



**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Bid Receiving PWGSC/TPSGC reception des  
soumissions  
Victory Building/Édifice Victory  
Room 310/pièce 310  
269 Main Street/269 rue Main  
Winnipeg  
Manitoba  
R3C 1B3  
Bid Fax: (204) 983-0338

**REQUEST FOR PROPOSAL**  
**DEMANDE DE PROPOSITION**

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

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

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

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

**Comments - Commentaires**

<b>Title - Sujet</b> Medical Isotopes	
<b>Solicitation No. - N° de l'invitation</b> W7702-206228/A	<b>Date</b> 2020-03-23
<b>Client Reference No. - N° de référence du client</b> W7702-206228	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$WPG-080-11008	
<b>File No. - N° de dossier</b> WPG-9-42210 (080)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2020-05-05</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Central Daylight Saving Time CDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Almonte, Cathleen	<b>Buyer Id - Id de l'acheteur</b> wpg080
<b>Telephone No. - N° de téléphone</b> (204) 229-3862 ( )	<b>FAX No. - N° de FAX</b> (204) 983-7796
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE BLDG 560 RECEIVING 560 MOUNT SORRELL ROAD RALSTON ALBERTA T0J2N0 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Public Works and Government Services Canada - Western  
Region  
Victory Building/Édifice Victory  
Room 310/pièce 310  
269 Main Street/269 rue Main  
Winnipeg  
Manitoba  
R3C 1B3

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

## TABLE OF CONTENTS

<b>PART 1 - GENERAL INFORMATION .....</b>	<b>3</b>
1.1 INTRODUCTION .....	3
1.2 SUMMARY .....	3
1.3 DEBRIEFINGS .....	4
1.4 ANTICIPATED MIGRATION TO AN E-PROCUREMENT SOLUTION (EPS).....	4
<b>PART 2 - OFFEROR INSTRUCTIONS .....</b>	<b>4</b>
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS.....	4
2.2 SUBMISSION OF OFFERS .....	4
2.3 ENQUIRIES - REQUEST FOR STANDING OFFERS.....	5
2.4 APPLICABLE LAWS.....	5
<b>PART 3 - OFFER PREPARATION INSTRUCTIONS.....</b>	<b>5</b>
3.1 OFFER PREPARATION INSTRUCTIONS.....	5
<b>PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION .....</b>	<b>6</b>
4.1 EVALUATION PROCEDURES .....	6
4.2 BASIS OF SELECTION.....	7
<b>PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION .....</b>	<b>7</b>
5.1 CERTIFICATIONS REQUIRED WITH THE OFFER.....	7
5.2 CERTIFICATIONS PRECEDENT TO THE ISSUANCE OF A STANDING OFFER AND ADDITIONAL INFORMATION.....	7
<b>PART 6 - STANDING OFFER AND RESULTING CONTRACT CLAUSES .....</b>	<b>8</b>
<b>A. STANDING OFFER.....</b>	<b>8</b>
6.1 OFFER .....	8
6.2 SECURITY REQUIREMENTS .....	8
6.3 STANDARD CLAUSES AND CONDITIONS.....	8
6.4 TERM OF STANDING OFFER.....	9
6.5 AUTHORITIES .....	9
6.6 IDENTIFIED USERS .....	10
6.7 CALL-UP INSTRUMENT .....	10
6.8 LIMITATION OF CALL-UPS.....	10
6.9 FINANCIAL LIMITATION - TOTAL.....	10
6.10 PRIORITY OF DOCUMENTS.....	10
6.11 CERTIFICATIONS AND ADDITIONAL INFORMATION .....	11
6.12 APPLICABLE LAWS.....	11
6.13 TRANSITION TO AN E-PROCUREMENT SOLUTION (EPS).....	11
<b>B. RESULTING CONTRACT CLAUSES .....</b>	<b>11</b>
6.1 REQUIREMENT .....	11
6.2 STANDARD CLAUSES AND CONDITIONS.....	11
6.3 TERM OF CONTRACT .....	12
6.4 PAYMENT .....	12
6.5 INVOICING INSTRUCTIONS .....	12
6.6 INSURANCE .....	13
6.7 SACC MANUAL CLAUSES .....	13
<b>ANNEX A .....</b>	<b>14</b>
STATEMENT OF REQUIREMENT .....	14

Solicitation No. - N° de l'invitation  
W7702-206228/A  
Client Ref. No. - N° de réf. du client  
W7702-206228

Amd. No. - N° de la modif.  
File No. - N° du dossier  
W7702-206228

Buyer ID - Id de l'acheteur  
wpg080  
CCC No./N° CCC - FMS No./N° VME

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<b>ANNEX B</b> .....	<b>17</b>
BASIS OF PAYMENT .....	17
<b>ANNEX C</b> .....	<b>20</b>
STANDING OFFER USAGE REPORT .....	20
<b>ANNEX D</b> .....	<b>21</b>
<b>TO PART 3 OF THE REQUEST FOR STANDING OFFERS</b> .....	<b>21</b>
ELECTRONIC PAYMENT INSTRUMENTS .....	21

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## RISO – MEDICAL ISOTOPES

### PART 1 - GENERAL INFORMATION

#### 1.1 Introduction

The Request for Standing Offers (RFSO) is divided into seven parts plus attachments and annexes, as follows:

- Part 1            General Information: provides a general description of the requirement;
- Part 2            Offeror Instructions: provides the instructions applicable to the clauses and conditions of the RFSO;
- Part 3            Offer Preparation Instructions: provides offerors with instructions on how to prepare their offer to address the evaluation criteria specified;
- Part 4            Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria which must be addressed in the offer, and the basis of selection;
- Part 5            Certifications and Additional Information: includes the certifications and additional information to be provided; and
- Part 6            6A, Standing Offer, and 6B, Resulting Contract Clauses:
  - 6A, includes the Standing Offer containing the offer from the Offeror and the applicable clauses and conditions;
  - 6B, includes the clauses and conditions which will apply to any contract resulting from a call-up made pursuant to the Standing Offer.

The Annexes include the Statement of Work Requirement, the Basis of Payment, the Electronic Payment Instruments, and any other annexes

#### 1.2 Summary

- 1.2.1 A Regional Individual Standing Offer (RISO) for the supply and delivery of medical radioisotopes required for training by Department of National Defence, Defence Research and Development Canada, Suffield, Alberta. The period of the Standing Offer Agreement (SOA) is from date of award to 31 March 2025 inclusive. Work shall be completed in accordance with the Requirement and terms and conditions specified herein.
- 1.2.2 This RFSO allows offerors to use the epost Connect service provided by Canada Post Corporation to transmit their offers electronically. Offerors must refer to Part 2 of the RFSO entitled Offeror Instructions and Part 3 of the RFSO entitled Offer Preparation Instructions, for further information on using this method.

### 1.3 Debriefings

Offerors may request a debriefing on the results of the request for standing offers process. Offerors should make the request to the Standing Offer Authority within 15 working days of receipt of the results of the request for standing offers process. The debriefing may be in writing, by telephone or in person.

