appendix.
- 6. Draft project research summary, containing the information defined in Transport Canada's template, attached as Attachment A hereto.
- 7. Final report and research summary delivered to Transport Canada no later than 30 days after receipt of Transport Canada's comments on the draft versions.

All reports must be delivered in electronic format using the most appropriate format of a) through e), listed below:

- a) Adobe Acrobat (PDF),
- b) Microsoft Word (including photos of testing and/or test results).
- c) Microsoft Excel,
- d) Microsoft PowerPoint, and
- e) Mutually agreed-upon format for multimedia (e.g. videos, photos).

5. Inspection and Acceptance

All deliverables and services rendered under any contract are subject to inspection by the TC Project Authority defined in the Contract. Should any deliverables not be to the satisfaction of the TC Project Authority, as submitted, the TC Project Authority shall have the right to reject it or to require correction before payment will be authorized.

TC reserves the right to observe cylinder testing in progress at contractor facilities.

This Contract shall not be considered to have been completed until the Contractor has demonstrated to the satisfaction of the Project Authority that the Project Report meets the requirements detailed in this SOW.





ATTACHMENT A TO ANNEX B STATEMENT OF WORK TITLE OF THE RESEARCH RESULTS RESEARCH SUMMARY

Transportation of Dangerous Goods | Scientific Research Division

SUMMARY

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

INSERT PHOTO

Right-click to change image. Use "alt-text" for each image.

Figure 1

BACKGROUND

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

OBJECTIVES

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo conseguat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper

suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo conseguat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem



euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper

suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

METHODS

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo conseguat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam euismod tincidunt ut laoreet dolore magna euismod tincidunt ut laoreet dolore magna euismod tincidunt ut laoreet dolore magna erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo

INSERT PHOTO

Right-click to change image.

Use "alt-text" for each image.

Figure 2

RESULTS

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

CONCLUSIONS

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

DOCUMENT NUMBER: 15165429

2019-06-20



euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo conseguat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo conseguat. Duis autem

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

FUTURE ACTION

veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

REFERENCES

Author. (Year). Journal Title. *Journal Name*, Pages.

Author. (Year, Month Day). *Name of Web Page*. Retrieved from Name of Web Site: URL

ISBN:

DOCUMENT NUMBER: 15165429

2019-06-20

TP:

ACKNOWLEDGEMENTS

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla

CONTACT

Full Name of TDG Contact
Official Title of Contact
TC.TDGScientificResearchRecherchescientifiqueTMD.TC@tc.gc.
ca

KEYWORDS

euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam iriure dolor in hendrerit in vulputate velit

