Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

solicitation-demandedesoumission@cnsc-ccsn.gc.ca

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

Proposal To: Canadian Nuclear Safety Commission

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

Proposition aux: Commission canadienne de sûreté nucléaire

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

Instructions : See Herein
Instructions: Voir aux présentes

Vendor/Firm Name and address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office – Bureau de distribution

Canadian Nuclear Safety Commission – Commission canadienne de sûreté nucléaire

Title – Sujet

Characterization of some properties of the grouts expected to be used by CNL for NPD and WR-1 ISD projects

Solicitation No. – N° de l'invitation	**Date**
5000074343C	May 13, 2024

Client Reference No. – N° référence du client

5000074343

Soliciation Closes – L'inviation prend fin	**Time Zone - Fuseau horaire**
June 3, 2024 at 11:00 a.m.	Eastern Daylight Time (EDT)

Address Inquiries to : - Adresser toutes questions à:

Daniel Tilsley
Contracting Specialist
Canadian Nuclear Safety Commission
solicitation-demandedesoumission@cnsc-ccsn.gc.ca

Destination of Services:
Destination des services :

Canadian Nuclear Safety Commission
280 Slater Street
Ottawa, ON K1P 5S9

Delivery required - Livraison exigée	**Delivered Offered – Livraison proposée**

Vendor/firm Name and address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Telephone No. – N° de téléphone

Name and title of person authorized to sign on behalf of Vendor/firm (type or print)-
Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Signature **Date**

Table of Contents

PART 1, GENERAL INFORMATION 4

1.1 Introduction 4
1.2 Security Requirements 4
1.3 Summary 4
1.4 Debriefings 5

PART 2, BIDDER INSTRUCTIONS 6

2.1 Standard Instructions, Clauses and Conditions 6
2.2 Submission of Bids 7
2.3 Enquiries - Bid Solicitation 7
2.4 Applicable Laws 7
2.5 Bid Challenge and Recourse Mechanisms 7

PART 3, BID PREPARATION INSTRUCTIONS 9

3.1 Bid Preparation Instructions 9

PART 4, EVALUATION PROCEDURES AND BASIS OF SELECTION 10

4.1 Evaluation Procedures 10
4.2 Basis of Selection – Highest Combined Rating of Technical Merit and Price 10

ATTACHMENT 1 TO PART 4, TECHNICAL CRITERIA 12

PART 5, CERTIFICATIONS AND ADDITIONAL INFORMATION 19

5.1 Certifications Required with the Bid 19
5.2 Certifications Precedent to Contract Award and Additional Information 19

PART 6, RESULTING CONTRACT CLAUSES 22

6.1 Security Requirements 22
6.2 Statement of Work 22
6.3 Standard Clauses and Conditions 22
6.4 Term of Contract 23
6.5 Authorities 23
6.6 Proactive Disclosure of Contracts with Former Public Servants 24

6.7 Payment 24
6.8 Invoicing Instructions 25
6.9 Certifications and Additional Information 25
6.10 Applicable Laws 25
6.11 Priority of Documents 25
6.12 Dispute Resolution 25

ANNEX A, STATEMENT OF WORK 27

ANNEX B, BASIS OF PAYMENT 41

ANNEX C, SECURITY REQUIREMENTS CHECK LIST 42

It is understood that the procurement of services for the Canadian Nuclear Safety Commission (CNSC) falls under the provisions of the *Nuclear Safety and Control Act, S.C. 1997, c. 9*.

PART 1, GENERAL INFORMATION

1.1 Introduction

The bid solicitation is divided into six parts plus attachment and annexes, as follows:

Part 1 General Information: provides a general description of the requirement;

Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;

Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;

Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;

Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided; and

Part 6 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Technical Criteria are included as an attachment.

The Annexes include the Statement of Work, the Basis of Payment and the Security Requirements Check List.

1.2 Security Requirements

There is no security requirement associated with the requirement.

1.3 Summary

The Innovation and Research Division (IRD) of the Canadian Nuclear Safety Commission (CNSC) requires research services from a contractor to provide a detailed report describing and presenting in details the results of the experimental program aiming to characterize some properties of the two grouts expected to be used by the Canadian Nuclear Laboratories (CNL) for the Nuclear Power Demonstration (NPD) and Whiteshell Reactor 1 (WR-1) In-Situ Disposal (ISD) projects to support CNSC staff in their assessment of the validity of the assumptions made in the safety analysis reports and, more generally, of the proposed grouts to fulfill their function in the ISD projects.

The requirement is subject to the provisions of the Canada-Honduras Free Trade Agreement, Canada-United Kingdom Trade Continuity Agreement, World Trade Organization - Agreement on Government Procurement, Canada-Chile Free Trade Agreement, Canada-Peru Free Trade Agreement, Canada-Colombia Free Trade Agreement, Canada-Panama Free Trade Agreement, Comprehensive and Progressive Agreement for Trans-Pacific Partnership, Canadian Free Trade Agreement, Canada-Ukraine Free Trade Agreement, Canada-Korea Free Trade Agreement, and Comprehensive Economic Free Trade Agreement if it is in force.

The resulting contract will not include deliveries of services and goods within locations within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirements for deliveries of services and goods within locations within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador that are subject to CLCAs will have to be treated as a separate procurement not forming part of the bid solicitation.

1.4 Debriefings

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

PART 2, BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) 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 (2023-06-08) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation. The following changes are made:

a) Replace references to “Canada” and “Public Works and Government Services Canada” (or “PWGSC”) with “Canadian Nuclear Safety Commission” (CNSC).

b) Amend subsection 4 of section 5, Submission of Bids, as follows:

Delete: 60 days
Insert: 180 days

c) Delete subsection 1a and 1b of section 12, Rejection of Bid, and replace with:

12.1.a. Bidders are advised that the CNSC reserves the right to consider, as part of its evaluation, any unsatisfactory performance in a previous or current project performed by the bidder, proposed subcontractor or individual proposed resource either on contract or under previous CNSC employment.

