



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

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

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau

Québec

K1A 0S5

Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

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

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

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

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

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du

fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Industrial Vehicles & Machinery Products Division

LEFTD - HS Division

140, O'Connor Street/

140, rue O'Connor,

East Tower, 4th Floor/

Tour Est, 4e étage

Ottawa

Ontario

K1A 0S5

Title - Sujet TMD Stoplog Lifter Inspection		
Solicitation No. - N° de l'invitation EP168-200068/A	Date 2019-09-23	
Client Reference No. - N° de référence du client 20200068		
GETS Reference No. - N° de référence de SEAG PW-\$\$HS-652-77740		
File No. - N° de dossier hs652.EP168-200068	CCC No./N° CCC - FMS No./N° VME	
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-11-05		Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>		
Address Enquiries to: - Adresser toutes questions à: Lafontaine, Raphael		Buyer Id - Id de l'acheteur hs652
Telephone No. - N° de téléphone (613) 296-5030 ()	FAX No. - N° de FAX () -	
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA PORTAGE III 11 LAURIER ST Gatineau Quebec K1A0S5 Canada		

Instructions: See Herein

Instructions: Voir aux présentes

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

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PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation and resulting contract document is divided into six (6) parts plus annexes as follows:

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

The Annexes include the Statement of Work dated (2019-09-04), Annex A – Pricing, Annex A1- Evaluation of Aggregate Price, Annex B - Mandatory Technical Evaluation Criteria and Annex C - Electronic Payment Instruments, the Statement of Work, and the Task Authorization Form 572.

1.2 Statement of Work

The Department of Public Services and Procurement Canada (PSPC) required a team of inspectors, under the direction of a Professional Engineer, who will undertake inspection work and “as and when requested basis” for engineering assistance for repairs on the stoplog lifter (specialized crane) at the Timiskaming Dam Complex in accordance with the Statement of Work (SOW) dated (2019-09-04), and as described in the Annex A – Pricing.

The period of the contract shall be for three (3) years with three (3) additional one-year option periods.

1.3 Security Requirement

There are no security requirement associated with this requirement.

1.4 Trade Agreements

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

1.5 Comprehensive Land Claims Agreements

This bid solicitation is to establish a contract with task authorizations for the delivery of the requirement detailed in the bid solicitation to the Identified Users across Canada, excluding locations within Yukon, Northwest Territories, Nunavut, Quebec, and Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirement for deliveries within CLCAs areas within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador will have to be treated as a separate procurement, outside the resulting contract.

1.6 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.

1.7 epost Connect service

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

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

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

The [2003](#) (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

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

Delete: 60 days
Insert: 90 days

2.2 Submission of Bids

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

Note: For bidders choosing to submit using epost Connect for bids closing at the Bid Receiving Unit in the National Capital Region (NCR) the email address is:

tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

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:

- a) an individual;
- b) an individual who has incorporated;

- c) a partnership made of former public servants; or
- d) 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:

- a) name of former public servant;
- b) conditions of the lump sum payment incentive;
- c) date of termination of employment;
- d) amount of lump sum payment;
- e) rate of pay on which lump sum payment is based;
- f) period of lump sum payment including start date, end date and number of weeks;
- g) 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 seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.5 Applicable Laws

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

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

2.6 Improvement of Requirement during Solicitation Period

Should bidders consider that the specifications, Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least seven (7) calendar days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications
Section IV: Additional Information

If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:

Section I: Technical Bid (2 hard copies)
Section II: Financial Bid (1 hard copy)
Section III: Certifications (1 hard copy)
Section IV: Additional Information (1 hard copy)

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

If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

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

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

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

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

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

Section I: Technical Bid

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

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

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Annex A – Pricing.

Bidders must submit firm prices, in Canadian dollars, Delivered Duty Paid at destination, Incoterms 2000, Canadian Custom Duties and Excise Taxes included where applicable and Applicable Taxes must be shown separately.

3.1.1 Electronic Payment of Invoices – Bid

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

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

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

3.1.2 SACC Manual Clauses

SACC Reference	Title	Date
C3011T	Exchange Rate Fluctuation	2013-11-06

Section III: Certifications

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

Section IV: Additional Information

3.1.3 Best Delivery Date - Bid

While completion of the work is requested by November 30th, 2019, the best completion date that could be offered is _____.

3.1.4 Supplier Contacts

Canada requests that Bidders provide the Contractor's Representative contact information in Part 6.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

Bidders must demonstrate their compliance with all mandatory technical criteria detailed Annex B - Mandatory Technical Evaluation Criteria, by providing substantial information describing completely and in detail how each requirement is met or addressed. Simply repeating the statement contained in the bid solicitation is not sufficient

4.1.2 Financial Evaluation

Bidders must provide with their bid all financial information requested in the bid solicitation, at Annex A – Pricing, and in accordance with the Basis of Payment.

4.1.2.1 Mandatory Financial Criteria

The prices of the bid must be in Canadian dollars, DDP Delivered Duty Paid at destination, Incoterms 2000, Canadian Custom Duties and Excise Taxes included where applicable, and Applicable Taxes are extra

4.1.3 Evaluated Aggregate Price

Bids will be evaluated on an aggregate price basis in accordance with Annex A1 – Evaluation of Aggregated Price.

4.2 Basis of Selection

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

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

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

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

5.1 Certifications Required with the Bid

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

5.1.1 Integrity Provisions - Declaration of Convicted Offences

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

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame 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 [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

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

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

5.2.3 Additional Certifications Precedent to Contract Award

5.2.3.1 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 nonresponsive.

5.2.3.2 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.

5.2.3.3 General Environmental Criteria Certification

The Bidder must select and complete one of the following two certification statements.

- A) The Bidder certifies that the Bidder is registered or meets ISO 14001.

Bidder's authorized representative signature

Date

Or

- B) The Bidder certifies that the Bidder meets and will continue to meet throughout the duration of the contract, a minimum of four (4) out of six (6) criteria identified in the table below.

The Bidder must indicate which four (4) criteria, as a minimum, are met.

Green Practices within the Bidders' organization	Insert a checkmark for each criterion that is met
Promotes a paperless environment through directives, procedures and/or programs	
All documents are printed double sided and in black and white for day to day business activity unless otherwise specified by your client	
Paper used for day to day business activity has a minimum of 30% recycled content and has a sustainable forestry management certification	
Utilizes environmentally preferable inks and purchase remanufactured ink cartridges or ink cartridges that can be returned to the manufacturer for reuse and recycling for day to day business activity.	

Recycling bins for paper, newsprint, plastic and aluminum containers available and emptied regularly in accordance with local recycling program.	
A minimum of 50% of office equipment has an energy efficient certification.	

Bidder's authorized representative signature

Date

PART 6 - RESULTING CONTRACT CLAUSES

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

6.1 Security Requirement

There is no security requirement applicable to the contract.

6.2 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work dated (2019-09-04).

6.3 Work Categories

6.3.1 Category 1 – Known Work

Consist of all scheduled activities in accordance with the Statement of Work dated (2019-09-04)

6.3.2 Category 2 – Additional Work Requirement (AWR)

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

6.4 Task Authorization

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

6.4.1 Task Authorization Process

- (1) The Technical Authority will provide the Contractor with a description of the task using the "Task Authorization Form PWGSC-TPSGC 572.
- (2) The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis (bases) and methods of payment as specified in the Contract.
- (3) The Contractor must provide the Technical Authority, within 10 calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.
- (4) The Contractor must not commence work until a TA authorized by the Technical Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

6.4.2 Task Authorization Limit

The Technical Authority may authorize individual task authorizations up to a limit of \$25,000.00
Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of that limit must be authorized by the Technical Authority and Contracting Authority before issuance.

6.4.3 Canada's Obligation - Portion of the Work - Task Authorizations

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

6.4.4 Periodic Usage Reports - Contracts with Task Authorizations

The Contractor must compile and maintain records on its provision of services to the federal government under authorized Task Authorizations issued under the Contract.

The Contractor must provide this data in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "nil" report.

The data must be submitted on a quarterly basis to the Contracting Authority.

The quarterly periods are defined as follows:

1st quarter: April 1 to June 30;

2nd quarter: July 1 to September 30;

3rd quarter: October 1 to December 31; and

4th quarter: January 1 to March 31.