### 1.4 Anticipated migration to an e-Procurement Solution (EPS)

Canada is currently developing an online EPS for faster and more convenient ordering of goods and services. In support of the anticipated transition to this system and how it may impact any resulting Standing Offer that is issued under this solicitation, refer to 6.13 Transition to an e-Procurement Solution (EPS).

The Government of Canada's [press release](#) provides additional information.

## PART 2 - OFFEROR INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the Request for Standing Offers (RFSO) 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.

Offerors who submit an offer agree to be bound by the instructions, clauses and conditions of the RFSO and accept the clauses and conditions of the Standing Offer and resulting contract(s).

The [2006](#) (2019-03-04) Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the RFSO.

Subsection 5.4 of [2006](#), Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 120 days

#### 2.1.1 SACC Manual Clauses

[M0019T](#) (2007-05-25) Firm Price and/or Rates

### 2.2 Submission of Offers

Offers must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the RFSO:

BRU:	Western Region Bid Receiving Unit (Winnipeg)
Address:	Room 310, 269 Main Street Winnipeg, MB R3C 1B3
E-post Connect:	<a href="mailto:ROReceptionSoumissions.WRBidReceiving@tpsgc-pwgsc.gc.ca">ROReceptionSoumissions.WRBidReceiving@tpsgc-pwgsc.gc.ca</a>

**Note:** Offers 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 Instruction [2006](#), or to

send offers through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Facsimile number: (204) 983-0338

### 2.3 Enquiries - Request for Standing Offers

All enquiries must be submitted in writing to the Standing Offer Authority no later than 10 calendar days before the Request for Standing Offers (RFSO) closing date. Enquiries received after that time may not be answered.

Offerors should reference as accurately as possible the numbered item of the RFSO to which the enquiry relates. Care should be taken by offerors 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 offerors do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all offerors. Enquiries not submitted in a form that can be distributed to all offerors may not be answered by Canada.

### 2.4 Applicable Laws

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

Offerors may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their offer, 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 offerors.

## PART 3 - OFFER PREPARATION INSTRUCTIONS

### 3.1 Offer Preparation Instructions

- If the Offeror chooses to submit its offer electronically, Canada requests that the Offeror submits its offer in accordance with section 08 of the 2006 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation. The offer must be gathered per section and separated as follows:

Section I: Financial Offer  
Section II: Certifications

- If the Offeror chooses to submit its offer in hard copies, Canada requests that the Offeror provides its offer in separately bound sections as follows:

Section I: Financial Offer (1 hard copy)  
Section II: Certifications (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 Offeror is simultaneously providing copies of its offer using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic

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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 OFFER ONLY. NO PRICES MUST BE INDICATED IN ANY OTHER SECTION OF THE OFFER.**

Canada requests that offerors follow the format instructions described below in the preparation of hard copy of their offer:

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

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](#) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, Offerors 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: Financial Offer**

Offerors must submit their financial offer in accordance with the Annex B, Basis of Payment.

**3.1.1 Electronic Payment of Invoices - Offer**

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

If **Annex D** 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 Exchange Rate Fluctuation**

[C3011T](#) (2013-11-06), Exchange Rate Fluctuation

**Section II: Certifications**

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

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

**4.1 Evaluation Procedures**

- (a) Offers will be assessed in accordance with the entire requirement of the Request for Standing Offers including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the offers.

#### **4.1.1 Financial Evaluation**

##### **4.1.1.1 Evaluation of Price**

SACC Manual Clause [M0222T](#) (2016-01-28), Evaluation of Price-Canadian/Foreign Bidders

#### **4.2 Basis of Selection**

SACC Manual Clause [M0069T](#) (2007-05-25), Basis of Selection

### **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Offerors must provide the required certifications and additional information to be issued a standing offer.

The certifications provided by offerors to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare an offer non-responsive, will have the right to set-aside a standing offer, or will declare a contractor in default if any certification made by the Offeror is found to be untrue whether made knowingly or unknowingly during the offer evaluation period, during the Standing Offer period, or during the contract period.

The Standing Offer Authority will have the right to ask for additional information to verify the Offeror's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Standing Offer Authority will render the offer non-responsive, result in the setting aside of the Standing Offer or constitute a default under the Contract.

#### **5.1 Certifications Required with the Offer**

Offerors must submit the following duly completed certifications as part of their offer.

##### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the Integrity Provisions of the Standard Instructions, all offerors must provide with their offer, **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 the Issuance of a Standing Offer and Additional Information**

The certifications and additional information listed below should be submitted with the offer, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Standing Offer Authority will inform the Offeror 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 offer 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 Offeror 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 - Standing Offer Certification

By submitting an offer, the Offeror certifies that the Offeror, and any of the Offeror's members if the Offeror 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-Labour's](https://www.canada.ca/en/employment-social-development/canada-labour's) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#s4>).

Canada will have the right to declare an offer non-responsive, or to set-aside a Standing Offer, if the Offeror, or any member of the Offeror if the Offeror is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of issuing of a Standing Offer or during the period of the Standing Offer.

## PART 6 - STANDING OFFER AND RESULTING CONTRACT CLAUSES

### A. STANDING OFFER

#### 6.1 Offer

6.1.1 The Offeror offers to fulfill the requirement in accordance with the Statement of Requirement at **Annex A**.

#### 6.2 Security Requirements

6.2.1 There is no security requirement applicable to the Standing Offer.

#### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Standing Offer and resulting contract(s) 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.

##### 6.3.1 General Conditions

[2005](#) (2017-06-21) General Conditions - Standing Offers - Goods or Services, apply to and form part of the Standing Offer.

##### 6.3.2 Standing Offers Reporting

The Offeror must compile and maintain records on its provision of goods and services to Canada under contracts resulting from the Standing Offer. This data must include all purchases done by Canada, including those acquired and paid for by Canada acquisition cards.

The Offeror must provide this data in accordance with the reporting requirements detailed in **Annex C** entitled "Usage Report". If some data is not available, the reason must be indicated in the report. If no goods or services is provided during a given period, the Offeror must provide a "nil" report.

The data must be submitted on an annual basis to the Standing Offer Authority.

The annual reporting periods are defined as follows:

- Year 1: date of issuance to 31 March 2021
- Year 2: 01 April 2021 to 31 March 2022

- Year 3: 01 April 2022 to 31 March 2023
- Year 4: 01 April 2023 to 31 March 2024
- Year 5: 01 April 2024 to 31 March 2025

The data must be submitted to the Standing Offer Authority no later than 10 calendar days after the end of the reporting period.

## 6.4 Term of Standing Offer

### 6.4.1 Period of the Standing Offer

The period for making call-ups against the Standing Offer is from date of issuance to 31 March 2025.

### 6.4.2 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at **Annex A** of the Standing Offer.

## 6.5 Authorities

### 6.5.1 Standing Offer Authority

The Standing Offer Authority is:

Cathleen Almonte, *B. Comm. (Hons.)*  
Supply Specialist  
Public Works and Government Services Canada  
Western Region  
Acquisitions Section  
Suite 310-269 Main Street  
Winnipeg, MB R3C 1B3

Telephone: (204) 229-3862 Facsimile: (204) 983-7796  
E-mail address: [cathleen.almonte@pwgsc-tpsgc.gc.ca](mailto:cathleen.almonte@pwgsc-tpsgc.gc.ca)

The Standing Offer Authority is responsible for the establishment of the Standing Offer, its administration and its revision, if applicable. Upon the making of a call-up, as Contracting Authority, he is responsible for any contractual issues relating to individual call-ups made against the Standing Offer by any Identified User.