12.1.b. Additionally, bidders shall take note that once awarded, the performance of the contractor during and upon completion of the work shall be evaluated by the CNSC. The evaluation may include all or some of the following criteria: quality of deliverables, timeliness of completion of the work, project management, contract management, and cost. Should the contractor's performance be considered unsatisfactory, the contractor may be declared ineligible for future CNSC contracts.

d) Amend section 18, Conflict of Interest – Unfair Advantage, as follows:

18.4 The CNSC reserves the right to review real, potential or apparent conflict(s) of interest. Bidders must disclose any of their activities related to the subject of the statement of work that are licensed by the CNSC. Bidders are also required to disclose any involvement in previous, current or planned work undertaken for a CNSC licensee that is or may be related to the subject of the statement of work. Such activities or work are not in themselves grounds for rejection; however, proposals to review previous work contributed by the bidder on behalf of a CNSC licensee, and proposals to make recommendations affecting the CNSC licensing decisions in which the bidder has a financial or non financial interest may be rejected.

18.5 Bidders must address in detail, in their submitted bids, any real, potential or apparent conflict(s) of interest they may encounter while performing the work, and must substantiate which measures they are taking to prevent the conflict(s). If in doubt about a particular situation, bidders may contact the Contracting Authority before bid closing. The CNSC reserves the right to reject any bids in which a real, potential or apparent conflict of interest exists.

2.2 Submission of Bids

Bids must be submitted only to the Canadian Nuclear Safety Commission by the date, time and location indicated below:

Date: June 3, 2024
Time: 11:00 a.m. Eastern Daylight Time (EDT)
Location: solicitation-demandedesoumission@cnsc-ccsn.gc.ca

Due to the nature of this solicitation, bids submitted by facsimile or physical mail (courier, Canada Post, etc.) will not be accepted. Only bids submitted by electronic mail (email) will be accepted.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

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

2.4 Applicable Laws

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

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

2.5 Bid Challenge and Recourse Mechanisms

Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.

Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's Buy and Sell website, under the heading "Bid Challenge and Recourse Mechanisms" contains information on potential complaint bodies such as:

a) Office of the Procurement Ombudsman (OPO); and

b) Canadian International Trade Tribunal (CITT)

Suppliers should note that there are strict deadlines for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

PART 3, BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

The CNSC requests that the Bidder submit its bid by electronic mail (email). The CNSC's email system has a limit of fifteen (15) MB per individual email.

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

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications

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:

- use letter size dimensions;
- use a numbering system that corresponds to the bid solicitation;
- include a table of contents at the beginning of every section; and
- submitted in Portable Document Format (.pdf) or Microsoft Office Word (.docx).

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 and describe their approach 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 a firm all inclusive price for the work detailed in Annex A, Statement of Work.

Bidders must submit their financial bid in accordance with Part 4, Evaluation Procedures and Section 6.7. Payment of Part 6, Resulting Contract Clauses.

Section III: Certifications

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

PART 4, EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria:

a) Technical Evaluation

Point Rated Technical Criteria: Refer to Attachment 1 to Part 4, Technical Criteria. Bids which fail to obtain the required minimum number of points specified will be declared non-responsive. Each point rated technical criterion should be addressed separately.

b) Financial Evaluation

i. Bidders should complete the pricing schedule found at Annex B, Basis of Payment, and include it in its financial bid once completed. At a minimum, the Bidder must respond to the pricing schedule by including in its financial bid the quoted all-inclusive firm price per deliverable (in Cdn $) for each of the requirements identified.

ii. The Bidders financial proposal will be the sum of all-inclusive firm price deliverables (Total of Task #1, #2 and #3).

iii. The price of the financial bid will be evaluated in Canadian dollars, with Applicable taxes excluded and Customs duties included.

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

4.2 Basis of Selection – Highest Combined Rating of Technical Merit and Price

a) To be declared responsive, a bid must:

i. comply with all the requirements of the bid solicitation; and
ii. obtain the required minimum of 75 points overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 107 points.

b) Bids not meeting i. and ii. will be declared non-responsive.

c) The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.

d) To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.

e) To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.

f) For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.

g) Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

h) The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 70/30 ratio of technical merit and price, respectively. The total available points equals 100 and the lowest evaluated price is $85,000 (85).

Example: Basis of Selection - Highest Combined Rating Technical Merit (70%) and Price (30%)

		Bidder 1	**Bidder 2**	**Bidder 3**
Overall Technical Score		85/100	70/100	75/100
Bid Evaluated Price		$95,000.00	$90,000.00	$85,000.00
Calculations	**Technical Merit Score**	85/100 x 70 = 59.5	70/100 x 70 = 49	75/100 x 70 = 52.5
	Pricing Score	85/95 x 30 = 26.8	85/90 x 30 = 28.3	85/85 x 30 = 30
Combined Rating		86.3	77.3	82.5
Overall Rating		**1st**	3rd	2nd

ATTACHMENT 1 TO PART 4, TECHNICAL CRITERIA

1.0 Mandatory Criteria

Mandatory Technical Criteria	Bid Preparation Instructions	Bidder's Substantiating Information
M1. Certification The Bidder must certify that all team members, including subcontractors, have been and will remain independent of research, development, and consulting activities for the Nuclear Power Demonstration (NPD) and Whiteshell Reactor 1 (WR-1) In-Situ Disposal (ISD) projects, for the whole duration of the research project.	The Bidder must provide a signed certification.	

2.0 Point-Rated Technical Criteria

Point-Rated Criteria	Scoring	Bid Preparation Instructions
R1. Introduction The Bidder should include an introduction of the proposed work, demonstrating that they understand the objectives and scope of the experimental program described in Appendix A.	Ten (10) Points Maximum Zero (0) Points Incorrect understanding of scope and objective. Two (2) Points Verbatim from the RFP and understanding is not demonstrated. Six (6) Points Understanding of scope and objective demonstrated through examples. Ten (10) Points Understanding of scope and objective demonstrated through use of examples of past project(s).	The Bidder must provide detailed information that describes, explains, or illustrates through examples, their understanding of the proposed work by including the following elements in their response: 1) A description detailing their understanding of the objectives and scope, and 2) Examples of past projects, which are relevant to the requirement.