The data must be submitted to the Contracting Authority no later than fifteen days (15) calendar days after the end of the reporting period.

Reporting Requirement- Details

A detailed and current record of all authorized tasks must be kept for each contract with a task authorization process. This record must contain (contracting authority to edit the text as applicable):
For each authorized task:

- i. the authorized task number or task revision number(s);
- ii. a title or a brief description of each authorized task;
- iii. the total estimated cost specified in the authorized Task Authorization (TA) of each task, exclusive of Applicable Taxes;
- iv. the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;
- v. the start and completion date for each authorized task; and
- vi. the active status of each authorized task, as applicable.

For all authorized tasks:

- the amount (exclusive of Applicable Taxes) specified in the contract (as last amended, as applicable) as Canada's total liability to the contractor for all authorized TAs; and
- the total amount, exclusive of Applicable Taxes, expended to date against all authorized TAs

6.5 Standard Clauses and Conditions

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

6.5.1 General Conditions

2035 (2018-06-21) General Conditions – Higher Complexity - Services, apply to and form part of the Contract.

6.6 Period of the Contract

The period of the Contract is from **(to be inserted by PWGSC)** to **(to be inserted by PWGSC)** inclusive.

6.6.1 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to three (3) additional one (1) year periods under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least thirty (30) calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

6.6.2 Comprehensive Land Claims Agreements (CLCAs)

The Contract with Task Authorizations is to establish the delivery of the requirement detailed under the Contract, to the Identified Users across Canada, excluding locations within Yukon, Northwest Territories, Nunavut, Quebec, and Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirement for deliveries within CLCAs areas within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador will have to be treated as a separate procurement outside the Contract.

6.7 Authorities

6.7.1 Contracting Authority

The Contracting Authority for the Contract is:

Raphael Lafontaine
Supply Officer
Public Works and Government Services Canada
Acquisitions Branch
Logistics, Electrical, Fuel and Transportation Directorate
HS Division
L'Esplanade Laurier (LEL) East Tower, 4th floor
140, O'Connor Street, Ottawa (Ontario) K1A 0S5
Telephone: 613 296-5030
E-mail address: raphael.lafontaine@pwgsc-tpsgc.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.

6.7.2 Procurement Authority

The Procurement Authority for the Contract is:

Name: **(To be inserted by PWGSC)**

Telephone: _____

Facsimile: _____

E-mail address: _____

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

6.7.3 Technical Authority

The Technical Authority for the Contract is:

Name: **(To be inserted by PWGSC)**

Telephone: _____

Facsimile: _____

E-mail address: _____

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

6.7.4 Contractor's Representative

The name and particulars of the person to be contacted for general enquiries and follow-up purposes:

Name: _____

Title: _____

Telephone: ____-____-____

E-mail address: _____

6.8 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.

6.9 Payment**6.9.1 Basis of Payment – Firm Price**

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

6.9.2 Basis of Payment for Additional Work Requirement (AWR)

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the Contractor will be paid the firm price, in accordance with the basis of payment, in Annex A – Pricing, as specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

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

6.9.3 Limitation of Expenditure - Cumulative Total of all Task Authorizations

1. Canada's total liability to the Contractor under the Contract for all authorized Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of \$ **(to be inserted at contract award)**. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - a. when it is 75 percent committed, or
 - b. four (4) months before the contract expiry date, or
 - c. as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions, whichever comes first.
4. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority, a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

6.9.5 Method of Payment – Known Work

Milestone Payments - Not subject to holdback - H3010C (2016-01-18)

6.9.5.1 Schedule of Milestones for Known Work

The schedule of milestones for Known Work, upon which payments will be made in accordance with the Contract, is as follows:

- For the deliverables described in the Statement of Work, Section 4.1 ACTIVITY 1 – Initial Submittals: Upon the Technical Authority's acceptance of final versions of all documentation described: 100% of Firm Price from Table 1 in Annex A – Pricing.
- For the deliverables described in the Statement of Work, Section 4.2 ACTIVITY 2 – Fieldwork for First Inspection: Upon the Technical Authority's acceptance of final versions of all documentation described: 100% of Firm Price from Table 1 in Annex A – Pricing.
- For the activities and deliverables described in the Statement of Work, Section 4.3 ACTIVITY 3 – Structural Analysis and Activity 6 – Certification :
 - Upon Technical Authority's acceptance of final version of annual inspection report: 90% of Firm Price for that year from Table 1
 - Upon Technical Authority's acceptance of Professional Engineer Certification as stated in section 4.6 1) and 2) 100% of Firm Price for that year from Table 1 and the remaining 10% of Activity 3 – Structural Analysis.
- For the activities and deliverables described in the Statement of Work, Section 4.4 ACTIVITY 4 – Annual Inspection and Activity 6 – Certification :
 - Upon Technical Authority's acceptance of final version of annual inspection report: 90% of Firm Price for that year from Table 1
 - Upon Technical Authority's acceptance of Professional Engineer Certification as stated in section 4.6 1) and 2) 10% of Firm Price for that year from Table 1 and

the remaining 10% of Activity 4 – Annual Inspection.

- For the deliverables described in the Statement of Work, Section 4.5 ACTIVITY 5 – Report: Upon the Technical Authority's acceptance of final versions of all documentation described: 100% of Firm Price from Table 1 in Annex A – Pricing.

6.9.6 Method of Payment – Additional Work Requirement

6.9.6.1 Additional Work Requirement – Labor – Firm Hourly Rates

H1001C (2008-05-12) – Multiple Payment

6.9.7 Electronic Payment of Invoices – Contract

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

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

6.9.8 Time Verification

C0711C (2008-05-12) – Time Verification

6.10 Certifications and Additional Information

6.10.1 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.

6.10.2 SACC Manual Clauses

A9117C (2007-11-30) T1204 - Direct Request by Customer Department, apply to and form part of the Contract.

6.11 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions.
2. Invoices cannot be submitted before delivery, inspection and acceptance of the vehicle/equipment/service.
3. The Applicable Taxes must be calculated on the total amount of the invoice before the holdback is applied. At the time the holdback is claimed, there will be no taxes payable as they were claimed and payable under the previous invoice for the vehicle/equipment/service.
4. Upon delivery, inspection and acceptance of all ancillary items related to such vehicle/equipment/service the Contractor can submit an invoice for the release of the holdback.

5. Each invoice must be supported by:

(a) a copy of the invoices, receipts, vouchers for all direct expenses, and all travel and living expenses;

6. The Contractor is requested to provide invoices in electronic format unless otherwise specified by the Contracting Authority or Procurement Authority, thereby reducing printed material.

7. Invoices must be distributed as follows:

(a) The original must be forwarded or emailed to the Procurement Authority identified under the section entitled "Authorities" of the Contract for acceptance and payment.

(b) One (1) copy must be forwarded or emailed to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

(c) One (1) copy must be forwarded to the consignee.

6.12 Applicable Laws

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

6.13 Priority of Documents

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

(a) the Articles of Agreement;

(b) the general conditions 2035 (2018-06-21);

(c) Statement of Work dated (2019-09-04)

(d) Annex A, Pricing;

(e) Task Authorizations Form 572;

(f) the Contractor's bid dated To be inserted by PWGSC, as amended on To be inserted by PWGSC.

6.14 SACC Manual Clauses

SACC Reference	Title	Date
A1009C	Work Site Access	2008-05-12
A9068C	Government Site Regulations	2010-01-11
D2000C	IMarking	2007-11-30
D2001C	Labelling Electrical	2007-11-30
B1501C	Equipment	2018-06-21

6.15 Insurance

6.15.1 Insurance – Specific Requirements

The Contractor must comply with the insurance requirements specified in the following article 6.15.2 Commercial General Liability Insurance. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its

obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. Coverage must be placed with an Insurer licensed to carry out business in Canada. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

6.15.2 Commercial General Liability Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.

2. The Commercial General Liability policy must include the following:

- a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
- b. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
- c. Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.
- d. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
- e. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
- f. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
- g. Employees and, if applicable, Volunteers must be included as Additional Insured.
- h. Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)
- i. Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
- j. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
- k. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

l. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.

m. Non-Owned Automobile Liability - Coverage for suits against the Contractor resulting from the use of hired or non-owned vehicles.

n. Sudden and Accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.

o. Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

Director Business Law Directorate,
Quebec Regional Office (Ottawa),
Department of Justice,
284 Wellington Street, Room SAT-6042,
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

6.16 Cellular Phones, Satellite Phones and/or Pagers

The Contractor must maintain an uninterrupted communication service. Note that some areas of the contract do not have cellular service.