### 6.5.2 Project Authority

The Project Authority for the Standing Offer is identified in the call-up against the Standing Offer.

The Project Authority is the representative of the department or agency for whom the Work will be carried out pursuant to a call-up against the Standing Offer and is responsible for all the technical content of the Work under the resulting Contract.

### 6.5.3 Offeror's Representative

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail: \_\_\_\_\_

## 6.6 Identified Users

The Identified User authorized to make call-ups against the Standing Offer is: TBD

## 6.7 Call-up Instrument

The Work will be authorized or confirmed by the Identified User(s) using the duly completed forms or their equivalents as identified in paragraphs 2 and 3 below, or by using Canada acquisition cards (Visa or MasterCard) for low dollar value requirements.

1. Call-ups must be made by Identified Users' authorized representatives under the Standing Offer and must be for goods or services or combination of goods and services included in the Standing Offer at the prices and in accordance with the terms and conditions specified in the Standing Offer.
2. Any of the following forms could be used which are available through [PWGSC Forms Catalogue](#) website:
  - PWGSC-TPSGC 942 Call-up Against a Standing Offer
  - PWGSC-TPGSC 942-2 Call-up Against a Standing Offer - Multiple Delivery
  - PWGSC-TPSGC 944 Call-up Against Multiple Standing Offers (English version)
  - PWGSC-TPSGC 945 Commande subséquente à plusieurs offres à commandes (French version)

or

3. An equivalent form or electronic call-up document which contains at a minimum the following information:
  - standing offer number;
  - statement that incorporates the terms and conditions of the Standing Offer;
  - description and unit price for each line item;
  - total value of the call-up;
  - point of delivery;
  - confirmation that funds are available under section 32 of the Financial Administration Act;
  - confirmation that the user is an Identified User under the Standing Offer with authority to enter into a contract.

## 6.8 Limitation of Call-ups

Individual call-ups against the Standing Offer must not exceed \$ TBD (Applicable Taxes included).

## 6.9 Financial Limitation - Total

The total cost to Canada resulting from call ups against the Standing Offer must not exceed the sum of \$TBD (*Applicable Taxes excluded*) unless otherwise authorized in writing by the Standing Offer Authority. The Offeror must not perform any work or services or supply any articles in response to call ups which would cause the total cost to Canada to exceed the said sum, unless an increase is so authorized.

The Offeror must notify the Standing Offer Authority as to the adequacy of this sum when 75 percent of this amount has been committed, or 3 months before the expiry date of the Standing Offer, whichever comes first. However, if at any time, the Offeror considers that the said sum may be exceeded, the Offeror must promptly notify the Standing Offer Authority.

## 6.10 Priority of Documents

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

- 
- a) the call up against the Standing Offer, including any annexes;
  - b) the articles of the Standing Offer;
  - c) the general conditions [2005](#) (2017-06-21), General Conditions - Standing Offers - Goods or Services
  - d) the general conditions [2010A](#) (2018-06-21), General Conditions – Goods (Medium Complexity);
  - e) Annex A, Statement of Requirement;
  - f) Annex B, Basis of Payment;
  - g) Annex C, Usage Reports; and
  - h) the Offeror's offer dated TBD.

## **6.11 Certifications and Additional Information**

### **6.11.1 Compliance**

Unless specified otherwise, the continuous compliance with the certifications provided by the Offeror with its offer or precedent to issuance of the Standing Offer (SO), and the ongoing cooperation in providing additional information are conditions of issuance of the SO and failure to comply will constitute the Offeror in default. Certifications are subject to verification by Canada during the entire period of the SO and of any resulting contract that would continue beyond the period of the SO.

### **6.12 Applicable Laws**

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

### **6.13 Transition to an e-Procurement Solution (EPS)**

During the period of the Standing Offer, Canada may transition to an EPS for more efficient processing and management of individual call-ups for any or all of the SO's applicable goods and services. Canada reserves the right, at its sole discretion, to make the use of the new e-procurement solution mandatory.

Canada agrees to provide the Offeror with at least a three-month notice to allow for any measures necessary for the integration of the Offer into the EPS. The notice will include a detailed information package indicating the requirements, as well as any applicable guidance and support.

If the Offeror chooses not to offer their goods or services through the e-procurement solution, the Standing Offer may be set aside by Canada.

## **B. RESULTING CONTRACT CLAUSES**

The following clauses and conditions apply to and form part of any contract resulting from a call-up against the Standing Offer.

### **6.1 Requirement**

The Contractor must provide the items detailed in the call-up against the Standing Offer.

### **6.2 Standard Clauses and Conditions**

#### **6.2.1 General Conditions**

[2010A](#) (2018-06-21), General Conditions - Goods (Medium Complexity) apply to and form part of the Contract.

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Section 16 Interest on Overdue Accounts, of 2010A (2018-06-21) General Conditions – Goods (Medium Complexity) will not apply to payments made by credit cards.

### **6.3 Term of Contract**

#### **6.3.1 Period of the Contract**

The period of the Contract is from TBD to TBD inclusive.

#### **6.3.2 Delivery Date**

Delivery must be completed in accordance with the call-up against the Standing Offer.

### **6.4 Payment**

#### **6.4.1 Basis of Payment – Firm Unit Price(s)**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit price(s), as specified in **Annex B** for a cost of \$ TBD. 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.

#### **6.4.2 Limitation of Price**

*SACC Manual* clause C6000C (2017-08-17) Limitation of Price

#### **6.4.3 Single Payment**

H1000C (2008-05-12) Single Payment

#### **6.4.4 SACC Manual Clauses**

C2000C (2007-11-30) Taxes – Foreign-based Contractor

C0705C (2010-01-11) Discretionary Audit

#### **6.4.5 Electronic Payment of Invoices – Call-up**

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

### **6.5 Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- a. a copy of the release document and any other documents as specified in the Contract;

2. Invoices must be distributed as follows:

Solicitation No. - N° de l'invitation  
W7702-206228/A  
Client Ref. No. - N° de réf. du client  
W7702-206228

Amd. No. - N° de la modif.  
File No. - N° du dossier  
W7702-206228

Buyer ID - Id de l'acheteur  
wpg080  
CCC No./N° CCC - FMS No./N° VME

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

## **6.6 Insurance**

*SACC Manual* clause [G1005C](#) (2016-01-28) Insurance – No Specific Requirement

## **6.7 SACC Manual Clauses**

[B7500C](#) (2006-06-16) Excess Goods

[B1505C](#) (2016-01-28) Shipment of Dangerous Goods/Hazardous Products

[D3015C](#) (2014-09-25) Dangerous Goods / Hazardous Products – Labelling and Packaging Compliance

[D5328C](#) (2014-06-26) Inspection and Acceptance

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## **STATEMENT OF REQUIREMENT**

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### **1. TITLE**

Medical radioisotopes for training

### **2. BACKGROUND**

Medical Isotopes have been used for training for over 10 years at CTTC. The training objectives of the unsealed source material require that the participants recognize the presence of non-fixed contamination, take a radioactive sample and practice contamination control. These training objectives require the use of an unsealed source. Medical Isotopes meet these training requirements, and in addition: their short half-life allows the scene to remain “hot” throughout the exercise but to be cold within days/weeks, and it has been used in previous exercises so safety staff are accustomed to handling it.

