RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St./ 11 rue, Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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

Issuing Office - Bureau de distribution
Scientific, Medical and Photographic Division / Division de l'équipement scientifique, des produits photographiques et pharmaceutiques
11 Laurier St./ 11 rue, Laurier
6B1, Place du Portage
Gatineau, Québec K1A 0S5

Title - Sujet Radiation Portal Monitor	
Solicitation No. - N° de l'invitation 47064-130497/A	**Amendment No. - N° modif.** 001
Client Reference No. - N° de référence du client 1000310497	**Date** 2013-02-22
GETS Reference No. - N° de référence de SEAG PW-$$PV-924-62109	
File No. - N° de dossier pv924.47064-130497	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2013-03-13**	**Time Zone** **Fuseau horaire** Eastern Standard Time EST
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Caron, Anne	**Buyer Id - Id de l'acheteur** pv924
Telephone No. - N° de téléphone (819) 956-3874 ( )	**FAX No. - N° de FAX** (819) 956-3814
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:**	

Instructions: See Herein

Instructions: Voir aux présentes

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

Solicitation Amendment No. 1

This solicitation amendment is raised to post Question and Answers, the minutes of the Bidders' Conference held on 2013-02-13 and to amend Annex A, B and D:

QUESTIONS AND ANSWERS:

Questions 1 to 13 inclusively were received prior to the Bidders' Conference. Responses were provided during Conference:

Question 1: Regarding the scoring: B2, B5 - The indication is [# of "Non-NORM" / 10]. Shouldn't this be [# of "NORM" / 10]
Response 1: B2 - Correct, it should read [# NORM/10]**.** B5 - Correct, it should read [# NORM Identifications/10]

Question 2: B6, B7 - The scoring be based on the isotope identified? Rather than the classification.
Response 2: B6 - Correct, it should read [# Identifications/10 *3]**.** B7 - Correct, it should read [# NORM Identifications and # Identifications/10 * 5]

Question 3: 1.2 - Financial Evaluation - a) prices will be evaluated in Canadian Funds including any applicable Excise Taxes and Canadian Customs Duty (if applicable) and excluding the Goods and Services Tax (GST) or Harmonized Sales Tax (HST) (if applicable). For evaluation purposes, bids received in a foreign currency will be converted to Canadian funds using the appropriate rate of exchange using the rate quoted by the Bank of Canada as being in effect on date of bid closing. b) prices will be evaluated on a FOB Destination. Question: When it says Excluding the HST, does this exclusion require that a HST exception number be supplied to a Canadian manufacturing company or does a Canadian manufacturer charge the HST? Can they explain what is meant by "Excluding" .
Response 3: 1.2 - Financial Evaluation -- It means that the financial evaluation does not include Goods and Services Tax (GST) or Harmonized Sales Tax (HST). PART 3 - BID PREPARATION INSTRUCTIONS Section II: Financial Bid - Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.

Question 4: PART 5 - CERTIFICATIONS - Can they define what is meant by certificates?
Response 4: Details of requirement certifications are provided in Part 5.

Question 5: 6.1 - Basis of Payment - In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit price, as specified in Annex C for a cost of $ (to be filled in only at contract award). Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable. Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work. Question: Does this mean that if the Contacting Authority, meaning the buyer, wants a design change this will be done for no extra charge?
Response 5: No this clause is to ensure no changes are made to equipment proposed. No change will be required from Contracting Authority.

Question 6: B8 - Auto Sensitivity Testing - DID 003- Radiation Detector Performance - The offered components should be able to automatically determine the detector sensitivity. See Point Rated Technical Criteria Matrix. Auto Sensitivity Testing. Question: What is meant by "The offered components should be able to automatically determine the detector sensitivity?"
Response 6: The components should be configured to detect changes in performance (i.e., detection efficiency). This is normally assessed by recording the output signal (or detected count rate) measured

from exposure to a known source, and comparing this over time. Performance changes may result from a number of physical effects, including: panel aging, faulty PMTs, dislodged optical coupling, etc.