R2. Approach to Work The Bidder should propose an approach for conducting the work outlined in Annex A, Statement of Work.	<u>Fourteen (14) Points Maximum</u> 1. Schedule and Work Plan <u>Zero (0) Points</u> Project schedule and work plan are not provided, or the details provided do not meet the requirements outlined in the Statement of Work. <u>Four (4) Points</u> Project schedule and work plan are provided with some, but not all, of the elements (1a to 1d) required and/or the schedule and work plan do not include all the tasks and deliverables outlined in the Statement of Work, or the provided schedule seems unrealistic, or the provided schedule and work plan meet the below criteria but do not meet CNSC operational needs. <u>Eight (8) Points</u> The schedule and work plan include all the elements required and meet all the tasks and deliverables outlined in the Statement of Work. The schedule is achievable and realistic. 2. Resources <u>Zero (0) Points</u> Proposed Team members are not provided. <u>Two (2) Points</u> Proposed Team Members are identified; however, their roles are not properly defined.	The Bidder must provide the following elements in their response: 1. Schedule and work plan: a) Description of the bidder's understanding of the requirements by including a list of specific tasks and deliverables for the work, detailing the approach taken. b) Dependencies of each task and deliverable, where applicable. c) Associated start and end dates for each task and deliverable. d) A contingency for any unplanned lags or delays. 2. Resources: a) Project Lead. b) Key personnel that will carry out the tasks and their roles. 3. Risks: Response should identify risks that have the potential to impact completion of the tasks and deliverables outlined in the Statement of Work, and how these risks will be mitigated and accounted for. Examples of risks that should be included are:

	Four (4) Points Proposed Team Members are identified, and their roles are outlined, including the Project Lead and key personnel. 3. Risks Zero (0) Points Risks are not provided, or the provided risks are not relevant to the Statement of Work, or the proposed measures are deemed inappropriate or insufficient to mitigate the risks. Two (2) Points Risks are provided and are applicable to the Statement of Work, and the proposed measures for risk mitigation are deemed appropriate in mitigating the risks.	• Resources are no longer available to complete the work. • Competing priorities. • Unforeseen events/circumstances (e.g. telecommunication outages). *Submission: Project Schedule, list of the proposed team members, potential risks that may impact completion of tasks and deliverables outlined in the Statement of Work*

R3. Technical Adequacy of Assessment Methodology – Part 1 The Bidder should demonstrate the technical adequacy of their proposed methodology to assess the properties listed in the Scope of Work, in particular where no specific standard is specified (e.g., pH, calorimetry, leaching), other than for the hydraulic conductivity (see R4 below).	Ten (10) Points Maximum Zero (0) Points Response fails to assess the characteristics listed in the scope of Work; OR does not propose an assessment methodology. Five (5) Points Proposed methodology would only partially characterize the properties listed in the scope of Work; OR proposed methodology would characterize only some of the properties listed in the scope of Work. Ten (10) Points Proposed methodology would quantitatively characterize adequately the properties listed in the scope of Work.	The Bidder must provide detailed information that describes, explains, or illustrates through examples, how it intends to characterize the properties listed in the scope of Work. *Submission: Description of the proposed methodology to characterize the properties listed in the scope of Work.*
R4. Technical Adequacy of Assessment Methodology – Part 2 The Bidder should demonstrate the technical adequacy of their proposed methodology to assess the impact of cracks and cold joints on hydraulic conductivity considering the In-Situ Disposal perspective.	Forty-five (45) Points Maximum Zero (0) Points Response fails to assess the impact of crack openings or cold joints on hydraulic conductivity; OR does not propose an assessment methodology; OR assessment methodology would not allow to assess the impact of crack openings or cold joints on hydraulic conductivity. Fifteen (15) Points Proposed methodology would only partially characterize the impact of crack openings or cold joints on hydraulic conductivity; OR proposed methodology would not allow to quantitatively evaluate the impact of crack openings or cold joints on hydraulic conductivity.	The Bidder must provide detailed information that describes, explains, or illustrates through examples, how it intends to characterize the impact of crack openings and cold joints on the hydraulic conductivity of the grouts. *Submission: Description of the proposed methodology to assess the impact of cracks and cold joints on hydraulic conductivity considering the In-Situ Disposal perspective.*

	Thirty (30) Points Proposed methodology would only characterize quantitatively the impact of crack openings or of cold joints on hydraulic conductivity. Forty-five (45) Points Proposed methodology would quantitatively characterize adequately the impact of crack openings and of cold joints on hydraulic conductivity.	
R5. Advance Concrete Technology Experience The Bidder should demonstrate that at least one (1) proposed resource from the project team has experience conducting experiments in advanced concrete technology.	Eighteen (18) Points Maximum 1. Experience Zero (0) Points No project with experience in conducting experiments in advanced concrete technology. Four (4) Points Two (2) projects with experience in conducting experiments in advanced concrete technology or related areas. Eight (8) Points Four (4) projects with experience in conducting experiments in advanced concrete technology or related areas. 2. Education Zero (0) Points Response not provided.	The Bidder must provide the following elements in their response: 1. Experience The Bidder must provide project descriptions that describes, explains, or illustrates through examples, the specific tasks performed by the proposed resource that clearly demonstrate competence and compliance with the required experience related conducting experiments in advanced concrete technology. The following elements must be provided for each project description: a) Project title; b) Client/organization name (including contact name and email address); c) Start and end date; d) scope and objective of the project; e) a description of the approach and methodology developed/applied to complete the work; and f) resulting publications from the completed work.

	Two (2) Points Bachelor's Degree in civil or materials engineering or related area. Six (6) Points Master's Degree in civil or materials engineering or related area. Ten (10) Points Ph. D in civil or materials engineering or related area.	2. Education The Bidder must provide a copy of the proposed resource's relevant education certificate. *Submission: project description(s) for the proposed resource and a copy of the relevant education certification*
R6. Project Team Experience The Bidder should identify the proposed resources allocated to the project and demonstrate their education and relevant topical experience in areas such as, but not limited to, advanced concrete technology.	Ten (10) Points Maximum Zero (0) Points Team members have no topical experience, or the majority of team members have no topical experience. Five (5) Points Over 50% of team members have topical experience. Ten (10) Points All team members have topical experience.	The Bidder should describe the proposed resources for the work by including the following elements in their response: 1. Name of resources proposed, including their title and a summary of the work they would be tasked. 2. A list of projects for each proposed resource, which are relevant to the requirement, that should include dates, durations, project title, role of the resource on the project, a brief summary of the work completed, and a list of publications issued against the work performed. *Submission: Name of proposed resource(s), their title, summary of the work they would be tasked, and minimum two (2) project descriptions for each proposed resource.*
Total Available Points	**107**	
Minimum Pass Mark (70%)	**75**	

PART 5, CERTIFICATIONS AND ADDITIONAL INFORMATION

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

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

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

5.1 Certifications Required with the Bid

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

5.1.1 Integrity Provisions - Declaration of Convicted Offences

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

5.2 Certifications Precedent to Contract Award and Additional Information

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

5.2.1 Integrity Provisions – Required Documentation

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

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

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

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

5.2.3 Status and Availability of Resources

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

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

5.2.4 Education and Experience

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

5.2.5 Former Public Servant - Competitive Bid

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: 2019-01 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.