### **3. ACRONYMS**

Ci	Curie
CTTC	Counter terrorism technology centre
DRDC	Defence Research and Development Canada
Ga-67	Gallium-67
mCi	milli-Curie
RNTG	Radiological and Nuclear Technologies Group
SRC	Suffield Research Centre
SOR	Statement of Requirement
TA	Technical Authority
Tc-99m	Technetium-99 metastable

### **4. APPLICABLE DOCUMENTS (AD) & REFERENCES**

**AD1:** Nuclear Substance and Ionizing Radiation Device Authorization (1445-R-05-17)

### **5. REQUIREMENTS**

#### **5.1 Medical Isotopes**

The Offeror must provide the requirement with the following specifications:

Number	Specifications	Value	Quantity and Format
5.1.1	1.0-3.0 Ci Tc-99m Generator	TBD	Up to 30 generators over 5 years
5.1.2	6.6 mCi Ga-67	TBD	Up to 30 orders over 5 years
5.1.3	13.2 mCi Ga-67	TBD	Up to 30 orders over 5 years
5.1.4	20mL eluant vials	TBD	Up to 250 vials over 5 years
5.1.5	30mL evacuated vials	TBD	Up to 250 vials over 5 years
5.1.6	Additional medical isotopes as required.	TBD	Up to 30 orders over 5 years

## 6. Deliverables

### 6.1 Deliverables for requirement 5.1: Medical Isotopes

Delivery of goods specified in Section 5 as required.

## 7. DATE OF DELIVERY

**Deliverable 6.1:** As required. It is expected that the vendor will ship within 3 weeks of the call-up. If vendor is unable to meet this requirement, the vendor must notify the buyer immediately.

## 8. Language of Work

English.

## 9. DELIVERY LOCATION

Defence Research and Development Canada – Suffield Research Centre  
Building 560 Shipping and Receiving  
Mount Sorrell Road  
Ralston, Alberta.  
T0J 2P0  
Canada

## 10. Travel

The Contractor is not required to travel.

## 11. MEETINGS

Not required

**12. GOVERNMENT SUPPLIED MATERIAL (GSM)**

None

**13. GOVERNMENT FURNISHED EQUIPMENT (GFE)**

None

**14. SPECIAL CONSIDERATIONS**

Radiation Safety Officer (or Acting) must be available for delivery.

**15. SECURITY**

All work is unclassified and the Contractor will not have access to any classified information.

**16. Intellectual Property (IP) Ownership**

Not applicable

**17. Controlled Goods**

Not applicable

**18. Technical Authority INFORMATION**

TBA

**ANNEX B**

**BASIS OF PAYMENT**

It is **MANDATORY** that Offeror's submit firm, all-inclusive prices/rates for the period of the proposed Standing Offer Agreement for all items listed hereafter.

**THIS SECTION, WHEN COMPLETED, WILL BE CONSIDERED AS THE OFFEROR'S FINANCIAL PROPOSAL.**

Offerors shall provide offers as per unit of issue requested. It is the responsibility of the Offeror to provide conversion to the unit of issue requested. Failure to do so will render the offer non-responsive without further consideration.

Should there be an error in the extended pricing of the Offeror's proposal, the unit pricing shall prevail and the extended pricing shall be corrected in the evaluation. Any errors in the quantities of the Offeror's proposal shall be changed to reflect the quantities stated in the RFSO. The quantities specified below are provided for evaluation purposes only.

Rates quoted must remain firm for the period of the Standing Offer Agreement. Rates MUST include ALL costs associated with providing the requirement in accordance with Annex A – Statement of Requirement attached herein. GST, if applicable, is not included and is to be shown as a separate item on any resulting invoice.

FOB Destination:

Defense Research and Development Canada - Suffield Research Centre  
Building 560  
560 Mount Sorrel Road  
Ralston, AB T0J 2N0

Payment will be made in accordance with the following pricing.

**PRICING TABLE:**

<b>Firm Unit Pricing, GST (if applicable) Extra, F.O.B. Destination, including all fees, as applicable (environment levy, deposits, delivery, offloading, applicable fuel surcharges, customs, duties and brokerage fees)</b>						
<b>ITEM NO.</b>	<b>PART NO.</b> <i>Offeror to fill in Part No.</i>	<b>DESCRIPTION</b>	<b>(A) EST. QTY.</b>	<b>UNIT OF ISSUE</b>	<b>(B) UNIT RATE (CAD)</b>	<b>(C) EXTENDED RATE (CAD)</b>  C = A x B
<b>A</b>	<b>Standing Offer Agreement Year 1: date of issuance – 31 March 2021</b>					
1		1.0 – 3.0 Ci Tc-99m Generator	6	each	\$	\$
2		6.6mCi GA-67	6	each	\$	\$
3		13.2 mCi Ga-67	6	each	\$	\$
4		20mL Evacuated Vial	50	each	\$	\$
5		30mL Evacuated Vial	50	each	\$	\$
6		Additional Medical Isotopes	6	each	\$	\$
7		Spot Order Charge	24	each	\$	\$

Solicitation No. - N° de l'invitation  
W7702-206228/A  
Client Ref. No. - N° de réf. du client  
W7702-206228