Question 7: D. Additional Information INSTRUCTIONS Content - The Bidder must provide a Scanning Operations Report. This report must be formatted accordingly:- Title page (with DID No, Title, Author, Date)- Table of Contents- Page numbers- Figure and Table numbers - Hard copies of all documents must be provided and soft copies (searchable .pdf) are requested. Question: What is meant by "Scanning Operations Report"?
Response 7: Typo: "Scanning Operations Report" should read "Radiation Detection Performance Report"

Question 8: C. ANSI Test Results- The Bidder must provide test results from: - ANSI 42.35 Section 6: Radiological Tests - Question: There should be a strong opposition to this because it completely rules us out. The ANSI N42:35 is based on PVT scintillators not NaI. There is a big difference between Compton Distribution and Photo Peaks. The RFQ even refers to Photo Peaks from Gamma Sources earlier in the document. This should be changed from a MUST to MAY SUBMIT.
Response 8: CBSA is looking to procure "Advanced Radiation Portal Monitors (ARPM)", as described by the characteristics in Annexes A and B. The testing and evaluation of these ARPMs will be done according to the methods described in the RFP, wherever possible leveraging applicable standards for similar technologies. It should be noted that ARPMs being sought are not "Spectroscopic Radiation Portal Monitors (SRPM)" as commonly understood; moreover, they should be thought of as advancements in the tradition Radiation Portal Monitor spectrum.

Question 9: A25 states: The offered components must be readily configured to meet all applicable requirements (radiation detection, environmental, physical, electrical, etc.) of the IEEE standard N42.35-2006, "American National Standard for Evaluation and Application of Radiation Detection Portal Monitors for Use in Homeland Security". Question: ANSI N42.35-2006 DOES NOT REQUIRE any kind of spectral analysis and Nuclide ID. The standard which requires so is ANSI N42.38-2006 Therefore, all points in this bid with requirement to identify the radionuclides are NOT in compliance with N42.35-2006
Response 9: CBSA is looking to procure "Advanced Radiation Portal Monitors (ARPM)", as described by the characteristics in Annexes A and B. The testing and evaluation of these ARPMs will be done according to the methods described in the RFP, wherever possible leveraging applicable standards for similar technologies. There is no requirement for CBSA to use

Question 10: B6. - Source Identification (unmasked) - The offered components should be able to properly identify these isotopes, by spectral analysis: Am-241, Co-57, Ba-133, Cs-137 and Co-60. Question/Comment: By making this point with requirement to IDENTIFY the listed isotopes CBSA does not recognize any prospective bidders with non-spectroscopic monitors (say plastic scintillator based).
Response 10: This is incorrect, and opposite to the intention of this procurement. CBSA has extensive experience with its own scintillator-based portals and through testing has concluded it is feasible to discern the referenced sources from the energy information acquired.

Question 11: B4 - Source Classification (with masked NORM) - The offered components should be able to classify the following sources as "Non-NORM", by spectral analysis, when masked by NORM commodities: Am-241, Co-57, Ba-133, Cs-137 and Co-60 and point B7 Source Identification (masked). The offered components should be able to differentiate and identify the "NORM" and "Non-NORM" when each of the following sources is masked by a NORM commodities: Am-241, Co-57, Ba-133, Cs-137, Co-60. Question: Points B4 and B7 are the same in terms arrangement and outcome. What is the reason to keep two different points?
Response 11: Correct, there is wording error here. B7 is based on identification of both the "NORM" and "Non-NORM" isotopes, and is scored according to the following formula: [# NORM Identifications and # Identifications/10 * 5]

Question 12: The major challenge and critical issue of vehicle scanning is to identify Radon and its progeny influence/contaminations due to weather conditions and the scavenging effect on specific sections of the vehicle - regardless of the location scavenging effect is one of the major causes of false alarms vehicles. Questions: Why the CBSA does not address this issue at all, the NORM Ra-226/Rn-222 issues, but just K-40 and Th-232 ??
Response 12: It is agreed that the background radiation levels fluctuate with weather conditions, and that these can result in false positive (FP) alarms. The "NORM" requirements defined for this procurement are specifically tailored to facilitate the risk assessment of "nuisance" alarms generated by legitimate commodities containing NORM.

Question 13: The main question is a review of the testing requirements for the portal monitor.
Response 13: Specific questions can be asked at Bidders' Conference

Question 14: Annex "A" – Mandatory Specifications – Hardware Requirements (A2) – Signal Processing Electronics – The spec says "The offered components must be configurable to enable data input from a neutron detection module supplied CBSA." Can you please provide us with the specifications and data protocol for this neutron detection module to be supplied by the CBSA?
Response 14: Attached you will find the spec sheet for the Neutron detector.