PART 6, RESULTING CONTRACT CLAUSES

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

It is understood that the procurement of services for the Canadian Nuclear Safety Commission (CNSC) falls under the provisions of the *Nuclear Safety and Control Act, S.C. 1997, c. 9.*

6.1 Security Requirements

There is no security requirement applicable to the Contract.

a) The Contractor and/or its personnel MUST NOT have access to PROTECTED and/or CLASSIFIED information or assets.

b) The Contractor and/or its personnel MUST NOT have unescorted access to Canadian Nuclear Safety Commission facilities and/or restricted access areas.

c) The Contractor must comply with the provisions of the Security Requirements Check List attached to this Contract as Annex C.

6.2 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled *To be inserted at Contract award*, dated *To be inserted at Contract award*.

6.3 Standard Clauses and Conditions

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

Wherever “Public Works and Government Services Canada” or “Canada” appears in any of the standard clauses or the general or supplemental general conditions, replace with “Canadian Nuclear Safety Commission” (or “CNSC”).

6.3.1 General Conditions

2010B (2022-12-01), General conditions: Professional services (medium complexity) apply to and form part of the Contract. The following change is made:

a) Replace section 27 with the following:

i. The contractor acknowledges that individuals who are subject to the provisions of the Conflict of Interest Act (S.C. 2006, c. 9, s. 2) the Conflict of Interest Code for Members of the House of Commons, the Values and Ethics Code for the Public Sector, the Treasury Board Policy on Conflict of Interest and Post- Employment, the CNSC Values and Ethics Code, the CNSC Conflict of Interest and Post-Employment Policy, the CNSC Directive on Reporting and Managing Financial Conflicts of Interest and/or all other codes of conduct applicable within specific federal organizations cannot derive any direct benefit resulting from the contract.

ii. Contractors, subcontractors, or any of their respective employees working full-time on CNSC premises must comply with the Values and Ethics Code for the Public Sector, the Treasury Board Policy on Conflict of Interest and Post-Employment, the CNSC Values and Ethics Code, the CNSC Conflict of Interest and Post-Employment Policy and the CNSC Directive on Reporting and Managing Financial Conflicts of Interest.

iii. Post-employment procedures apply to individuals who have left the public sector.

iv. The CNSC Values and Ethics Code, CNSC Conflict of Interest and Post-Employment Policy and the CNSC Directive on Reporting and Managing Financial Conflicts of Interest can be found at http://www.nuclearsafety.gc.ca/eng/about-us/values-and-ethics/index.cfm

6.4 Term of Contract

6.4.1 Period of the Contract

The period of the Contract is from *To be inserted at Contract award* to *To be inserted at Contract award* inclusive.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

To be inserted at Contract award

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

6.5.2 Project Authority

The Project Authority for the Contract is:

To be inserted at Contract award

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

6.5.3 Technical Authority

The Technical Authority for the Contract is:

To be inserted at Contract award

The Technical Authority named above 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.

6.5.4 Contractor's Representative

The Contractor's Representative for the Contract is:

To be inserted at Contract award

6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2019-01 of the Treasury Board Secretariat of Canada.

6.7 Payment

6.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm all inclusive price per deliverable, as specified in Annex B.

6.7.2 Multiple Payments

Canada will pay the Contractor upon completion and delivery of deliverables in accordance with the payment provisions of the Contract if:

a) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;

b) all such documents have been verified by Canada;

c) the Work delivered has been accepted by Canada.

6.7.3 T1204 - Direct Request by Customer Department

Pursuant to paragraph 221 (1)(d) of the Income Tax Act, R.S. 1985, c. 1 (5th Supp.), payments made by departments and agencies to contractors under applicable services contracts (including contracts involving a mix of goods and services) must be reported on a T1204 Government Service Contract Payments slip.

To enable departments and agencies to comply with this requirement, the Contractor must provide Canada, upon request, its business number or Social Insurance Number, as applicable. (These requests may take the form of a general call-letter to contractors, in writing or by telephone).

6.7.4 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using Direct Deposit.

6.8 Invoicing Instructions

a) Invoices can be emailed to finance@cnsc-ccsn.gc.ca.

b) The Contractor shall include the contract number and appropriate Applicable Taxes registration number on all invoices pertaining to the contract.

c) The last and final invoice under the contract shall be clearly marked “final invoice”.

6.9 Certifications and Additional Information

6.9.1 Compliance

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

6.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in *To be inserted at Contract award*.

6.11 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) 2010B (2022-12-01), General conditions: Professional services (medium complexity);
c) Annex A, Statement of Work;
d) Annex B, Basis of Payment;
e) Annex C, Security Requirements Check List
f) the Contractor's bid dated *To be inserted at Contract award*.

6.12 Dispute Resolution

a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.

b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.

c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.

d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "Dispute Resolution".

ANNEX A, STATEMENT OF WORK

1) TITLE

Characterization of some properties of the grouts expected to be used by CNL for NPD and WR-1 ISD projects

2) OBJECTIVE OF THE CONTRACT

The Innovation and Research Division (IRD) of the Canadian Nuclear Safety Commission (CNSC) requires research services from a contractor to provide a detailed report describing and presenting in details the results of the experimental program aiming to characterize some properties of the two grouts expected to be used by the Canadian Nuclear Laboratories (CNL) for the Nuclear Power Demonstration (NPD) and Whiteshell Reactor 1 (WR-1) In-Situ Disposal (ISD) projects to support CNSC staff in their assessment of the validity of the assumptions made in the safety analysis reports and, more generally, of the proposed grouts to fulfill their function in the ISD projects.

3) BACKGROUND

The CNSC is the nuclear energy and materials regulator in Canada. The mission of CNSC is to regulate the use of nuclear energy and materials to protect health, safety, security, and environment and to respect Canada's international commitments on the peaceful use of nuclear energy. Nuclear activities are carefully regulated to ensure their safe operation.

The NPD site is located in Rolphton Township, in the Town of Laurentian Hills in Renfrew County, Ontario, Canada. It is on the south bank of the Ottawa River, about 3 km downstream of the Des Joachim's Dam, approximately 25 km upstream of the Chalk River Laboratories (CRL) site, and approximately 200 km northwest of Ottawa. The NPD Nuclear Generating Station was shut down in 1987 and placed into a safe interim storage condition.