Amd. No. - N° de la modif.  
File No. - N° du dossier  
W7702-206228

Buyer ID - Id de l'acheteur  
wpg080  
CCC No./N° CCC - FMS No./N° VME

<b>Firm Unit Pricing, GST (if applicable) Extra, F.O.B. Destination, including all fees, as applicable (environment levy, deposits, delivery, offloading, applicable fuel surcharges, customs, duties and brokerage fees)</b>						
<b>ITEM NO.</b>	<b>PART NO.</b> <i>Offeror to fill in Part No.</i>	<b>DESCRIPTION</b>	<b>(A) EST. QTY.</b>	<b>UNIT OF ISSUE</b>	<b>(B) UNIT RATE (CAD)</b>	<b>(C) EXTENDED RATE (CAD)</b>  C = A x B
8		Standing Order Charge	24	each	\$	\$
9		Generator Return Charge	24	each	\$	\$
<b>Subtotal (i):</b>						<b>\$</b>
<b>B Standing Offer Agreement Year 2: 01 April 2021 – 31 March 2022</b>						
10		1.0 – 3.0 Ci Tc-99m Generator	6	each	\$	\$
11		6.6mCi GA-67	6	each	\$	\$
12		13.2 mCi Ga-67	6	each	\$	\$
13		20mL Evacuated Vial	50	each	\$	\$
14		30mL Evacuated Vial	50	each	\$	\$
15		Additional Medical Isotopes	6	each	\$	\$
16		Spot Order Charge	24	each	\$	\$
17		Standing Order Charge	24	each	\$	\$
18		Generator Return Charge	24	each	\$	\$
<b>Subtotal (ii):</b>						<b>\$</b>
<b>C Standing Offer Agreement Year 3: 01 April 2022 – 31 March 2023</b>						
19		1.0 – 3.0 Ci Tc-99m Generator	6	each	\$	\$
20		6.6mCi GA-67	6	each	\$	\$
21		13.2 mCi Ga-67	6	each	\$	\$
22		20mL Evacuated Vial	50	each	\$	\$
23		30mL Evacuated Vial	50	each	\$	\$
24		Additional Medical Isotopes	6	each	\$	\$
25		Spot Order Charge	24	each	\$	\$
26		Standing Order Charge	24	each	\$	\$
27		Generator Return Charge	24	each	\$	\$
<b>Subtotal (iii):</b>						<b>\$</b>
<b>D Standing Offer Agreement Year 4: 01 April 2023 – 31 March 2024</b>						
28		1.0 – 3.0 Ci Tc-99m Generator	6	each	\$	\$
29		6.6mCi GA-67	6	each	\$	\$
30		13.2 mCi Ga-67	6	each	\$	\$
31		20mL Evacuated Vial	50	each	\$	\$
32		30mL Evacuated Vial	50	each	\$	\$
33		Additional Medical Isotopes	6	each	\$	\$
34		Spot Order Charge	24	each	\$	\$
35		Standing Order Charge	24	each	\$	\$
36		Generator Return Charge	24	each	\$	\$
<b>Subtotal (iv):</b>						<b>\$</b>

Solicitation No. - N° de l'invitation  
W7702-206228/A  
Client Ref. No. - N° de réf. du client  
W7702-206228

Amd. No. - N° de la modif.  
File No. - N° du dossier  
W7702-206228

Buyer ID - Id de l'acheteur  
wpg080  
CCC No./N° CCC - FMS No./N° VME

Firm Unit Pricing, GST (if applicable) Extra, F.O.B. Destination, including all fees, as applicable (environment levy, deposits, delivery, offloading, applicable fuel surcharges, customs, duties and brokerage fees)						
ITEM NO.	PART NO. <i>Offeror to fill in Part No.</i>	DESCRIPTION	(A) EST. QTY.	UNIT OF ISSUE	(B) UNIT RATE (CAD)	(C) EXTENDED RATE (CAD)  C = A x B
<b>E</b>	<b>Standing Offer Agreement Year 5: 01 April 2024 – 31 March 2025</b>					
37		1.0 – 3.0 Ci Tc-99m Generator	6	each	\$	\$
38		6.6mCi GA-67	6	each	\$	\$
39		13.2 mCi Ga-67	6	each	\$	\$
40		20mL Evacuated Vial	50	each	\$	\$
41		30mL Evacuated Vial	50	each	\$	\$
42		Additional Medical Isotopes	6	each	\$	\$
43		Spot Order Charge	24	each	\$	\$
44		Standing Order Charge	24	each	\$	\$
45		Generator Return Charge	24	each	\$	\$
					<b>Subtotal (v):</b>	<b>\$</b>

**Total Evaluated Price: Subtotal (i) + (ii) + (iii) + (iv) + (v) = \$ \_\_\_\_\_**



Solicitation No. - N° de l'invitation  
W7702-206228/A  
Client Ref. No. - N° de réf. du client  
W7702-206228

Amd. No. - N° de la modif.  
File No. - N° du dossier  
W7702-206228

Buyer ID - Id de l'acheteur  
wpg080  
CCC No./N° CCC - FMS No./N° VME

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**ANNEX D**

***to PART 3 OF THE REQUEST FOR STANDING OFFERS***

**ELECTRONIC PAYMENT INSTRUMENTS**

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The Offeror accepts to be paid by 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)



National Defence

Défense nationale

National Defence Headquarters  
Ottawa, Ontario  
K1A 0K2

Quartier général de la Défense nationale  
Ottawa (Ontario)  
K1A 0K2

NUCLEAR SUBSTANCE AND  
IONIZING RADIATION DEVICE  
AUTHORIZATION

AUTORIZATION PORTANT SUR LES  
SUBSTANCES NUCLÉAIRES ET LES  
APPAREILS À RAYONNEMENT

1445-R-05-17

**I) AUTHORIZATION NUMBER: 1445-R-05-17**

**II) AUTHORIZED UNIT:**

Pursuant to paragraph 70 of the Nuclear Safety Orders and Directives, this authorization is issued to the responsible authority:

Centre Director  
Defence Research and Development Canada – Suffield Research Centre  
PO Box 4000 STN MAIN  
Medicine Hat, AB T1A 8K6

**III) AUTHORIZATION PERIOD:**

This authorization is valid until amended, revoked or replaced by Director Nuclear Safety (D N Safe).

**IV) AUTHORIZED PRACTICES AND HOLDINGS:**

Pursuant to the conditions of PART I of this authorization, the unit is authorized to possess, use, store, transfer, and maintain the nuclear substances and ionizing radiation devices listed in PART II – Authorized Nuclear Substances (Sealed) and Ionizing Radiation Devices and the nuclear substances listed in PART III – Authorized Nuclear Substances (Unsealed).

**PART I – REQUIREMENTS**

This authorization comprises the following parts:

PART	TITLE
I	Requirements
II	Authorized Nuclear Substances and Ionizing Radiation Devices
III	Authorization To Purchase Unsealed Nuclear substances
Annex A	Use, Handling and Storage of Nuclear Substances and Ionizing Radiation Devices
Annex B	Dosimetry
Annex C	Explosive Ordinance Disposal Operations and Training
Annex D	Radiation Detection Equipment
Annex E	Industrial Radiography Operations and Training (x-ray)
Annex F	Contamination Control
Annex G	Analytical X-ray Device Operations and Training
Annex H	Security Screening X-ray Device Operations and Training
Annex I	Not used
Annex J	Portable Nuclear Gauge Operations and Training

In cases where there is a conflict between the requirements in the Nuclear Safety Orders and Directives and the requirements within this authorization, the requirements within this authorization shall take precedence.

The contents of the attached annexes form part of the authorization.