The Contractor's Foreman or Site Supervisor must be equipped with a cellular phone, satellite phone, and/or pager at all times. All expenses including installation, air time, activating fees, and the cost of the phones/pagers themselves, will be the responsibility of the Contractor.

6.17 Post-Contract Award Meeting

Within ten (10) calendar days from the effective date of the Contract, the Contractor must contact the Contracting Authority to determine if a post-contract award meeting is required. A meeting will be convened at the discretion of the Technical Authority after contract award to review technical and contractual requirements. The Contractor must be responsible for the preparation and distribution of the minutes of meeting within five (5) calendar days after the meeting has been held. The meeting will be held at the Contractor's facilities or at Public Works and Government Services Canada facility or via

teleconference, at Canada's discretion at no additional cost to Canada, with representatives of the Contractor and Public Works and Government Services Canada.

ANNEX A - PRICING

- Year 1:** The initial period of the Contract is the period from date of the Contract to **to be inserted by PWGSC** inclusive.
- Year 2:** The second year of the Contract is the period from date of the Contract to **to be inserted by PWGSC** inclusive.
- Year 3:** The third year of the Contract is the period from date of the Contract to **to be inserted by PWGSC** inclusive.
- Extended Period Option 1 Year 4:** The extended period option 1 of the Contract is the period from **to be inserted by PWGSC** to **to be inserted by PWGSC** inclusive.
- Extended Period Option 2 Year 5:** The extended period option 2 of the Contract is the period from **to be inserted by PWGSC** to **to be inserted by PWGSC** inclusive.
- Extended Period Option 3 Year 6:** The extended period option 3 of the Contract is the period from **to be inserted by PWGSC** to **to be inserted by PWGSC** inclusive.

Table 1

Activity	Year 1 (firm)	Year 2 (firm)	Year 3 (firm)	Option 1 Year 4 (firm)	Option 2 Year 5 (firm)	Option 3 Year 6 (firm)
ACTIVITY 1 – Preliminary Submittals (Year 1 Only)		N/A	N/A	N/A	N/A	N/A
ACTIVITY 2 – Fieldwork for First Inspection (Year 1 Only)		N/A	N/A	N/A	N/A	N/A
ACTIVITY 3 – Structural Analysis of Ontario Stoplog Lifter (Year 1 only)		N/A	N/A	N/A	N/A	N/A
ACTIVITY 4 – Annual Inspections (Years 2, 3, and Optional Years)	N/A					
ACTIVITY 5 – Report (All Years)						
ACTIVITY 6 – Certification (All Years)						

Table 2

Pricing - Task Authorizations	
Activity 7 - Engineering Assistance for Repairs	Hourly Rate
Year 1 - Firm	
Year 2 - Firm	
Year 3 - Firm	
Option Year 1 - Firm	
Option Year 2 - Firm	
Option Year 3 - Firm	

ANNEX A1 – EVALUATION OF AGGREGATE PRICE

Bids will be evaluated on an aggregate price basis as follows:

1. The sum of the firm prices for all task of Table 1 will determine the subtotal of table 1 (**A**);
2. The estimated time for evaluation of table 2 multiplied by the shop rate will determine the subtotal of table 2 (**B**);

The sum of A+B will determine the aggregate evaluated price of the bid

Activity	Year 1 (firm)	Year 2 (firm)	Year 3 (firm)	Option 1 Year 4 (firm)	Option 2 Year 5 (firm)	Option 3 Year 6 (firm)
ACTIVITY 1 – Preliminary Submittals (Year 1 Only)		N/A	N/A	N/A	N/A	N/A
ACTIVITY 2 – Fieldwork for First Inspection (Year 1 Only)		N/A	N/A	N/A	N/A	N/A
ACTIVITY 3 – Structural Analysis of Ontario Stoplog Lifter (Year 1 only)		N/A	N/A	N/A	N/A	N/A
ACTIVITY 4 – Annual Inspections(Years 2, 3, and Optional Years)	N/A					
ACTIVITY 5 – Report (All Years)						
ACTIVITY 6 – Certification (All Years)						

SUB-TOTAL (A) = _____

Pricing - Task Authorizations		
Activity 7 - Engineering Assistance for Repairs		
	Estimated time for evaluation (in hours)	Hourly Rate
Year 1 - Firm	40	
Year 2 - Firm	20	
Year 3 - Firm	10	
Option 1 Year 4 - Firm	10	
Option 2 Year 5 - Firm	10	
Option 3 Year 6 - Firm	10	

SUB-TOTAL (B) = _____

TOTAL A + B = _____ aggregate evaluated price of the bid.

ANNEX B - MANDATORY TECHNICAL CRITERIA

The contractor must provide documentation and demonstrate in the offer that their proposed bid meets each and every criteria. Failure to provide supporting documentation may result in the contractor being deemed non-responsive.

#	Mandatory Criteria	Offerors Response
		Demonstrated and identified supporting documentation (Contractor to insert data and page number)
MC1	<p>Corporate Experience — Firm must have inspected and certified a minimum five (5) mobile, tower, or railway cranes since 2014 including both visual and NDT inspection.</p> <p>Bidders must provide project information for five (5) inspections, including type and hoisting capacity of cranes inspected, type of inspection (visual, NDT, etc.), and client contact information (Canada may contact the clients to confirm the information provided).</p>	
MC2	<p>Technical Qualifications – Engineering — Firm must employ, or have under subcontract, a Professional Engineer who is licensed to practice in Ontario and who has a minimum of five (5) years' experience in the field of lifting and rigging and in certifying mobile cranes to meet CSA standards and O. Reg. 851 requirements for lifting apparatus.</p> <p>Bidders must provide the proposed engineer's résumé proving compliance with this requirement.</p> <p>In the case the Bidder will be subcontracting for this service, the Bidder must also provide a letter from the intended subcontractor indicating that if the Bidder is awarded the contract, that the proposed subcontract firm will enter a contract with the Bidder to provide the services indicated.</p>	
MC3	<p>Technical Qualifications – Inspectors — Firm must employ, or have under subcontract, crane inspectors, welding inspectors, and non-destructive testing technicians all certified as described in the SOW section 5.2.</p> <p>Bidders must submit copies of</p>	

	<p>certificates as proof. For qualifications with expiry dates, date of expiry must be not be sooner than one (1) year from the awarded contract or must provide a proof of renewal.</p> <p>In the case of subcontractors, Bidder must also provide a letter from the intended subcontractor indicating that if the Bidder is awarded the contract with Canada that the subcontract firm will enter a contract with the Bidder to provide the services indicated.</p>	
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ANNEX C - ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts any of the following Electronic Payment Instrument(s):

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

Solicitation No. - N° de l'invitation
EP168-200068/A
Client Ref. No. - N° de réf. du client
EP168-200068

Amd. No. - N° de la modif.
File No. - N° du dossier

Buyer ID - Id de l'acheteur
hs652
CCC No./N° CCC - FMS No./N° VME

TASK AUTHORIZATION FORM 572

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Task Authorization Autorisation de tâche

Instruction for completing the form PWGSC - TPSGC 572 - Task Authorization
(Use form DND 626 for contracts for the Department of National Defence)

Instruction pour compléter le formulaire PWGSC - TPSGC 572 - Autorisation de tâche
(Utiliser le formulaire DND 626 pour les contrats pour le ministère de la Défense)

Contract Number

Enter the PWGSC contract number.

Numéro du contrat

Inscrire le numéro du contrat de TPSGC.

Contractor's Name and Address

Enter the applicable information

Nom et adresse de l'entrepreneur

Inscrire les informations pertinentes

Security Requirements

Enter the applicable requirements

Exigences relatives à la sécurité

Inscrire les exigences pertinentes

Total estimated cost of Task (Applicable taxes extra)

Enter the amount

Coût total estimatif de la tâche (Taxes applicables en sus)

Inscrire le montant

For revision only

Aux fins de révision seulement

TA Revision Number

Enter the revision number to the task, if applicable.