CNL has proposed an ISD for the NPD. This approach isolates the contaminated systems and components inside the below-grade structure thus creating a waste disposal facility on the NPD site. CNL proposed to fill all below-grade areas with grout. To do so, a grout batch mixing plant would need to be assembled on site, to produce the required grout. CNL plans to demolish the above-grade structures. They would be size reduced and placed into the below-grade structure as infill prior to final grouting. The ventilation stack, a current roosting structure for chimney swifts, is required to be retained. The grouted reactor system and components would then be capped with a concrete cap and covered with an engineered barrier.

CNL is also proposing an ISD approach to decommission the WR-1 reactor, a former nuclear research reactor that operated until 1985. The WR-1 reactor is located at the Whiteshell Laboratories (WL) site in Pinawa, Manitoba, approximately 100 km northeast of Winnipeg, near the towns of Lac du Bonnet and Seven Sisters. The below-grade reactor systems, components and structures would be permanently disposed of in situ. Most of the above-grade structures would be demolished and the wastes recycled or disposed of in other waste disposal facilities. Some above-grade structures would also be demolished and placed below-grade for encapsulation within the WR-1 Building. A concrete cap and engineered cover would then be constructed over the below-grade structure to protect the structure from water.

For both the NPD ISD and WR-1 ISD projects, the grout is credited with minimal importance to ensuring long term safety. Containment of the waste is primarily provided by the corrosion resistant waste form. Nonetheless, the grout, as a new feature of the facility will interact with the waste, and significantly impact the degree and speed of water ingress into the facility and the resulting transport of radionuclides entering the surrounding environment.

For NPD, CNL has stated that the grout is not considered an engineered barrier that is important to ensure long-term safety from a receptor dose perspective. Nonetheless, CNL states that the grout will perform several safety functions. Specifically, the grout inhibits groundwater movement and creates an alkaline environment that limits the solubility of key contaminants. Furthermore, the grouted monolith is a key structure in post-closure to limit human intrusion and ensure isolation of radioactive waste.

For WR-1, CNL has stated that the grout will enhance long-term safety in two ways. 1) it slows down the process which will corrode the system components, extending their lifetime as the initial barrier to containment, and 2) it slows the movement of contamination outside of the system components, as well as contamination from the degraded system components.

The two different grout mix-designs that CNL intends to use are uncommon (binder consisting of a mix of 10% of Ordinary Portland Cement (OPC) + 90% of Ground Granulated Blast Furnace Slag (GGBFS) for NPD, and 23% OPC + 77% of Fly Ash (FA) for WR-1). Properties and behavior of such special grouts are overall unknown. In addition to having requested CNL to perform some characterization of the proposed mix-designs, CNSC would benefit in performing some additional characterization following a twofold objective of confirming CNL results and ensuring that the assumptions made in the safety analyses are valid. The purpose of the experiments is to assess the behavior of both grouts with time and possible degradation mechanisms. In particular, the early-age behavior of the grout is paramount, with expected very low tensile strengths. The (relatively) long-term behavior of the grouts will be assessed as well through a characterization of its shrinkage and of its hydraulic conductivity at different ages and under different crack opening conditions. In addition, CNL has proposed modifications to the NPD grout and the thus modified grout mix-design will be cast and submitted to a series of tests as well.

As a result, the properties and behavior of the grouts must be well understood and their performance and ability to enhance long term safety must be verified by the CNSC.

4) SCOPE OF WORK

The mix-designs are detailed in Table 1. It is to be noted that the total volume of the mix-designs as detailed below may be different than 1 m^3. However, these are the mix-designs as proposed by CNL and the overall proportions must be respected. Before the launch of the research project, the CNSC might slightly modify the mix-designs detailed in Table 1, based on updated information provided by CNL.

The mix-designs proposed by CNL might not be satisfactory in terms of homogeneity and stability. Therefore, should the mixes show issues related to heterogeneity, segregation, bleeding, etc. while being produced, the contractor must ensure that the High Range Water Reducer (HRWR) and the Viscosity-Modifying Admixture (VMA) will be used adequately to adjust the fresh state properties accordingly, as required. Such adjustments must be recorded and reported in the deliverables as detailed in Section 6. Only these materials (HRWR and VMA) must be used for adjustments purposes. As much as reasonably possible, the raw materials should be the same (same source, same supplier).

Table 1: Mix-designs proposed by CNL

Component (kg/m^3)	NPD grout	NPD modified grout	WR-1 grout
OPC Type GU – CSA A3000-18	-	-	89

Mix Lafarge TerraFlow 5228 (10% OPC / 90% GGBFS) – ASTM C595	386	386	-
Fly Ash Class F – CSA A3000-18	-	-	297
Water – CSA A23.1-19	350.5	266.9	TBC*
Sand (quartz) – CSA A23.1-19	1364	1364	TBC*
Polycarboxylate HRWR Sika ViscoCrete 2100 CSA A23.1-19 / ASTM C494	4.681	1.859	TBC*
Diutan gum based VMA Kelco-Crete DG CSA A23.1-19 / ASTM C494	0.299	0.301	TBC*

*To Be Confirmed

The Contractor must produce the three grouts and perform an experimental program as described below, and assess the test results, to characterize the properties of the two grouts CNL intend to use. The contractor must define and propose a methodology for performing the tests and assessing the results when no specific test method is listed below. For tests where a standardized methodology is listed, the contractor must specify what modifications, if any, they propose to make to the methodology, and how these would yield equivalent technical results to the standardized methodology. An example of an acceptable modification may be to perform the indirect tensile test (splitting Brazilian test) on specimens of a diameter of 100 mm instead of 150 mm. In the case of the calorimetry testing, the contractor may propose performing a semi-adiabatic test instead of the fully adiabatic test, and further analyzing the results to obtain the mix characteristics under equivalent adiabatic conditions (e.g., modelling strategy combining the Arrhenius law and the model proposed by Freiesleben Hansen and Pedersen). The experimental program shall be performed as detailed in Table 2 below.