**V) CONDITIONS:**

1. Radiation Safety Officer
  - a. The responsible authority shall appoint, in writing, a Radiation Safety Officer (RadSO) who is responsible for management of the radiation safety program at the unit and who will act as the unit point of contact for D N Safe.
  - b. The responsible authority shall appoint, in writing, an Alternate Radiation Safety Officer (A/RadSO) who will assume responsibility for management of the radiation safety program at the unit and who will act as the unit point of contact for D N Safe in the absence of the RadSO.
  - c. The RadSO and A/RadSO shall possess the Radiation Safety Specialist qualification (AIOL) or equivalent training as approved by D N Safe.
  - d. The RadSO and A/RadSO shall have sufficient education, training and experience to properly manage a complex, research based radiation safety program.
  - e. The nomination, including education, training and experience details, shall be forwarded to D N Safe for acceptance.
2. Radiation Safety Management System
  - a. The DRDC Suffield Research Centre Radiation Safety Management System is defined by the current approved version of the following documents:
    - i. DRDC SUFFIELD AP 2014-20 – DRDC Suffield Research Centre Nuclear Substances and Ionizing Radiation Devices (NSIRD) Management System, hereunder referred to as “the management system”; and
    - ii. DRDC SUFFIELD AP 05-2014 – DRDC Suffield Safety Manual, hereunder referred to as the “safety manual”.
  - b. All amendments to the management system shall be reviewed and accepted by D N Safe prior to implementation.
  - c. Other than administrative changes, amendments to a procedure that has been reviewed and signed by D N Safe or a procedure that forms part of this authorization shall be submitted to D N Safe for review and acceptance prior to implementation.
  - d. All documentation within the management system shall be reviewed by the unit at the periodicity specified in the management system.
3. Acquisition, Use, Handling and Storage
  - a. Acquisition, by any means, of controlled materials and devices that contain or produce ionizing radiation shall be approved by D N Safe.
  - b. The unit is authorized to procure sealed and unsealed sources subject to the limitations detailed in Part II.

- c. Use, handling and storage of nuclear substances and ionizing radiation devices shall be in accordance with the current approved revision of Annex A - Use, Handling and Storage of Nuclear Substances and Ionizing Radiation Devices and the current approved version of the safety manual.
  - d. The use of unsealed sources is authorized in the following locations:
    - i. All buildings, training aids and open areas within the DRDC Suffield Research Centre Experimental Proving Ground (EPG); and
    - ii. All radioisotope laboratories currently designated as such in accordance with the safety manual and have been approved by D N Safe.
  - e. The use of unsealed sources within radioisotope laboratories shall be subject to the quantity restrictions noted in paragraph 13.
  - f. The use of unsealed sources in locations then those listed in subparagraphs d and e above shall be approved by D N Safe.
  - g. The use of sealed sources on DND/CAF real property is authorized in accordance with an approved Radiation Practice Approval Form (RadPAF). The use of sealed sources on non-DND/CAF real property shall be approved by D N Safe.
  - h. The unit shall conduct radiation surveys (both gamma and neutron where applicable) of all locations where the materials in Part II are stored. These surveys shall be done on an annual basis or whenever the inventory or conditions in a storage location changes. Records of these surveys shall be maintained.
4. Transfer, Shipping and Transport
- a. The materials listed in PART II shall be properly packaged and shipped in accordance with the following :
    - i. For excepted packages in accordance with the current version of the document “Steps for Shipping Excepted Packages” available on the D N Safe website; and
    - ii. For type A or type B packages as directed by D N Safe.
  - b. The materials listed in PART II shall only be transferred to another DND/CAF unit in possession of a valid D N Safe authorization to possess such materials. Transfer of materials listed in PART II outside DND/CAF or to another DND/CAF unit OUTCAN requires D N Safe approval.
  - c. Records of all transfers and shipments shall be maintained.
5. Maintenance
- a. Maintenance and repair of x-ray devices listed in PART II shall only be conducted by D N Safe approved repair facilities.
  - b. Maintenance or modification involving the radioactive components of any other devices listed in PART II shall not be conducted by the unit.

6. Decommissioning and Disposal
  - a. Decommissioning of equipment and/or facilities and the disposal of nuclear substances and ionizing radiation devices shall be directed and approved by D N Safe.
  - b. Radioactive waste shall be handled and managed in accordance with Annex D of the current approved version of the safety manual.
  - c. The following locations shall be fully decommissioned and a Radiological Compliance Certificate issued before being released for other use or disposed of:
    - i. All radioisotope laboratories designated in paragraph 13;
    - ii. Building 600 Room 133;
    - iii. Building 1, 5<sup>th</sup> floor waste collection locker;
    - iv. Building 10 Room 42A waste collection locker;
    - v. Colin Watson Aerosol Layout (CWAL) - Hazmat Storage Building;
    - vi. CWAL - Kimbell Cooker Incinerator;
    - vii. Contaminated sites under management as defined in paragraph 20; and
    - viii. All other buildings, structures, training aids and open areas within the EPG.
  - d. Disposal of low level radioactive waste by incineration shall be conducted in accordance with current approved version of the management system and shall be approved by D N Safe.
7. Operator Training
  - a. Unit personnel conducting controlled practices shall be fully trained and qualified in accordance with the current approved version of the management system and in accordance with the training requirements of the applicable SOP.
8. Awareness Training
  - a. The unit shall conduct awareness training for all personnel who routinely work with, or may encounter any controlled materials or practices.
  - b. The depth/complexity of the training shall be tailored to the target audience and shall include radiation protection contact information.
  - c. Records of awareness training attendance/participation shall be kept for a minimum of 3 years after the record is produced.

9. Dose Monitoring and Control
- a. Dosimeters shall be worn and dosimetry operations shall be conducted in accordance with the current approved revision of Annex B – Dosimetry and in accordance with the current approved version of the management system and the current approved version of the safety manual.
  - b. The following dosimeters offered by the National Dosimetry Service shall be the only dosimeters of record used by the unit:
    - i. Standard thermoluminescent dosimeter (TLD);
    - ii. the next generation thermoluminescent dosimeter (TLD);
    - iii. the InLight optically stimulated luminescence dosimeter (OSL);
    - iv. TLD ring dosimeter; and
    - v. CR-39 neutron dosimeter.
  - c. The following dosimeters offered by the Bubble Technology Industries shall be the only direct reading neutron dosimeters used by the unit:
    - i. Bubble detector.
  - d. The SOR/RF shall be the only electronic dosimeter used by the unit.
10. Dose Limits
- a. The exposure to occupational ionizing radiation of personnel at the unit who are trained and authorized to conduct controlled activities shall not exceed 2 milliSieverts per year or 1 milliSieverts in any dosimetry reporting period.
  - b. Any dose in excess of the occupational limits shall be reported to D N Safe as soon as practicable in accordance with Annex B – Dosimetry, paragraph 14.
11. Training, Exercise and Research and Development
- a. The unit is authorized to conduct training, exercise, research and development using the materials listed in Part II in accordance with the current requirements of the management system and the current approved revision of the unit procedure DRDC Suffield SOP 125-2014 - Handling Nuclear Substances for Training.
12. Irradiator Operations
- a. The unit shall conduct irradiator operations in accordance with the current approved revision of the unit procedure DRDC Suffield SOP 110-2015 – Gammacell Extractor Irradiator.