Numéro de la révision de l'AT

Inscrire le numéro de révision de la tâche, s'il y a lieu.

Total Estimated Cost of Task (Applicable taxes extra) before the revision

Enter the amount of the task indicated in the authorized TA or, if the task was previously revised, in the last TA revision.

Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision

Inscrire le montant de la tâche indiquée dans l'AT autorisée ou, si la tâche a été révisée précédemment, dans la dernière révision de l'AT.

Increase or Decrease (Applicable taxes extra), as applicable

As applicable, enter the amount of the increase or decrease to the Total Estimated Cost of Task (Applicable taxes extra) before the revision.

Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu

S'il y a lieu, inscrire le montant de l'augmentation ou de la réduction du Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision.

1. Required Work: Complete sections A, B, C, and D, as required.

1. Travaux requis : Remplir les sections A, B, C et D, au besoin.

A. Task Description of the Work required:

Complete the following paragraphs, if applicable.
Paragraph (a) applies only if there is a revision to an authorized task.

A. Description de tâche des travaux requis :

Remplir les alinéas suivants, s'il y a lieu : L'alinéa (a) s'applique seulement s'il y a révision à une tâche autorisée.

(a) Reason for revision of TA, if applicable:
Include the reason for the revision; i.e. revised activities; delivery/completion dates; revised costs. Revisions to TAs must be in accordance with the conditions of the contract. See Supply Manual 3.35.1.50 or paragraph 6 of the Guide to Preparing and Administering Task Authorizations.

(a) Motif de la révision de l'AT, s'il y a lieu : Inclure le motif de la révision c.-à.-d., les activités révisées, les dates de livraison ou d'achèvement, les coûts révisés. Les révisions apportées aux AT doivent respecter les conditions du contrat. Voir l'article 3.35.1.50 du Guide des approvisionnements ou l'alinéa 6 du Guide sur la préparation et l'administration des autorisations de tâches.

(b) Details of the activities to be performed (include as an attachment, if applicable)

(b) Détails des activités à exécuter (joindre comme annexe, s'il y a lieu).

(c) Description of the deliverables to be submitted (include as an attachment, if applicable).

(c) Description des produits à livrer (joindre comme annexe, s'il y a lieu).

(d) Completion dates for the major activities and/or submission dates for the deliverables (include as an attachment, if applicable).

(d) Les dates d'achèvement des activités principales et (ou) les dates de livraison des produits (joindre comme annexe, s'il y a lieu).

B. Basis of Payment:

Insert the basis of payment or bases of payment that form part of the contract that are applicable to the task description of the work; e.g. firm lot price, limitation of expenditure, firm unit price

C. Cost of Task:**Insert Option 1 or 2:****Option 1:**

Total estimated cost of Task (Applicable taxes extra): Insert the applicable cost elements for the task determined in accordance with the contract basis of payment; e.g. Labour categories and rates, level of effort, Travel and living expenses, and other direct costs.

Option 2:

Total cost of Task (Applicable taxes extra): Insert the firm unit price in accordance with the contract basis of payment and the total estimated cost of the task.

D. Method of Payment

Insert the method(s) of payment determined in accordance with the contract that are applicable to the task; i.e. single payment, multiple payments, progress payments or milestone payments. For milestone payments, include a schedule of milestones.

B. Base de paiement :

Insérer la base ou les bases de paiement qui font partie du contrat qui sont applicables à la description du travail à exécuter : p. ex., prix de lot ferme, limitation des dépenses et prix unitaire ferme.

C. Coût de la tâche :**Insérer l'option 1 ou 2****Option 1 :**

Coût total estimatif de la tâche (Taxes applicables en sus) Insérer les éléments applicables du coût de la tâche établies conformément à la base de paiement du contrat. p. ex., les catégories de main d'œuvre, le niveau d'effort, les frais de déplacement et de séjour et autres coûts directs.

Option 2 :

Coût total de la tâche (Taxes applicables en sus) : Insérer le prix unitaire ferme conformément à la base de paiement du contrat et le coût estimatif de la tâche.

D. Méthode de paiement

Insérer la ou les méthode(s) de paiement établit conformément au contrat et qui sont applicable(s) à la tâche; c.-à.-d., paiement unique, paiements multiples, paiements progressifs ou paiements d'étape. Pour ces derniers, joindre un calendrier des étapes.

2. Authorization(s):

The client and/or PWGSC must authorize the task by signing the Task Authorization in accordance with the conditions of the contract. The applicable signatures and the date of the signatures is subject to the TA limits set in the contract. When the estimate of cost exceeds the client Task Authorization's limits, the task must be referred to PWGSC.

3. Contractor's Signature

The individual authorized to sign on behalf of the Contractor must sign and date the TA authorized by the client and/or PWGSC and provide the signed original and a copy as detailed in the contract.

2. Autorisation(s) :

Le client et (ou) TPSGC doivent autoriser la tâche en signant l'autorisation de tâche conformément aux conditions du contrat. Les signatures et la date des signatures appropriées sont assujetties aux limites d'autorisation de tâche établies dans le contrat. Lorsque l'estimation du coût dépasse les limites d'autorisation de tâches du client, la tâche doit être renvoyée à TPSGC.

3. Signature de l'entrepreneur

La personne autorisée à signer au nom de l'entrepreneur doit signer et dater l'AT, autorisée par le client et (ou) TPSGC et soumettre l'original signé de l'autorisation et une copie tel que décrit au contrat.



Task Authorization Autorisation de tâche

Contract Number - Numéro du contrat

Contractor's Name and Address - Nom et l'adresse de l'entrepreneur	Task Authorization (TA) No. - N° de l'autorisation de tâche (AT)
	Title of the task, if applicable - Titre de la tâche, s'il y a lieu
	Total Estimated Cost of Task (Applicable taxes extra) Coût total estimatif de la tâche (Taxes applicables en sus) \$

Security Requirements: This task includes security requirements
Exigences relatives à la sécurité : Cette tâche comprend des exigences relatives à la sécurité

☐

No - Non

☐

Yes - Oui

If YES, refer to the Security Requirements Checklist (SRCL) included in the Contract
Si OUI, voir la Liste de vérification des exigences relative à la sécurité (LVERS) dans le contrat



For Revision only - Aux fins de révision seulement

TA Revision Number, if applicable Numéro de révision de l'AT, s'il y a lieu	Total Estimated Cost of Task (Applicable taxes extra) before the revision Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision \$	Increase or Decrease (Applicable taxes extra), as applicable Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu \$
--	--	---

Start of the Work for a TA : Work cannot commence until a TA has been authorized in accordance with the conditions of the contract.

Début des travaux pour l'AT : Les travaux ne peuvent pas commencer avant que l'AT soit autorisée conformément au contrat.

1. Required Work: - Travaux requis :

A. Task Description of the Work required - Description de tâche des travaux requis	See Attached - Ci-joint <input type="checkbox"/>
B. Basis of Payment - Base de paiement	See Attached - Ci-joint <input type="checkbox"/>
C. Cost of Task - Coût de la tâche	See Attached - Ci-joint <input type="checkbox"/>
D. Method of Payment - Méthode de paiement	See Attached - Ci-joint <input type="checkbox"/>

Contract Number - Numéro du contrat

2. Authorization(s) - Autorisation(s)

By signing this TA, the authorized client and (or) the PWGSC Contracting Authority certify(ies) that the content of this TA is in accordance with the conditions of the contract.

En apposant sa signature sur l'AT, le client autorisé et (ou) l'autorité contractante de TPSGC atteste(nt) que le contenu de cette AT respecte les conditions du contrat.

The client's authorization limit is identified in the contract. When the value of a TA and its revisions is in excess of this limit, the TA must be forwarded to the PWGSC Contracting Authority for authorization.

La limite d'autorisation du client est précisée dans le contrat. Lorsque la valeur de l'AT et ses révisions dépasse cette limite, l'AT doit être transmise à l'autorité contractante de TPSGC pour autorisation.