Question 15: Annex "A" – Mandatory Specifications – Hardware Requirements (A12) – Auto Calibration and (A14) – Radiation Alarms – Is this spec calling for a "spectrometric" portal (radionuclide identification) Can you please advise?
Response 15: As per previous responses: "It should be noted that ARPMs being sought are not "Spectroscopic Radiation Portal Monitors (SRPM)" as commonly understood; moreover, they should be thought of as advancements in the traditional Radiation Portal Monitor spectrum." It is expected that such Advanced portals leverage some degree of energy discrimination to enable classification and identification (if possible) of isotopes present during a scan.

Delete:

ANNEX "A" – MANDATORY SPECIFICATIONS

1.0 Requirements

1.1 Hardware Requirements

Item	Requirement	Description	Reference *(Bidder to complete)*
A5	Electronic Cables and Connectors	The offered components must include all electronics for necessary to: run power to, and communicate with all detector modules.	

1.4 Performance Requirements

Item	Requirement	Description	Reference *(Bidder to complete)*
A18	Gamma Energy Range	The offered components must detect gamma photons between 25 keV and 3 MeV. DOCUMENTATION DELIVERABLE: DID 003-Radiation Detector Performance	

ANNEX "B" –POINT RATED TECHNICAL CRITERIA

2. POINT RATED TECHNICAL CRITERIA MATRIX:

The presence and the performance of options, along with the mandatory requirements, will be considered in evaluating the technical capabilities of the system.

The technical point allocation of the rated criteria is detailed in the matrix below.

Rated Mandatory Requirements		**Systems' Result** *(bidder to complete)*	**Min Pts**	**Max Pts**	**Reference to proposal documentation**	**Indication**
B2 - NORM Classification	Bulk NORM material (K-40)		0	1	DID 003- Radiation Detector Performance	# of "Non-NORM" / 10
	Bulk NORM material (Th-232)		0	1		# of "Non-NORM" / 10
Rated Options		**Systems' Result** *(bidder to complete)*	**Min Pts**	**Max Pts**	**Reference to proposal documentation**	**Indication**
B5 - NORM Identification	Bulk NORM material (K-40)		0	3	DID 003- Radiation Detector Performance	# of "Non-NORM" /10 * 3
	Bulk NORM material (Th-232)		0	3		# of "Non-NORM" /10 * 3
B6 -Source Identification (unmasked)	Am-241		0	3	DID 003- Radiation Detector Performance	# of "Non-NORM" /10 * 3
	Co-57		0	3		# of "Non-NORM" /10 * 3
	Ba-133		0	3		# of "Non-NORM" /10 * 3
	Cs-137		0	3		# of "Non-NORM" /10 * 3
	Co-60		0	3		# of "Non-NORM" /10 * 3
B7 - Source Identification (masked)	Am-241		0	5	DID 003- Radiation Detector Performance	# of "NORM" + "NON-Norm" /10 * 5
	Co-57		0	5		# of "NORM" + "NON-Norm" /10 * 5
	Ba-133		0	5		# of "NORM" + "NON-Norm" /10 * 5
	Cs-137		0	5		# of "NORM" + "NON-Norm" /10 * 5
	Co-60		0	5		# of "NORM" + "NON-Norm" /10 * 5

ANNEX "D" – DATA ITEM DESCRIPTION SHEETS (DID)

TITLE	**System Configuration Report**
DID NUMBER	001
DESCRIPTION / PURPOSE	To provide CBSA with detailed information on the hardware and software configuration of the procured system. To verify compatibility with test portal and business requirements.
SUBMISSION DATE	**Preliminary Report due with Bid Submission** **Full Report due 30 days after contract award**
INSTRUCTIONS - Format	The Bidder must provide a Scanning Operations Report. This report must be formatted accordingly: -Title page (with DID No, Title, Author, Date) -Table of Contents -Page numbers -Figure and Table numbers Hard copies of all documents must be provided and soft copies (searchable .pdf) are requested at the time of submission.
INSTRUCTIONS- Content	The following details what must be provided in the System Configuration - Preliminary Report and - Full Report. At a minimum the respective reports must contain the requested data, and be sectioned according to the following: **Preliminary Report** The following information must be detailed in the System Configuration Preliminary Report: -Detailed information on the detector type and setup geometry -Detailed information on the protection (e.g., IP ratings) of detector modules and front-end electronics -Block diagram of all components housed within the RPM shroud and their connection types **Final Report** **A. Hardware** The vendor must provide: -Detailed schematics of the radiation detection modules and front-end electronics -Detailed wiring schematics -Detailed installation instructions **B. Data Processing and Storage** The vendor must provide: -Detailed flow charts showing all lines of communication, the data transmitted and its formats -Detailed data storage schema -Detailed data on all routines related to radiation measurement, events and alarm generation **C. Data Management and Communication** The vendor must provide: -Remote access protocols **D. Additional Information**