13. Radioisotope Laboratory Operations
- a. The designation of all radioisotope laboratories shall be approved by D N Safe prior to the commencement of laboratory operations.
  - b. The unit shall maintain records of the designation and decommissioning of all radioisotope laboratories.
  - c. The quantity of each unsealed source, expressed as annual limit on intake (ALI), used at any given time in a designated lab shall not exceed the following limits:
    - i. Basic laboratory – not more than 5 ALI;
    - ii. Intermediate laboratory – not more than 50 ALI; and
    - iii. High laboratory – not more than 500 ALI.
  - d. The ALIs for select isotopes are defined in the regulatory guidance document GD-52 – Design Guide for Nuclear Substance Laboratories and Nuclear Medicine Rooms available from the Canadian Nuclear Safety Commission. D N Safe shall provide the unit the ALI for an isotope used by the unit which is not available in this document.
  - e. The following locations are designated radioisotope laboratories:
    - i. Building 1 Room 415 – Basic laboratory;
    - ii. Building 10 Room 11 – Basic laboratory;
    - iii. Building 10 Room 19 – Basic laboratory;
    - iv. Building 10 Room 51 – Basic laboratory; and
    - v. Building 96 Laboratory – Basic laboratory.
  - f. Laboratory operations shall be conducted in accordance with the current approved management system and the current approved revision of the applicable unit procedure DRDC Suffield SOP 121-2014 – Radiolabeled Cellular and Biochemical Assays or DRDC Suffield SOP 125-2014 – Handling Nuclear Substances for Training.
  - g. Laboratory waste shall be handled in accordance with the current approved version of the safety manual.
14. Explosive Ordinance Disposal (EOD) Operations and Portable Isotopic Neutron Spectroscopy (PINS) Operations
- a. The unit shall conduct EOD operations and training in accordance with the current approved revision of Annex C – Explosive Ordinance Disposal Operations and Training and the current approved version of DRDC Suffield SOP 124-2014 - Portable X-ray Systems.
  - b. The unit shall conduct PINS operations and training in accordance with the current approved revision of the unit procedure DRDC Suffield SOP 096-2015 – Portable Isotopic Neutron Spectroscopy (PINS) Chemical Assay System.

15. Neutron Generator Operations and Research
  - a. The unit shall conduct neutron generation operations and research in accordance with the current approved revision of the unit procedure DRDC Suffield SOP 104-2011 – Electronic Neutron Generators.
16. Portable Gauge Operations
  - a. The unit shall conduct portable gauge operations and research in accordance with the current approved revision of Annex J – Portable Nuclear Gauge Operations and Training and the unit procedure DRDC Suffield SOP 120-2014 – Humboldt 5001B Series Compaction Control Gauge.
17. Analytical X-ray Operations and Training
  - a. The unit shall conduct analytical operations and research in accordance with the current approved revision of Annex G – Analytical X-ray Device Operations and Training.
18. Industrial Radiography Operations and Training (X-ray)
  - a. The unit shall conduct industrial radiography operations and research in accordance with the current approved revision of Annex E – Industrial Radiography Operations and Training (X-ray) and the current approved revision of the following unit procedures:
    - i. DRDC Suffield SOP 061-2016 – Flash X-ray site; and
    - ii. DRDC-SRC-2016-Rad SOP-122 – TEMP Facility MG452 X-ray System.
  - b. Exceptions to Annex E – Industrial Radiography Operations and Training (X-ray) applicable to DRDC-SRC Flash X-ray site are detailed below:
    - i. Part 1, paragraph 7(d) does not apply;
    - ii. Part 2 paragraph 12 is replaced with the “Authorized users of the flash x-ray generators shall be trained at a minimum to the Canadian General Standards Board certification Level I (RT) standard and shall have complete the training requirements of the above SOP”;
    - iii. Part 2 paragraph 13 is replaced with the “Trainees of the flash x-ray generators shall be trained at a minimum to the Canadian General Standards Board certification Level I (RT) standard; and shall have complete the training requirements of the above SOP”; and
    - iv. Part 3, paragraph 18 does not apply.

19. Security Screening X-ray Operations and Research
- a. The unit shall conduct security screening x-ray operations and research in accordance with the current approved revision of Annex H – Security Screening X-ray Operations and Training and in accordance with an approved Field Trial Plan with the following exceptions:
    - i. Notwithstanding the requirements of Annex H, paragraph 24(j) and 24(l), the device may be operated with the panels and shrouds removed and the photocell disabled; and
    - ii. Notwithstanding the requirements of Annex H paragraph 24(i), the device may be operated with continuous pressure safety systems bypassed in accordance with an approved Field Trial Plan.
  - b. The device may be operated for research and development purposes only.
20. Contaminated Sites
- a. The following sites are designated radiologically contaminated and require management in accordance with the requirements of this paragraph:
    - i. Beaver Road Site - In the area of MGRS grid 12U WA 004 827; and
    - ii. Site 27 – In the area of MGRS grid 12U VA 973 786.
  - b. Each contaminated site shall be access controlled by way of a perimeter fence which shall be of sufficient height as to prevent in the ingress of personnel.
  - c. The perimeter fence shall bear sufficient radiation warning signage as to alert personnel that they are approaching a radiological hazard zone.
  - d. Each contaminated site shall be inspected at least every 6 months to confirm the integrity of the perimeter fence and confirm the presence of the radiation warning signs.
  - e. The unit shall maintain a record of these inspections.
21. Radiation Detection Equipment
- a. The radiation detection equipment listed in PART II shall be used in accordance with the current approved revision of Annex D – Radiation Detection Equipment. This is exclusive of operational CBRNE equipment and radiation detection equipment used for scientific, instructional or project purposes.

22. Contamination Control

- a. The sealed sources listed in Part II that exceed  $5.0 \times 10^7$  Bq shall be leak tested every 6 months.
- b. Radiation devices and irradiators listed in Part II shall be leak tested every 12 months.
- c. The locations detailed in paragraphs 6(c)(i), (ii), (iii), (iv) shall be swipe checked for contamination every 12 months.
- d. Swipe tests and leak checks shall be conducted in accordance with the current approved version of Annex F – Contamination Control and current approved version of safety manual or the specific device operating manual.

23. Radiological Occurrences

- a. Any non-normal occurrence that has actual or potential radiological consequences shall be managed in accordance with the following requirements:
  - i. actions shall be taken to limit to the extent possible the spread of radioactive contamination;
  - ii. actions shall be taken to minimize doses to personnel and the environment;
  - iii. details of the occurrence shall be recorded for reporting including the contact information of any personnel involved in the occurrence and witnesses; and
  - iv. D N Safe shall be contacted as soon as practicable.

Directeur – Sûreté nucléaire  
Capitaine de frégate



M.W. Walker  
Commander  
Director Nuclear Safety

**PART II – Authorized Nuclear Substances and Ionizing Radiation Devices**

Unsealed Nuclear Substances – Laboratory

Isotope	Maximum activity permitted (Bq)
H-3	$1.0 \times 10^9$
C-14	$3.7 \times 10^8$

Isotope	Maximum activity permitted (Bq)
P-32	$3.7 \times 10^8$
Tc-99m	$1.2 \times 10^{11}$ (2)

Isotope	Maximum activity permitted (Bq)

Unsealed Nuclear Substances – Training and Exercise

Isotope	Maximum activity permitted (Bq)
Na-24	$3.7 \times 10^9$
K-42	$1.0 \times 10^9$
Cu-64	$1.0 \times 10^9$

Isotope	Maximum activity permitted (Bq)
Ga-67	$5.0 \times 10^9$
Tc-99m	$1.2 \times 10^{11}$ (2)
La-140	$1.0 \times 10^9$

Isotope	Maximum activity permitted (Bq)
Sm-153	$1.0 \times 10^9$
Ho-166	$1.0 \times 10^9$
W-187	$1.0 \times 10^9$

- (1) All unsealed sources are authorized for use for research and development purposes.  
(2) This is the cumulative possession limit for Tc-99m for all approved uses.