Name and title of authorized client - Nom et titre du client autorisé à signer

Signature

Date

PWGSC Contracting Authority - Autorité contractante de TPSGC

Signature

Date

3. Contractor's Signature - Signature de l'entrepreneur

Name and title of individual authorized - to sign for the Contractor
Nom et titre de la personne autorisée à signer au nom de l'entrepreneur

Signature

Date

Solicitation No. - N° de l'invitation
EP168-200068/A
Client Ref. No. - N° de réf. du client
EP168-200068

Amd. No. - N° de la modif.
File No. - N° du dossier

Buyer ID - Id de l'acheteur
hs652
CCC No./N° CCC - FMS No./N° VME

STATEMENT OF WORK

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ANNEX “A”
STATEMENT OF WORK

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1 SCOPE SUMMARY

Canada requires a team of inspectors, under the direction of a Professional Engineer, who will undertake inspection work on the stoplog lifters (specialized cranes) at the Timiskaming Dam Complex:

2 BACKGROUND

2.1 Location

Canada owns and operates the Timiskaming Dam Complex where Lake Timiskaming discharges into the Ottawa River (see Figure 1).

The complex contains two dams, one on each side of Long Sault Island, called the Timiskaming Quebec Dam and the Timiskaming Ontario Dam respectively. Despite the name, the Quebec Dam’s west abutment and first two sluices are in Ontario; the provincial border runs through the third sluice from the west abutment. GoogleMaps shows the border on the wrong side of Long Sault Island.

For inspection, the Quebec stoplog lifter will be parked in the lay-down area on Sault Island and the Ontario stoplog lifter will be parked in the lay-down area on the right (west) bank. Therefore, all work of this contract will take place in Ontario.

2.2 Description of Stoplog Lifters

Flow control at the dams is done with squared timber stoplogs stacked in sluices to form a series of variable height weirs. The grooves in the piers or abutments that accommodate the stoplogs are called “gains.” Rail-mounted, electric-powered, hydraulic stoplog lifters place or remove the stoplogs in the gains to adjust the volume of water flowing through the dams.

Each crane receives electric power through (600 V, 60 A, 3 phase) through a supply cable connected to one of several plugs located along the dam deck. The motor is a 25 HP, 600V AC, 3 phase motor by Brook Crompton. The motor has a variable frequency drive by Schneider for soft start, phase loss protection, and voltage & amperage monitoring. The stoplog lifter also has several transformers providing 120 V AC for the controls another other electrical needs within the machine including for a number of proximity sensors needed for operation. Electrical and hydraulic schematics are attached to this Statement of Work.

The stoplog lifters have some characteristics of hydraulic telescopic-boom mobile cranes, but also many differences.

- The stoplog lifters each have a pair of telescoping hydraulic box booms tied together through semi-flexible connections to an aerofoil bar that makes them act roughly in tandem (some play between the booms is possible and necessary for stoplog handling).
- The operator works standing up; there is no seat.
- The booms can tilt or extend, but cannot swing from side-to-side in a horizontal plane.
- The booms’ tilt is limited by the geometry of the dam deck and the stoplog lifter was designed accordingly, so there is no need for a boom angle indicator.
- There is no wire rope. Rigid “harpoon”-style hooks, shaped like an upside-down T, at the end of the booms turn through a quarter-turn to engage in pockets in the end caps of each stoplog—there is no swivel or latch, as with a J-hook, and no slings.
- As well as lifting and pulling like a normal crane, the stoplog lifters push and press stoplogs down into the sluice to ensure good seating of one log against another in the stack.
- The stoplog lifters are tied to anchors in the dam deck during stoplog manipulations. This system is designed to resist overturning and uplift forces; there are no outriggers.
- The stoplog lifters are not used to manipulate anything other than the stoplogs and deck gratings for the sluices, so load charts are not required.

In summary, unlike most cranes, the stoplog lifters are very constrained as to their load and movements and hence many of the components of ordinary mobile cranes are not required and hence are not present on the stoplog lifters.

2.3 Previous Modifications

- 1) **Ontario stoplog lifter - guide pieces.**—When the Ontario Dam was rebuilt in 2016, the new dam featured narrower piers and a wider sluice opening. This necessitated modifications to the lifting booms on pre-existing Ontario stoplog lifter to accommodate the new gains configuration; guide pieces were added to the bottom end of the booms under the direction of the Damkeepers to solve problems related to getting the harpoon hooks to line up with the stoplog pockets when the booms are underwater. The booms were being buffeted by the flow, and the harpoons were not lining up with the slots in the end caps.

The guide pieces are small and unobtrusive and seem to work adequately. However, with the new gains configuration, the booms are more exposed to the flow than they had been previously; as a result, they do flex and vibrate more than was likely to have been anticipated by the original designers.

- 2) **Quebec stoplog lifter.**—The Quebec Dam’s stoplog lifter has not been modified, but is still in its as-purchased configuration.

2.4 Previous repairs

- 1) **General.**—Both stoplog lifters are now seven years old and seem to be working relatively well. They are inspected regularly by the Damkeepers (pre-operation checks) and have had one thorough inspection in 2015. A few minor breakdowns in the log contact sensors and the harpoon-turning mechanisms have been repaired as needed.
- 2) **Drive shafts.**—The drive shaft for travel along the crane rails broke and has been replaced on both stoplog lifters. The Ontario stoplog lifter’s shaft had a visible crack (see Figures 12 and 13). The Quebec stoplog lifter’s shaft, contrary to the as-built drawings, contained a weld (see Figure 14). Both broken shafts have now been replaced with new fabrications built to the same dimensions as the original.

2.5 Project Constraint – Water Control

- 1) The amount of water the dams have to pass depends on the weather and cannot be predicted ahead of time. Damkeepers may have to interrupt Contractor’s fieldwork in order to use stoplog lifters for water control operations during the course of Work.
- 2) Technical Authority will give Contractor a minimum of 4 hours’ notice (and more if possible) before water control operations are required. Contractor must be prepared to close-up inspection Work and leave the stoplog lifter and the dam deck clear of tools, equipment materials, and personnel, and in all other respects render the stoplog lifters safe and suitable for use within that period.
- 3) Contractor may continue with fieldwork after water control operations are complete: Damkeepers will provide estimated duration of water control activities at the time; it is not likely to be more than a few hours at most.

3 GOVERNING DOCUMENTS

3.1 Legal and Regulatory

Comply with the following:

- 1) CAN/CSA Z460-13 *Control of hazardous energy - Lockout and other methods*
- 2) *Occupational Health and Safety Act* (R.S.O. 1990, c. O.1)
- 3) O. Reg. 224/07 *Spill Prevention and Contingency Plans*
- 4) O. Reg. 347 *General - Waste Management*, as amended
- 5) O. Reg. 490/09 *Designated Substances*

- 6) O. Reg. 851 *Industrial Establishments*
- 7) *Workplace Hazardous Materials Information System* (WHMIS 2015)
- 8) Workplace Safety and Insurance Act, 1997, S.O. 1997, c. 16, Sched. A, R.R.O. 1990; Reg. 1101 *First Aid Requirements*

3.2 **Best Practices**

- 1) Manuals from the Original Equipment Manufacturer.
- 2) Normally cranes are to be inspected for their conformance to the standard governing them. However, stoplog lifters fall under no known code or standard. Therefore, consider as reference material the following:
 - a) CSA Z150.3 *Safety Code for Articulating Boom Cranes*
 - b) CSA Z150-16 *Safety code on mobile cranes*
 - c) ASME B30.22-2016 *Articulating Boom Cranes*
 - d) ASME B30.5-18 *Mobile and Locomotive Cranes*
- 3) In addition, the Contractor may choose to apply relevant portions of other crane standards or industry guidelines as per his professional judgement.

3.3 **Internal Documents**

- 1) Site Plan
- 2) General Arrangement – Ontario Stoplog Lifter
- 3) General Arrangement – Quebec Stoplog Lifter
- 4) Boom System drawings
- 5) Wheel System drawings
- 6) Schematics
- 7) Extracts from OEM's Operations and Maintenance Manual - checklists

4 **TECHNICAL REQUIREMENTS**

4.1 **ACTIVITY 1 – Preliminary Submittals (Year 1)**

- 1) Submit the following preliminary documentation no later than 5 working days after Award:
 - a) **Project Manager's** name and contact information (ref. Section 4.1 of this SOW)
 - b) **Schedule** (ref. Section 4.3 of this SOW)
 - c) **Health and Safety Submittals** (ref. Section 4.5 of this SOW)
- 2) Technical Authority will review and comment on submittals. Contractor must revise and resubmit. This process will continue until acceptable submittals have been made.
- 3) Contractor may not go on site until acceptable submittals have been received.