Table 2: Experimental program to characterize some properties of CNL mixes

Test	NPD grout	NPD modified grout	WR-1 grout
Slump-flow (CSA A23.2-19C - To be performed twice, once with the cone in its upright position, including T50 measurement and VSI, once with the cone in the inverted position for being used for comparison purposes with J-Ring test result)	P	P	P

J-Ring (CSA A23.2-20C)	P	P	P
Air content (CSA A23.2-4C (preferred) or CSA A23.2-7C)	P	P	P
Temperature (CSA A23.2-17C)	P	P	P
Density (CSA A23.2-6C)	P	P	P
Bleeding (CSA A23.2-1B)	P	P	P
Static Segregation Using Column Technique (ASTM C1610-21)	P One additional test will be performed with 160 µm-sieves instead of the 4.75 mm-sieves.	P One additional test will be performed with 160 µm-sieves instead of the 4.75 mm-sieves.	P One additional test will be performed with 160 µm-sieves instead of the 4.75 mm-sieves.
Setting time (ASTM C403)	P	N/A	P
pH (to be determined by the contractor) on hardened grout, at 56 days of age or more	P	N/A	P
Unconfined compressive strength (CSA A23.2-9C)	• Specimens cured at T=10°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders • Specimens cured at T=23°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders • Specimens cured at T=23°C (RH=100%): 3 days, 28 days,	• Specimens cured at T=10°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders	• Specimens cured at T=23°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders • Specimens cured at T=23°C (RH=100%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per

	6 months / 3 cylinders per term = 9 cylinders		term = 12 cylinders
Tensile strength (splitting Brazilian test) (CSA A23.2-13C)	• Specimens cured at T=10°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders • Specimens cured at T=23°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders • Specimens cured at T=23°C (RH=100%): 3 days, 28 days, 6 months / 3 cylinders per term = 9 cylinders	N/A	• Specimens cured at T=23°C (RH=50%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders • Specimens cured at T=23°C (RH=100%): 3 days, 7 days, 28 days, 6 months / 3 cylinders per term = 12 cylinders
Young Modulus (ASTM C469/C469M-22)	• Specimens cured at T=10°C (RH=50%) / 28 days / 3 cylinders per term = 3 cylinders • Specimens cured at T=23°C (RH=50%) / 28 days / 3 cylinders per term = 3 cylinders	N/A	P Specimens cured at T=23°C (RH=50%) / 28 days / 3 cylinders per term = 3 cylinders
Density, Absorption and Voids in Hardened Grout (CSA A23.2-11C)	P 3 specimens	N/A	P 3 specimens

Hydraulic conductivity (to be determined by the contractor)	P • Specimens cured at T=10°C (RH=50%): 28 days, 6 months, 28 days on samples mechanically damaged (through splitting test for example, up to 2 different percentages of the tensile strength determined above), 6 months on sample mechanically damaged (through splitting test for example, up to 2 different percentages of the tensile strength determined above) / 2 samples per term = 12 samples • Specimens cured at T=23°C (RH=100%) / 28 days / 2 samples • Specimens to characterize the impact of cold joints on the hydraulic conductivity (experimental details to be determined by the contractor) – 2 samples	N/A	P • Specimens cured at T=23°C (RH=TBD%) / 28 days, 6 months, 28 days on samples mechanically damaged (through splitting test for example, up to 2 different percentages of the tensile strength determined above), 6 months on sample mechanically damaged (through splitting test for example, up to 2 different percentages of the tensile strength determined above) / 2 samples per term = 12 sample • Specimens to characterize the impact of cold joints on the hydraulic conductivity (experimental details to be determined by the contractor) – 2 samples

Shrinkage (CSA A23.2-21C) The tests will be performed with the following modifications to CSA A23.2-21C. • An embedded PMFL-50T strain gauge (50 mm length, uncertainty of ±7 µm/m) – or similar – will be fixed longitudinally in the center of the specimen. The gauge will be connected to an acquisition system able to get a measurement (at least) every 10 minutes for the first 7 days (starting as soon as the concrete is being poured), then every hour for the next 21 days, and every 2 hours for the next 5 months. • The measurements will be started as soon as the specimens are cast • The base for total shrinkage calculation will be the measure taken immediately after the specimens are cast (modification to Clause 10.3.3 of CSA A23.2-21C)	P • Two additional specimens will be cured at T=10°C (RH=50%) immediately after casting and will be kept in these conditions for the whole duration of the test • Specimens to characterize the impact of restrained shrinkage on the cracking potential of the grout (experimental details to be determined by the contractor) – 2 samples expected (might be modified depending on the contractor's proposition)	P Two additional specimens will be cured at T=10°C (RH=50%) immediately after casting and will be kept in these conditions for the whole duration of the test	P Two additional specimens will be cured at T=23°C (RH=50%) immediately after casting and will be kept in these conditions for the whole duration of the test

• Two specimens will be cured as per the requirements from CSA A23.2-21C • Two additional specimens will be cured as per the requirements from CSA A23.2-21C but without the submerging requirements from Clause 10.3 • Ambient temperature and relative humidity measurements will be recorded simultaneously to shrinkage measurements and will be part of the report • The measurements will be continued until the grout reaches 6 months of age			

Calorimetry test (to be determined by the contractor). The methodology aims to characterize the adiabatic thermal behavior of the mix, including the adiabatic temperature rise. Also, an embedded PMFL-50T strain gauge – or similar – will be fixed longitudinally in the center of the specimen to provide insightful information to estimate, alongside shrinkage measurements, the Coefficient of Thermal Expansion (CTE).	P	P	P
Leaching (to be determined by the contractor). The test will be performed to characterize the leaching properties, including the leaching rate, of the grouts.	P	P	P

P= Performed

In addition, a block will be prepared and cast with one of the grouts (to be defined) with various inserts such as pipes, etc. to simulate and assess the ability of the grout to fill the whole volume, including around and inside hollowed inserts. The desired dimensions of the block should be of 1 m x 1 m x 1 m, but the Contractor may propose alternate dimensions. stddCNSC staff will not accept a block smaller than 0.7 m x 0.7 m x 0.7 m. In addition, to evaluate the filling capacity of one of the grouts, another objective of pouring the block is to evaluate how the grouting of the ISD projects might be affected by logistics and operational needs (e.g., delamination due to cold joints). Therefore, preparing the whole block in a single cast operation is not desirable. There are no particular specifications for the inserts within the block. The Contractor should consider including hollowed horizontal and vertical pipes of various dimensions (e.g., between 2 cm to 20 cm diameter), old utility pumps with or without trash screens, construction debris, etc. Further, the homogeneity of the grout cast within the block, along with the ability of the grout to fill the whole volume, including around and inside inserts, should be evaluated by cross-section cuts (longitudinal and transversal) of the block.