Sealed Nuclear Sources

Isotope	Maximum activity per source (Bq)	Maximum number of sources	Isotope	Maximum activity per source (Bq)	Maximum number of sources
Co-60	$1.85 \times 10^8$	1	Cs-137	$3.7 \times 10^9$	2
Co-60	$1.85 \times 10^7$	1	Cs-137	$5.0 \times 10^8$	4
Kr-85	$9.25 \times 10^7$	1	Cs-137	$1.0 \times 10^5$	7
Sr-90	$1.85 \times 10^7$	1	Am-241	$3.7 \times 10^7$	1
Ba-133	$3.7 \times 10^7$	1	Eu-152	$9.25 \times 10^6$	2
Cs-137	$7.4 \times 10^{10}$	2	Cf-252	$1.5 \times 10^9$	1
Cs-137	$1.85 \times 10^{10}$	2	Cf-252	$2.0 \times 10^8$	2

**PART II – Authorized Nuclear Substances and Ionizing Radiation Devices - Continued**

Radiation Detection Equipment

NSN	Device Description	Source (if applicable)	Maximum activity per device (Bq) (if applicable)	Maximum number of devices
6665-00-431-4396	DETECTOR, RADIAC (Eberline ASP-1 N Detector)	N/A	N/A	5
6665-01-619-6435	DETECTOR, RADIAC (Thermo Personal Radiation Detector)	N/A	N/A	15
6665-20-005-1515	RADIAC METER (INTERCEPTOR)	N/A	N/A	5
6665-20-005-2815	GAMMA SURVEY METER KIT, PORTABLE	N/A	N/A	10
6665-20-005-8223	RADIAC METER (TBM-3S)	N/A	N/A	15
6665-20-005-9576	SURVEY/CONTAMINATIONMETER KIT, PORTABLE	N/A	N/A	10
6665-20-005-9590	NEUTRON SURVEY METER KIT, PORTABLE	N/A	N/A	5
6665-21-913-3794	ADVANCED SURVEY METER KIT	Cs-137	296 kBq	15
6665-21-921-6477	DETECTOR KIT, CBR AGENTS (RDS-100)	N/A	N/A	5

Ionizing Radiation Devices (Nuclear)

NSN	Device Description	Source	Maximum activity per device (Bq)	Maximum number of devices
3392-00-000-0002	SENTINEL 660 BRAVO GAMMA PROJECTOR	Ir-192	Not Authorized	2
		DU	$2.0 \times 10^8$	
6635-21-877-0038	DETECTOR, MOISTURE CONTENT (HUMBOLT 5001B)	Cs-137	$4.1 \times 10^8$	1
		Am-241/Be	$1.6 \times 10^9$	
0000144500064	PERKIN ELMER TRICARB 3100TR LIQUID SCINTILLATION COUNTER	Ba-133	$6.95 \times 10^6$	1
0000144500111	Thermo P385 Neutron Generator DD Head	N/A	N/A	1
	Thermo P385 Neutron Generator DT Head	H-3	$5.55 \times 10^{10}$	2
0000144500112	Thermo API 120 Neutron Generator DT Head	H-3	$7.4 \times 10^{10}$	1
0000144500113	Static Master Model P-2042	Po-210	$1.85 \times 10^8$	2
0000144500114	Aerosol Neutralizer Model 3077A	Kr-85	$3.70 \times 10^8$	2

**PART II – Authorized Nuclear Substances and Ionizing Radiation Devices - Continued**

Irradiators

NSN	Device Description	Source	Maximum activity per device (Bq)	Maximum number of devices
0000144500104	Gammacell 40	Cs-137	1.26 x10 <sup>14</sup>	1

Ionizing Radiation Devices (X-ray)

NSN	Device Description	Maximum energy (keV)	Maximum number of devices
6350-20-002-4871	SECURITY INSPECTION UNIT, X-RAY (Heimann Model HS 6040i)	140	1
6635-01-608-7857	X-RAY APPARATUS, RADIOGRAPHIC, INDUSTRIAL (XRS-3) X-RAY	300	1
6635-21-891-2771	X-RAY APPARATUS, RADIOGRAPHIC, INDUSTRIAL (XRS-2) X-RAY	150	1
0000144500038	Flash X-ray Pulsar Model 43734-62900	450	4
0000144500042	Flash X-ray Pulsar Model 43710-82800	1000	4
0000144500044	Flash X-ray Pulsar Model 235	150	2
0000144500117	Yxlon MG452	600	1
0000144500123	Bruker AXS Model D8 X1-1 X-ray Diffractometer	40	1
0000144500124	EOD/IEDD X-Ray (XRS-4)	400	1



National Defence

Défense nationale

National Defence Headquarters  
Ottawa, Ontario  
K1A 0K2

Quartier général de la Défense nationale  
Ottawa (Ontario)  
K1A 0K2

NUCLEAR SUBSTANCE AND  
IONIZING RADIATION DEVICE  
AUTHORIZATION

AUTORIZATION PORTANT SUR LES  
SUBSTANCES NUCLÉAIRES ET LES  
APPAREILS À RAYONNEMENT

1445-R-05-17

**PART III – Authorization to Purchase Unsealed Nuclear Substances**

**I) AUTHORIZATION NUMBER: 1445-R-05-17**

**II) AUTHORIZED UNIT:**

Pursuant to paragraph 70 of the Nuclear Safety Orders and Directives, this authorization is issued to the responsible authority:

Centre Director  
Defence Research and Development Canada – Suffield Research Centre  
PO Box 4000 STN MAIN  
Medicine Hat, AB T1A 8K6

**III) AUTHORIZATION PERIOD:**

This authorization is valid until amended, revoked or replaced by Director Nuclear Safety (D N Safe).

1. The unit is authorized to purchase unsealed sources as detailed in Table 1.

**Table 1**

Isotope	Maximum activity permitted (Bq)	Isotope	Maximum activity permitted (Bq)	Isotope	Maximum activity permitted (Bq)
H-3	$1.0 \times 10^9$	K-42	$1.0 \times 10^9$	La-140	$1.0 \times 10^9$
C-14	$3.7 \times 10^8$	Cu-64	$1.0 \times 10^9$	Sm-153	$1.0 \times 10^9$
Na-24	$3.7 \times 10^9$	Ga-67	$5.0 \times 10^9$	Ho-166	$1.0 \times 10^9$
P-32	$3.7 \times 10^8$	Mo-99/Tc-99m	$1.2 \times 10^{11}$	W-187	$1.0 \times 10^9$

2. Purchased unsealed sources shall be shipped to:

Attn: Radiation Safety Officer  
Defence Research and Development Canada – Suffield Research Centre  
Bldg 560 - Shipping and Receiving  
Ralston, AB T1A 8K6

Défense nationale  
Directeur – Sûreté nucléaire  
Capitaine de frégate

M.W. Walker  
Commander  
Director Nuclear Safety  
National Defence