4.2 **ACTIVITY 2 – Fieldwork for First Inspection (Year 1)**

4.2.1 **Planning**

- 1) Review existing information to become generally familiar with the machine and the areas of concern.
- 2) Identify members and connections most likely to be stressed more than the original designers intended, either in static or fatigue loading.
- 3) Provide all ladders, climbing harnesses, hand and power tools, instruments, inspection materials, consumables, etc. that will be necessary to undertake the inspection.

4.2.2 Observe Operation & Interview Damkeepers

- 1) Review stoplog lifters’ history file (design information, past load tests, previous inspections, maintenance, and repairs). Review log books. This information resides with the Damkeepers on site.
- 2) Discuss with the Damkeepers the installation of the new guide pieces added to the Ontario stoplog lifter’s lifting heads, which were done in two stages, and the operational problems that led to needing the modifications.
- 3) With the Damkeepers operating the machines, conduct a function test on both stoplog lifters checking for proper operation of all pushing and pulling functions as well as the operation of safety devices and limit switches.
- 4) Observe the vibrations induced in the booms and frame of the Ontario stoplog lifter when Damkeepers are manipulating stoplogs underwater. Compare with the booms of the Quebec stoplog lifter, which is still as-designed having the booms relatively well protected within the stoplog gains.
- 5) During the demonstration, discuss with Damkeepers their observations of how the two machines behave with the booms under water.
- 6) Note that the vibration of the booms will vary with the flow rate of water, which in turn varies with the head difference between the upstream and downstream sides of the stoplogs. It is understood that the inspector will only be able to see the water conditions on the specific day at the time of testing. Based on observations and engineering judgement, the Contractor will have to estimate the maximum vibrations experienced by the boom and frame.

4.2.3 Perform Crane Inspection

- 1) Provide lockout/tagout/blockout before inspections and according to SSHAHSP.
- 2) **Structural**
 - a) **Structural members (load-bearing parts).**—Check for deformations, cracks, or corrosion on all members, but concentrating particularly carefully on those members that are affected most by the newly increased vibrations of the booms on the Ontario stoplog lifter.
 - b) **Bolted connections.**—Check for proper mating of adjoining surfaces. Check all structural bolts are in place (i.e. that none are missing). Check to see bolts are correct type and size. Check that nuts and heads of bolts are bearing properly on the surfaces against which they ought to bear and make sure that the torque values on bolts are as prescribed by the manufacturer.
 - c) **Welded connections.**—Visually and via non-destructive testing, check all connection welds for corrosion, cracks, or other defects, again concentrating particularly carefully on those members of the Ontario stoplog lifter that are affected most by the newly increased vibrations of the booms.
- 3) **Mechanical, Hydraulic, and Electrical**
 - a) Perform annual inspection of structural, hydraulic, and electrical systems from the O&M Manual (see checklist in Section 8).
 - b) Check all pins and bearings, for play, and proper installation as much as is possible with manual disassembly, remove and examine these. Re-assemble and re-install parts on the stoplog lifter after examination.
 - c) Visually assess the conditions of the tie-down shackles on the dam decks and the tie-down devices on the stoplog lifters.
 - 4) **Wheels and shafts.**—Visually assess the size and layout of the two wheel shafts for the stoplog lifters’ travel along the crane rails, and take measurements necessary for stress and fatigue analysis of these components.
 - 5) **Other.**—Make other checks to O. Reg. 851 *Industrial Establishments* as well as to reference codes, standards, and best practices that are appropriate in the judgement of the Professional Engineer responsible for the inspection.
 - 6) Leave the stoplog lifters in the same state of assembly and cleanliness as before the inspection started.

- 7) **Advise Damkeepers and Technical Authority within 2 hours via telephone (and follow-up by email within 24 hours with photos) if a deficiency is found that prevents the safe operating of the stoplog lifter.**

4.2.4 As-Found Recording

- 1) Take measurements of new guide pieces added to the Ontario machine’s booms at the lifting heads and prepare updated drawings of this portion of the stoplog lifters using standard mechanical drafting practices.
- 2) Use ASME Y14.100 *Engineering Drawing Practices* and other ASME and ANSI drafting standards. Do not use ISO standards.
- 3) Provide “assembly views” of modified lifter head, and supplement with detail, auxiliary, isometric, and/or exploded views as needed to describe fully the modifications.
- 4) Use third angle projection, standard welding symbols, and keep notes to a minimum.
- 5) Dimension in fractional inches to be compatible with original manufacturer’s drawings.
- 6) Dimension features in the view that is most appropriate. Do not repeat dimensions in different views.
- 7) Place dimensions outside the part area and between the arrows (i.e. not over the arrows).
- 8) Provide drawings in AutoCAD 2014 version, to be compatible with the version the Technical Authority has in the office.
- 9) These drawings are intended to be used in the future if repairs or modifications to the guide pieces become necessary; provide PWGSC with all intellectual property rights to enable this to take place.

4.3 ACTIVITY 3 – Structural Analysis of Ontario Stoplog Lifter (Year 1)

- 1) Note that material property information is available in the form of mill test results from the construction period: the Technical Authority can provide this information to the Contractor as needed.
- 2) Perform a stress and fatigue analysis and determine what effect the additional vibrations are having on the integrity of the Ontario Stoplog lifter.
- 3) Perform a stress and fatigue analysis of the wheels’ drive shafts to determine whether or not they are undersized.
- 4) The crane was new in 2012 and we had been expecting a 50-year service life. Determine if the useful life of the Ontario stoplog lifter will be reduced by the additional vibrations, and estimate by how much. It is understood that this cannot be precisely calculated, but if the effect of new vibration is severe, we will need to know approximate timing of crane replacement for long-term budgeting purposes. In essence, we are looking to answer the question “should we be budgeting for a new stoplog lifter in the next 10 years or less, or can we carry on with regular inspections for the time being and revisit the question in another decade or so?” The answer need not be more precise than that.

4.4 ACTIVITY 4 – Annual Inspections (Years 2, 3, and Optional Years)

Subsequent inspections after the first year will not be as extensive. The work of the subsequent inspections is as follows:

4.4.1 Planning

Provide all ladders, climbing harnesses, hand and power tools, instruments, inspection materials, etc. that will be necessary to undertake the inspection.

4.4.2 Observe Operation & Interview Damkeepers

- 1) Review stoplog lifters’ history file (design information, past load tests, previous inspections, maintenance, and repairs). Review log books. This information resides with the Damkeepers on site.
- 2) With the Damkeepers operating the machines, conduct a function test on both stoplog lifters checking for proper operation of all pushing and pulling functions as well as the operation of safety

devices and limit switches.

- 3) During the demonstration, discuss with Damkeepers their observations of how the two machines behave.

4.4.3 Perform Crane Inspection

- 1) Provide lockout/tagout/blockout before inspections and according to SSHAHSP.
- 2) **Structural**
 - a) **Structural members (load-bearing parts).**—Check for deformations, cracks, or corrosion on all members, but concentrating particularly carefully on those members that are affected most by the newly increased vibrations of the booms on the Ontario stoplog lifter.
 - b) **Bolted connections.**—Check for proper mating of adjoining surfaces. Check all structural bolts are in place (i.e. check that none are missing). Check to see bolts are correct type and size. Check that nuts and heads of bolts are bearing properly on the surfaces against which they ought to bear and make sure that the torque values on bolts are as prescribed by the manufacturer.
 - c) **Welded connections.**—Visually and via non-destructive testing, check all connection welds for corrosion, cracks, or other defects, again concentrating particularly carefully on those members of the Ontario stoplog lifter that are affected most by the newly increased vibrations of the booms.
- 3) **Mechanical, Hydraulic, and Electrical**
 - a) Perform annual inspection of structural, hydraulic, and electrical systems from the O&M Manual (see checklist in Section 8).
 - b) Check all pins and bearings, for play, and proper installation as much as is possible with manual disassembly, remove and examine these. Re-assemble and re-install parts on the stoplog lifter after examination.
 - c) Visually assess the conditions of the tie-down shackles on the dam decks and the tie-down devices on the stoplog lifters.
- 4) **Other.**—Make other checks to O. Reg. 851 *Industrial Establishments* as well as to reference codes, standards, and best practices that are appropriate in the judgement of the Professional Engineer responsible for the inspection.
- 5) Leave the stoplog lifters in the same state of assembly and cleanliness as before the inspection started.
- 6) **Advise Damkeepers and Technical Authority within 2 hours via telephone (and follow-up by email within 24 hours with photos) if a deficiency is found that prevents the safe operating of the stoplog lifter.**