	The Bidder may submit any additional technical information they deem to be pertinent to this DID; such as, but is not limited to: test results, 3rd party reports, configuration options, or other raw data. Note that all information specifically requested in previous sections must be presented completely therein. This section must be formatted in the same manner as the rest of the DID and must be properly referenced in the Table of Contents (any references to additionnal supporting technical documentation (ex. Technical Brochures) must be specific (Document title, page and paragraph number).
DELIVERABLES (Schedule)	**Preliminary Report due with Bid Submission** **Full Report due 30 days after contract award**

TITLE	**Detector Calibration and Sensitivity Testing**
DID NUMBER	002
DESCRIPTION / PURPOSE	To provide CBSA with detailed information relating to the radiation detector calibration, testing and alarming data processes.
SUBMISSION DATE	**Preliminary Report due with Bid Submission** **Full Report due 30 days after contract award**
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	B. Sensitivity Testing -the method for recording raw radiation detection data collected over a selected time period (including all time increments) -instructions on how to access raw recorded radiation detection data -data formats **C. Automatic Calibration** The Bidder must describe in detail: -the method used for auto-calibration -all algorithms used in the auto-calibration routine -how to configure the auto-calibration routine **D. Radiation Alarms** The Bidder must describe in detail: -all alarm types -nominal alarm thresholds -all algorithms used in the alarm generation engine **E. Additional Information** The Bidder may submit any additional technical information they deem to be pertinent to this DID; such as, but is not limited to: test results, 3rd party reports, configuration options, or other raw data. Note that all information specifically requested in previous sections must be presented completely therein. This section must be formatted in the same manner as the rest of the DID and must be properly referenced in the Table of Contents (any references to additional supporting technical documentation (ex. Technical Brochures) must be specific (Document title, page and paragraph number).
DELIVERABLES (Schedule)	**Preliminary Report due with Bid Submission** **Full Report due 30 days after contract award**

TITLE	**Radiation Detection Performance**
DID NUMBER	003
DESCRIPTION / PURPOSE	To provide CBSA with detector performance information for technical evaluation of the systems.
APPLICATION / INTER-RELATIONSHIP	
SUBMISSION DATE	**Full Submission due with Bid Submission**
INSTRUCTIONS - Format	The Bidder must provide a Scanning Operations Report. This report must be formatted accordingly: -Title page (with DID No, Title, Author, Date) -Table of Contents -Page numbers -Figure and Table numbers Hard copies of all documents must be provided and soft copies (searchable .pdf) are requested at the time of submission.
INSTRUCTIONS- Content	The following information must be provided in the Radiation Detector Performance Report. At a minimum the report must contain the following data, and be sectioned according to the following:

Note – unless otherwise defined, sources used in test must be those defined in the RFP having strengths defined by ANSI 42.35 (2006) – Table 4. All pallets must be centered in the container. NORM materials should be kitty litter (K-40 NORM) and clay tiles (Th-232 NORM); if unavailable, similar NORM materials (one K-40 emitter and one Th-232emitter) may be used instead if written approval is granted by CBSA in advance. The same NORM materials and configurations must be used for NORM and Source (masked) classification tests in section B.

A. Sensitivity Testing

The Bidder must provide detailed information (including all raw data) on:
-gross counting sensitivity:

$$Sensitivity = \frac{Source\ [cps] - Bkg\ [cps]}{Activity\ [\mu Ci]}$$

where: *Source* is the average total count rate taken from 3 measurements of 30 second intervals with isotope placed unmasked at mid-height of detector, at a distance 2.5 m from detector face; and, Bkg is the average total background the over 5 measurements of 30 second intervals.

B. Source Classification and Identification

The Bidder must provide detailed information (including all raw data, and system classification levels) for:
-NORM Classification and Identification, by the following test:

1)Passing a container laden with 1 standard pallet of K-40 NORM stacked 5’ high through the portal at a speed of 8 km/h, a total of 10 times.

2)Passing a container laden with 1 standard pallet of Th-232 NORM stacked 5’ high through the portal at a speed of 8 km/h, a total of 10 times.