TASKS

The Contractor must perform, but is not limited to, the following tasks:

- Participate in a Start-up Meeting with the Project Authority, Technical Authority and other stakeholders as required. This meeting must be held to discuss and clarify the proposed approach and methodology, test plan and schedule to ensure achievement of the objectives. The Contractor must provide a presentation with the above purpose in mind.

- Provide a completed Test Plan, which must include information about the approach and methodology that will be used for the research, and the timelines for the tasks and deliverables. The test plan must promote clear communication to help ensure the effective and timely delivery of each project component. This includes:

    - Define and propose a methodology for performing the tests and assessing the results when no specific test method is listed.
    - Define and propose a methodology for assessing the ability of one of the grouts to fill a block of 1 m x 1 m x 1 m, including around and inside hollowed inserts.

- Participate in Progress Meetings with the Project Authority, Technical Authority and other stakeholders as required. This meeting must be held to assess the degree to which the agreed project objectives are being achieved as planned and to facilitate timely adjustments (if necessary) to ensure the project success. Prior to progress meetings the Contractor is to provide a summary of the status of the project, test results and any issues for discussion.

- Perform the experimental program as aforementioned in the scope of work. This includes procurement of raw materials for production of the three grouts, in a sufficient quantity, and producing the three grouts at their facility.

- Provide monthly Status Reports which must include a summary description of the following items:

    - the work completed since the last report;
    - the work planned to be performed during the next reporting period;
    - the identification of any potential problems and proposed course of action; and
    - an update on project schedule and when delayed, propose a new deliverable schedule.

- Submit a Draft Report that supports the project objective and reports on all tasks. This report must be fully complete for review and comments by the Project Authority. The Contractor must communicate with the Project Authority to discuss the draft project report. This includes performing data treatment and analysis as required, assessing the test results obtained from the experimental program, and comparing them to results that would be expected based on the literature.

- Submit the Final Report that supports the project objective and reports on all tasks, and must include all revisions based on the draft review and comments. The Final Report must be delivered to the Project Authority for review and acceptance.

- Submit an Abstract that must provide a stand-alone statement that conveys the essential information of the Final Report. The Abstract must be between 300 and 500 words.

5) DELIVERABLES and ASSOCIATED SCHEDULE

The Contractor must submit the following Deliverables according to the schedule below:

Deliverable	Date	Delivery Location	Description
Start-up Meeting	Within two (2) weeks of contract award	Tele/videoconference	To discuss and clarify the proposed approach, test plan and schedule to ensure achievement of the objectives. The Contractor must provide a presentation with the above purpose in mind.
Task #1: Test Plan	Withing four (4) weeks of contract award	Electronic Delivery	The Contractor shall submit the test plan to the CNSC for approval. The test plan shall include invitation for CNSC staff to attend tests including but not limited to pours, fresh state tests, hydraulic conductivity tests on mechanically damaged specimens and pouring of the 1m x 1m x1m block.
Progress Meetings	Weekly/Bi-weekly	Tele/videoconference	Progress meetings will be followed by email correspondence summarizing the current status of the project activities and agreements made during the meetings.
Status Reports	Monthly	Electronic Delivery	The status reports are to be submitted on the last working day of each month following initiation of the experimental program to the Project Authority.

Task #2: Draft Report	Within nine (9) months of contract award	Electronic Delivery	A draft copy of the final report must be delivered to the Project Authority for review and comments.
Task #3: Final Report and Abstract	Within ten (10) months of contract award	Electronic Delivery	A final copy of the report, including revisions completed based on the draft review and comments, must be delivered to the Project Authority for review and approval. The Abstract must provide a stand-alone statement that conveys the essential information of the Final Report.

6) FORMAT OF DELIVERABLES

The Contractor must provide all deliverables in the following formats:

- Electronically (by email);
- using font Times New Roman 12 point;
- using Microsoft Office 2010 or later (e.g. Word, Project, PowerPoint, Excel, Visio);
- using Portable Document Format (PDF).

Any electronic files that cannot be read or require major formatting changes when opened are considered unacceptable and will be returned to the Contractor for correction at their expense.

The CNSC reserves the right, at its own discretion, to have the final report printed under CNSC cover, and to distribute it publicly. CNSC publication number(s) will be provided by the CNSC.

7) CLIENT SUPPORT

The CNSC will support the Contractor as follows:

a) Review and provide ongoing feedback regarding document content and design, as required;

b) Provide the names of the technical team members and subject matter experts who will be available for consultation and meetings; and

c) Coordinate meetings between the Contractor and CNSC, as required.

8) CONSTRAINTS

The following disclaimer will be included in every report:

- The CNSC is not responsible for the accuracy of the statements made or opinions expressed in this publication and does not assume liability with respect to any damage or loss incurred as a result of the use made of the information contained in this publication.

9) GOVERNMENT FURNISHED EQUIPMENT/INFORMATION

It is not the responsibility of the CNSC to provide a cellular phone, home office equipment, internet or other peripherals to the Contractor.

10) LANGUAGE OF WORK

The work should be conducted in English. All deliverables must be submitted in English. The CNSC will be responsible for the translation of the deliverables if required.

The Contractor's resource(s) must be able to communicate in English as follows:

Spoken

Able to use the language fluently and accurately on all levels normally pertinent to professional needs. Language usage and ability to function are fully successful. Can tailor language to audience and discuss in depth highly abstract or unfamiliar topics. Able to speak with a great deal of fluency, grammatical accuracy, complex vocabulary and in an idiomatic fashion.

Reading

Able to read fluently and accurately all styles and forms of the language in any subject as well as those pertinent to professional needs. Can follow unpredictable turns of thought readily in editorial, conjectural, and literary texts, as well as in materials in own special field, including official documents and correspondence.

Writing

Able to write the language precisely and accurately in a variety of prose pertinent to professional needs. Errors of grammar, syntax, punctuation and vocabulary are rare. Writing is consistently and explicitly organized with appropriate connectors and discourse devices (ellipsis, parallelisms, subordinates).

11) APPLICABLE DOCUMENTS

The CNSC will provide the Contractor with the following information:

- Grout mix-designs;
- Specifications related to raw materials to be used in the production of the grouts

12) TRAVEL REQUIREMENTS

There is no travel requirement associated with the work.

13) LOCATION OF WORK

It is anticipated that the work will be completed at the Contractor's premises. Consultation with team members and subject matter experts, presentations, and any other meetings will be held by tele/videoconference (e.g., Microsoft Teams, Zoom).