4.5 ACTIVITY 5 – Report (All Years)

- 1) Upon completion of the inspection, repair, or certification, make an entry in the lifting device log book.
- 2) Provide one report describing the current condition of the structural, mechanical, and controls systems on both stoplog lifters. Contents to include:
 - a) Indicate which codes, standards, and best practices were used as targets against which the stoplog lifters were inspected and assessed.
 - b) Identify all current defects and their priority for repair along with order-of-magnitude estimates of probable cost for budgeting purposes.
 - c) YEAR 1 ONLY: Recommend which spare parts (type, number) we should keep on hand. Include items for routine maintenance that are rapidly consumed, long lead-time items, and items likely to become obsolete in the next few years.
 - d) Make recommendations for other actions we should take to ensure maximum reliability for the stoplog lifters.
 - e) YEAR 1 ONLY: Discuss calculation methods and assumptions made for all structural analyses, and provide results.

- i) Describe areas of the Ontario stoplog lifter that may be subject to premature problems in the future, given the new and increased vibration loading in and through the booms. Make recommendations for regular specific tests that Consultant believes we need to do regularly on these potential problem areas, so we can include those in Statements of Work for future inspections.
 - ii) Indicate whether or not the wheel shafts need to be redesigned to something less fatigue-sensitive, or if we just had exceptionally bad luck with two broken ones.
 - iii) Recommend additional investigations or testing, (e.g. strain gauges for deflection testing, etc.) that could help to answer any of these questions.
 - f) Illustrate the report with photographs describing defects found. Also, photograph those areas requiring future monitoring so that we have a picture of the baseline condition against which to compare future condition. Label components in the photographs so as to clearly identify which part is shown and what is the location of the defect.
- 3) Professional Engineer taking responsibility for the inspection must sign and seal the final version of the report.
 - 4) Technical Authority is bilingual, so report may be written either in English or in French, and it is not necessary to translate into the other language. It is even possible to have different chapters in different languages, e.g. the NDT inspector's report may be in French whilst the chapter on structural analysis is in English, etc.

4.6 ACTIVITY 6 – Certification (All Years)

- 1) Upon a successful inspection (which may be after repairs are completed), Professional Engineer must sign and issue a certificate that certifies that each of the stoplog lifter is capability of handling the maximum load as rated (cf. O. Reg. 851 *Industrial Establishments*, as amended, paragraph 51.)
- 2) Provide and affix inspection and certification tags on the cranes. Tags must indicate Contractor's company name and contact information, the date of inspection or certification, and all other information as required by regulations, codes, and standards.

4.7 OPTIONAL ACTIVITY 7 – Engineering Assistance for Repairs (All Years)

- 1) This Activity is “unscheduled work.”
- 2) The stoplog lifters cannot be simply “de-rated” as the load of the stoplogs will never change and the stoplog lifter has to lift them. Hence, if critical damage to a stoplog lifter's structure is detected by either visual inspection or NDT, the machine will have to be repaired or strengthened.
- 3) The scope of work of this Activity cannot be predicted or priced ahead of time. The execution of this task will depend on the results of the other tasks. A scope and price will be determined at that time and a contract amendment issued for the work of this task, which will contain its own milestones and payment schedule.
- 4) The Contractor must be prepared to offer the following services if needed, either with in-house forces or through the use of subcontractors:
 - a) Weld design and inspection
 - b) Design of steel replacement components, and inspection of fabrications in a machine shop
 - c) Specifications for hydraulic repairs, and inspections of completed repairs
 - d) Specifications for electrical and controls repairs, and inspections of completed repairs

5 ADMINISTRATIVE REQUIREMENTS

5.1 Project Manager

- 1) Appoint a Project Manager to plan, direct, control, and make decisions for the Contractor and who must be the main point of contact between the Contractor and the Technical Authority.

- 2) The Contractor is responsible for coordinating work of his sub-contractors and for supervising them when on the dam site.

5.2 Technical Qualifications

- 1) Have on staff, or provide under sub-contract, all the skills required to perform work of this contract.
- 2) The Contractor is responsible for selecting the mix of skills required to complete any given Task, keeping in mind the need to comply with statutory and regulatory requirements.
- 3) A single individual may hold more than one technical qualification.
- 4) The technical qualifications needed for the work of this contract include, at minimum, the following:
 - a) **Professional Engineer.**—The inspection is to be either performed and/or supervised by a Professional Engineer licensed to practice in Ontario. PROOF: Copy of current Ontario P. Eng. license.
 - b) **Crane Inspector.**—At the time of writing this SOW, we are not aware of any formal licensing or certification of crane inspectors in Ontario that would be applicable to the equipment in this contract. Nevertheless, we require crane inspector must be a “Competent Person,” under O. Reg. 851 *Industrial Establishments* and the *Occupational Health and Safety Act* of Ontario. PROOF: Proof of that the crane inspector is a “competent person” can be met in several ways:
 - i) United States certification as a “NCCCO *Mobile Crane Inspector*” (includes 5-year experience requirement)
 - ii) Classification society’s certification as a surveyor of shipboard cranes
 - iii) US Navy Crane Centre qualification as an inspector of shore-based cranes to NAVFAC P-307 *Management of Weight Handling Equipment*, or of shipboard cranes to *Naval Ships’ Technical Manual* NSTM S9086-T4-STM-010/CH-589.
 - iv) Résumé showing that the inspector has received classroom training in codes and standards applicable to cranes and has at least 5 years’ experience as a crane mechanic, crane technician, or crane inspector on mobile, tower, ship-board, or overhead cranes with the duty of identifying deficiencies and hazards commonly seen in the field.
 - c) **NDT Inspector.**—Must hold certification to CAN/CGSB 48.9712 *Non-Destructive Testing - Qualification and Certification of Personnel*, minimum level 2. PROOF: Copy of valid license.
 - d) **Welding Inspection**
 - i) **Inspector.**—Must be qualified CSA W1 78.2 *Certification of Welding Inspectors*, level 2 or 3. PROOF: Copy of valid license..
 - ii) **Inspection Organization.**—Firm must be certified to CSA W178.1-18 *Certification of Welding Inspection Organizations*. PROOF: Copy of valid license.

5.3 Schedule

- 1) Undertake inspection fieldwork in the summer (July to September). This is when the head difference is generally highest and hence when the boom vibrations will be most pronounced.
 - a) Confirm with the Technical Authority at minimum one week before intended inspection date. Note although it is unlikely in the summer, an inspection may need to be re-scheduled on short notice for water control reasons.
- 2) Delivery of final report must be on or before November 30 of each year.

5.4 Kickoff Meeting

- 1) A kick-off meeting will be held within 5 days of Award of Contract. The discussion must include, but not necessarily be limited to, a review of the project requirements and the Contractor’s schedule and identification of items on critical path.
- 2) Other meetings will be scheduled as needed and as mutually convenient between the Technical Authority and the Contractor.

- 3) Meetings will be held by teleconference unless otherwise agreed between the Technical Authority and the Contractor.

5.5 **Health & Safety Requirements**

5.5.1 **Responsibility**

- 1) Contractor is responsible for health and safety of own personnel and all sub-contractors whilst on site.
- 2) Provide a Supervisor on site, who is an employee of the Contractor, to be responsible for the site whenever subcontractors are working at the dam. Authorize Supervisor to stop Work when, at his discretion, it is necessary or advisable for health and safety. Contracting Authority and/or Technical Authority may also stop Work for health and safety considerations.
- 3) Provide all training and personal protective equipment required.
- 4) Immediately address health and safety non-compliance issues, whether identified by authority having jurisdiction or by Contracting Authority and/or Technical Authority.
- 5) If unforeseen or peculiar safety-related conditions arise during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Ontario and advise Contracting Authority and Technical Authority both verbally and in writing within a maximum of 4 hours.
- 6) Submit to Contracting Authority and Technical Authority copies of all reports or directions issued by Federal or Provincial health and safety inspectors, all incident and accident reports.