-Source (unmasked) Classification and Identification, by the following test:

1)Passing a source unmasked (on a stand or rail) through the portal at mid-detector height at a speed of 8 km/h, a total of 10 times. This test is to be repeated for each source listed in the requirements.

-Source (masked) Classification and Identification, by the following test:

1) Passing a container laden with a radioactive source and a standard pallet of K-40 NORM stacked 4’ high through the portal at a speed of 8 km/h, a total of 10 times. This test is to be repeated for each source listed in the requirements.

C. ANSI Test Results

The Bidder must provide test results from:
-ANSI 42.35 Section 6: Radiological Tests

D. Auto-Sensitivity Testing

The Bidder must provide detailed information on:
-Method for Automatic Sensitivity Testing
-Auto-Sensitivity Test Results (Intrinsic Efficiency)

	E. Additional Information The Bidder may submit any additional technical information they deem to be pertinent to this DID; such as, but is not limited to: test results, 3rd party reports, configuration options, or other raw data. Note that all information specifically requested in previous sections must be presented completely therein. This section must be formatted in the same manner as the rest of the DID and must be properly referenced in the Table of Contents (any references to additional supporting technical documentation (ex. Technical Brochures) must be specific (Document title, page and paragraph number).
DELIVERABLES (Schedule)	**Full Submission due with Bid Submission**

Replace with:

ANNEX "A" – MANDATORY SPECIFICATIONS

1.0 Requirements

1.1 Hardware Requirements

Item	Requirement	Description	Reference *(Bidder to complete)*
A5	Electronic Cables and Connectors	The offered components must include all electronics for necessary to: run power to, and communicate with all detector modules, **at distances up to 50 m.**	

1.4 Performance Requirements

Item	Requirement	Description	Reference *(Bidder to complete)*
A18	Gamma Energy Range	The offered components must detect gamma photons between **30** keV and 3 MeV. DOCUMENTATION DELIVERABLE: DID 003-Radiation Detector Performance	

ANNEX "B" –POINT RATED TECHNICAL CRITERIA

2. POINT RATED TECHNICAL CRITERIA MATRIX:

The presence and the performance of options, along with the mandatory requirements, will be considered in evaluating the technical capabilities of the system.

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	Co-57		0	3		# of "**NORM Identifications**" /10 * 3
	Ba-133		0	3		# of "**NORM Identifications**" /10 * 3
	Cs-137		0	3		# of "**NORM Identifications**" /10 * 3
	Co-60		0	3		# of "**NORM Identifications**" /10 * 3
B7 - Source Identification (masked)	Am-241		0	5	DID 003- Radiation Detector Performance	# of "**NORM Identifications**" + "**Identifications**" /10 * 5
	Co-57		0	5		# of "**NORM Identifications**" + "**Identifications**" /10 * 5
	Ba-133		0	5		# of "**NORM Identifications**" + "**Identifications**" /10 * 5
	Cs-137		0	5		# of "**NORM Identifications**" + "**Identifications**" /10 * 5
	Co-60		0	5		# of "**NORM Identifications**" + "**Identifications**" /10 * 5

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TITLE	**Detector Calibration and Sensitivity Testing**
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DELIVERABLES (Schedule)	**Preliminary Report due with Bid Submission** **Full Report due 30 days after contract award**

TITLE	**Radiation Detection Performance**
DID NUMBER	003
DESCRIPTION / PURPOSE	To provide CBSA with detector performance information for technical evaluation of the systems.
APPLICATION / INTER-RELATIONSHIP	
SUBMISSION DATE	**Full Submission due with Bid Submission**
INSTRUCTIONS - Format	The Bidder must provide a **Radiation Detection Performance** Report. This report must be formatted accordingly: -Title page (with DID No, Title, Author, Date) -Table of Contents -Page numbers -Figure and Table numbers Hard copies of all documents must be provided and soft copies (searchable .pdf) are requested at the time of submission.
INSTRUCTIONS- Content	The following information must be provided in the Radiation Detector Performance Report. At a minimum the report must contain the following data, and be sectioned according to the following:

Note – unless otherwise defined, sources used in test must be those defined in the RFP having strengths defined by ANSI 42.35 (2006) – Table 4. All pallets must be centered in the container. NORM materials should be kitty litter (K-40 NORM) and clay tiles (Th-232 NORM); if unavailable, similar NORM materials (one K-40 emitter and one Th-232emitter) may be used instead if written approval is granted by CBSA in advance. The same NORM materials and configurations must be used for NORM and Source (masked) classification tests in section B.