ANNEX B, BASIS OF PAYMENT

1.0 Basis of Payment - Firm Price - Services

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price of $ *To be inserted at Contract award*, as per the payment schedule identified below in Section 2. Customs duties are included and Applicable Taxes are extra.

2.0 Payment Schedule

During the period of the Contract, for Work performed in accordance with the Contract, the Contractor will be paid as specified below:

Deliverable	Firm Price
Task #1 – Test Plan (20% of contract value)	$ *To be inserted at Contract award*
Task #2 – Draft Report (30% of contract value)	$ *To be inserted at Contract award*
Task #3 – Final Report & Abstract (50% of contract value)	$ *To be inserted at Contract award*
Total (Sum of Task #1, #2 and #3)	$ *To be inserted at Contract award*

3.0 Limitation of Price

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

4.0 Travel and Living Expenses

a) Travel and living expenses will not be reimbursed under the Contract.

b) Canada will not accept any travel and living expenses incurred by the Contractor as a consequence of any relocation required to satisfy the terms of the Contract.

c) All travel within the National Capital Region will be at the Contractor's expense.

ANNEX C, SECURITY REQUIREMENTS CHECK LIST

Government of Canada | Gouvernement du Canada

Contract Number / Numéro du contrat
5000074343
Security Classification / Classification de sécurité UNCLASSIFIED

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

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine: **Canadian Nuclear Safety Commission**	2. Branch or Directorate / Direction générale ou Direction: Innovation and Research Division
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant

4. Brief Description of Work / Brève description du travail
Characterisation of some properties of the grouts expected to be used by CNL for NPD and WR-1 ISD projects.

5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	☑ No Non	☐ Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?	☑ No Non	☐ Yes Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)	☑ No Non	☐ Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.	☑ No Non	☐ Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?	☑ No Non	☐ Yes Oui

7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès

Canada ☑	NATO / OTAN ☐	Foreign / Étranger ☐

7. b) Release restrictions / Restrictions relatives à la diffusion

Canada	NATO / OTAN	Foreign / Étranger
No release restrictions / Aucune restriction relative à la diffusion ☑	All NATO countries / Tous les pays de l'OTAN ☐	No release restrictions / Aucune restriction relative à la diffusion ☐
Not releasable / À ne pas diffuser ☐		
Restricted to: / Limité à : ☐	Restricted to: / Limité à : ☐	Restricted to: / Limité à : ☐
Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :

7. c) Level of information / Niveau d'information

Canada		NATO / OTAN		Foreign / Étranger	
PROTECTED A / PROTÉGÉ A	☐	NATO UNCLASSIFIED / NATO NON CLASSIFIÉ	☐	PROTECTED A / PROTÉGÉ A	☐
PROTECTED B / PROTÉGÉ B	☐	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	☐	PROTECTED B / PROTÉGÉ B	☐
PROTECTED C / PROTÉGÉ C	☐	NATO CONFIDENTIAL / NATO CONFIDENTIEL	☐	PROTECTED C / PROTÉGÉ C	☐
CONFIDENTIAL / CONFIDENTIEL	☐	NATO SECRET / NATO SECRET	☐	CONFIDENTIAL / CONFIDENTIEL	☐
SECRET / SECRET	☐	COSMIC TOP SECRET / COSMIC TRÈS SECRET	☐	SECRET / SECRET	☐
TOP SECRET / TRÈS SECRET	☐			TOP SECRET / TRÈS SECRET	☐
TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT)	☐			TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT)	☐

TBS/SCT 350-103(2004/12)

Security Classification / Classification de sécurité
UNCLASSIFIED

Canada

Government of Canada | Gouvernement du Canada

Contract Number / Numéro du contrat
5000074343
Security Classification / Classification de sécurité
UNCLASSIFIED

PART A *(continued)* / PARTIE A *(suite)*

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

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

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

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

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

☐ RELIABILITY STATUS / COTE DE FIABILITÉ	☐ CONFIDENTIAL / CONFIDENTIEL	☐ SECRET / SECRET	☐ TOP SECRET / TRÈS SECRET
☐ TOP SECRET– SIGINT / TRÈS SECRET – SIGINT	☐ NATO CONFIDENTIAL / NATO CONFIDENTIEL	☐ NATO SECRET / NATO SECRET	☐ COSMIC TOP SECRET / COSMIC TRÈS SECRET
☐ SITE ACCESS / ACCÈS AUX EMPLACEMENTS			

Special comments:
Commentaires spéciaux :

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

10. b) May unscreened personnel be used for portions of the work? — ☐ No / Non ☑ Yes / Oui
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?
If Yes, will unscreened personnel be escorted? — ☐ No / Non ☑ Yes / Oui
Dans l'affirmative, le personnel en question sera-t-il escorté?

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

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

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

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

PRODUCTION

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

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

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

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

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

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

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

SUMMARY CHART / TABLEAU RÉCAPITULATIF

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

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☑ No / Non ☐ Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifier le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☑ No / Non ☐ Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).
Dans l'affirmative, classifier le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

Government of Canada | Gouvernement du Canada

Contract Number / Numéro du contrat
5000074343
Security Classification / Classification de sécurité
UNCLASSIFIED

PART D - AUTHORIZATION / PARTIE D - AUTORISATION

13. Organization Project Authority / Chargé de projet de l'organisme

Name (print) - Nom (en lettres moulées)	Title - Titre	Signature	
Telephone No. - N° de téléphone	**Facsimile No. - N° de télécopieur**	**E-mail address - Adresse courriel**	**Date**

14. Organization Security Authority / Responsable de la sécurité de l'organisme

Name (print) - Nom (en lettres moulées)	Title - Titre	Signature	
Telephone No. - N° de téléphone	**Facsimile No. - N° de télécopieur**	**E-mail address - Adresse courriel**	**Date**

15. Are there additional instructions (e.g. Security Guide, Security Classification Guide) attached?
Des instructions supplémentaires (p. ex. Guide de sécurité, Guide de classification de la sécurité) sont-elles jointes? ☐ No Non ☐ Yes Oui

16. Procurement Officer / Agent d'approvisionnement

Name (print) - Nom (en lettres moulées)	Title - Titre	Signature	
Telephone No. - N° de téléphone	**Facsimile No. - N° de télécopieur**	**E-mail address - Adresse courriel**	**Date**

17. Contracting Security Authority / Autorité contractante en matière de sécurité

Name (print) - Nom (en lettres moulées)	Title - Titre	Signature	
Telephone No. - N° de téléphone	**Facsimile No. - N° de télécopieur**	**E-mail address - Adresse courriel**	**Date**