5.5.2 **Existing Known Site Conditions**

Currently known hazards and conditions at this site include, but are not necessarily limited to, the following:

- 1) Remote location
- 2) Exposure to weather (heat, cold, precipitation)
- 3) Climbing stoplog lifter's structure and working at heights
- 4) Work over water (open sluice) when Damkeepers are demonstrating operations
- 5) Uneven or slippery surfaces
- 6) Tripping hazards
- 7) Contact with lubricating oil and grease

5.5.3 **Health & Safety Submittals**

PWGSC requires a variety of submittals proving Contractor compliance with legislated requirements. Hence, submit the following:

- 1) **Company information** (submit this also for those subcontractors who will be working at the dam site):
 - a) **Clearance Certificate** from the Workplace Safety Insurance Board (WSIB), or proof of disability insurance coverage from private company. Re-submit with each progress payment. Must be valid at all times during contract.
 - b) **Company's Health & Safety Policy Statement** meeting the requirement of the Ontario Occupational Health and Safety Act.
 - c) **Company's Occupational Health and Safety Program** meeting the requirements of the Ontario Occupational Health and Safety Act.
- 2) **Site-Specific Hazard Assessment and Health and Safety Plan (SSHAHSP).**—Develop written SSHAHSP based on site-specific hazard assessment before starting Work on site. Implement and enforce requirements of SSHAHSP whenever work takes place at the dam site. Submit SSHAHSP for Technical Authority's review. Revise and re-submit as often as required. Technical Authority's

review of SSHAHSP should not be construed as approval and does not reduce the Contractor's overall responsibility. SSHAHSP must include the following:

- a) **Part 1 – Safety Hazard Assessment.**—Consider all operations required to effect Work of this contract and identify safety hazards and their probability. Currently known hazards include, but are not necessarily limited to, the ones listed in 5.5.2 *Existing Known Site Conditions* as well as other hazards Contractor foresees arising during Work.
- b) **Part 2 – Mitigation Measures.**—For each safety hazard identified, describe measures and controls that will be used to protect employees and subcontract personnel and for ensuring compliance with applicable laws and regulations. Include name of person(s) responsible for ensuring adherence to SSHAHSP.
- c) **Part 3 – Emergency Contacts.**—This is simply a list of names, roles, and phone numbers, and must include all sub-contractors. Include name of nearest health facility, a map showing its location and how to get to it from the dam site, and how this facility will be contacted during an emergency.
- d) **Part 4 – Contingency and Emergency Response Plan.**—Describe standard operating procedures specific to the project site to be implemented during emergencies.

6 FIGURES



Figure 1 - Location of Timiskaming Dam Complex.



Figure 2 - View of Quebec Dam as seen from Sault Island (looking east). Crane will be in lay-down area for inspection. Lay-down area is in Ontario.



Figure 3 - Ontario stoplog lifter, upstream side.



Figure 4 - Ontario Dam's operating deck, looking west from Sault Island.



Figure 5 - Ontario stoplog lifter (before modifications) manipulating a cover from the top of a sluice.



Figure 6 - Ontario stoplog lifter (after installation of guide pieces) getting ready to pick up a double-stoplog from the deck.



Figure 7 - Quebec stoplog lifter.



Figure 8 - Connection between boom and frame of stoplog lifter. Photo: Garage PEM Barrette, 2015.

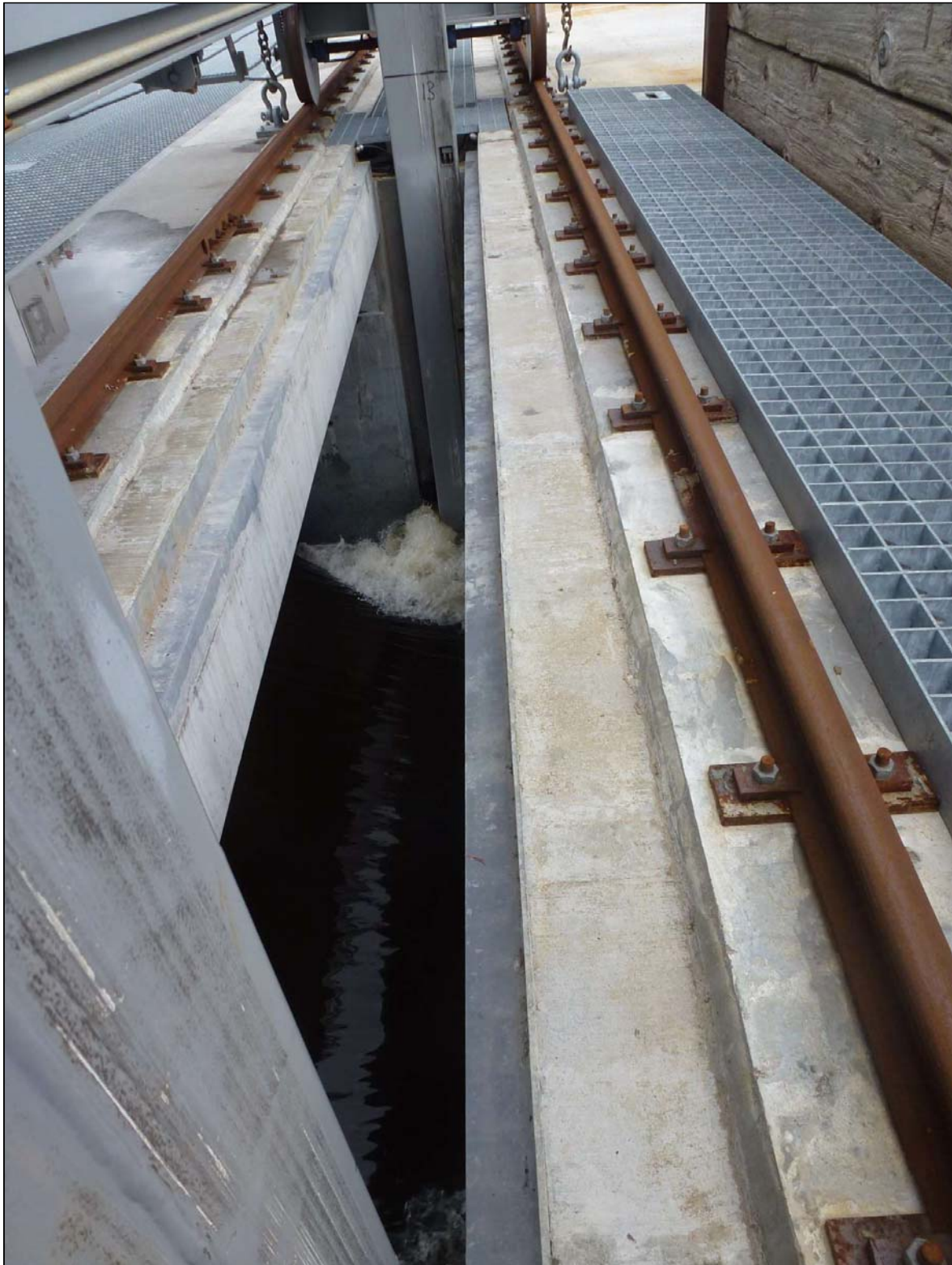


Figure 9 - Ontario machine's booms in a sluice. Note turbulence around boom in background.



Figure 10 - Boom of Ontario stoplog lifter placing stoplog in sluice. Note turbulence.



Figure 11 - Four views of end of a boom on the Ontario stoplog lifter, showing guide pieces added to accommodate the newly-widened sluices on the new Ontario dam.



Figure 12 - Drive shaft of Ontario stoplog lifter, showing approximate location of crack. The crack on the Quebec lifter's shaft was in approximately the same place.



Figure 13 - Ontario stoplog lifter's broken axle.



Figure 14 - Contrary to the as-built drawings, the Quebec shaft contained a weld. There was no visible crack, but the phased-array ultrasonic test had detected one, and this shaft was replaced with a new fabrication.