A. Sensitivity Testing

The Bidder must provide detailed information (including all raw data) on:
-gross counting sensitivity:

$$Sensitivity = \frac{Source\ [cps] - Bkg\ [cps]}{Activity\ [\mu Ci]}$$

where: *Source* is the average total count rate taken from 3 measurements of 30 second intervals with isotope placed unmasked at mid-height of detector, at a distance 2.5 m from detector face; and, Bkg is the average total background the over 5 measurements of 30 second intervals.

B. Source Classification and Identification

The Bidder must provide detailed information (including all raw data, and system classification levels) for:
-NORM Classification and Identification, by the following test:

1)Passing a container laden with 1 standard pallet of K-40 NORM stacked 5' high through the portal at a speed of 8 km/h, a total of 10 times.

2)Passing a container laden with 1 standard pallet of Th-232 NORM stacked 5' high through the portal at a speed of 8 km/h, a total of 10 times.

-Source (unmasked) Classification and Identification, by the following test:

1)Passing a source unmasked (on a stand or rail) through the portal at mid-detector height at a speed of 8 km/h, a total of 10 times. This test is to be repeated for each source listed in the requirements.

-Source (masked) Classification and Identification, by the following test:

1) Passing a container laden with a radioactive source and a standard pallet of K-40 NORM stacked 4' high through the portal at a speed of 8 km/h, a total of 10 times. This test is to be repeated for each source listed in the requirements.

C. ANSI Test Results

The Bidder must provide test results from:
-ANSI 42.35 Section 6: Radiological Tests

D. Auto-Sensitivity Testing

The Bidder must provide detailed information on:
-Method for Automatic Sensitivity Testing
-Auto-Sensitivity Test Results (Intrinsic Efficiency)

	E. Additional Information The Bidder may submit any additional technical information they deem to be pertinent to this DID; such as, but is not limited to: test results, 3rd party reports, configuration options, or other raw data. Note that all information specifically requested in previous sections must be presented completely therein. This section must be formatted in the same manner as the rest of the DID and must be properly referenced in the Table of Contents (any references to additional supporting technical documentation (ex. Technical Brochures) must be specific (Document title, page and paragraph number).
DELIVERABLES (Schedule)	**Full Submission due with Bid Submission**

All other terms and conditions remain the same

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BIDDERS' CONFERENCE MINUTES

1. Introductions

- Attendees:
    - Anne Caron – PWGSC
    - Evan Charles – CBSA
    - Kevin Brenker – Symetrica
    - Matthew Dallimore – Symetrica
    - Vald Kondrashov – RadComm Radiation Detection Systems
    - Scott Aikin - RadComm Radiation Detection Systems
    - David Franzese – Radiation Measurement Systems (Rapiscan)
    - René Shink – Smiths Detection

2. Review of RFP requirements & Questions and answers

- The Canada Border Services Agency (CBSA) - Science and Engineering Directorate has a requirement for two (2) Advanced Radiation Portal Monitor (ARPM) to be delivered to Ottawa, ON. The two (2) responsive bids with the highest combined rating of technical merit and price will each be recommended for award of a contract for one (1) ARPM. The Contractors must provide equipment in accordance with Annex "A" and Annex "B". It must be possible to configure and to fit the proposed radiation detection equipment within the existing physical and communications structures of CBSA's test Radiation Portal Monitor (RPM).
- It was explained that bidders **must** submit all required documents to enable the evaluation of the bids.
- PWGSG explained that RFP will be amended to incorporate all changes resulting from the clarifications/questions raised by the bidders and the amendment will be posted on MERX.
- Annex B was reviewed to address the concerns and questions of the bidders.
    - B2 Naturally Occurring Radioactive Materials (NORM) Classification – see questions 1 & 12 in table below. CBSA explained that they are confident that identification is possible on a bulk load of Kitty Litter (K-40) and Clay Tiles (Th-232). The so called "scavenging" effect of build-up of Ra-226 and associated progeny on select areas of containers was discussed. It was noted that this effect has not posed any operational problems for CBSA.
    - Bidders asked if possible to supply information on details of required Kitty Litter and Clay Tiles to be used in testing.
    - CBSA Action: Provide guidance for testing of tiles
    - B4 Source Classification (with masked NORM) - see question 11 in table below
    - B5 Naturally Occurring Radioactive Materials (NORM) Identification - see questions 1 in table below

- B6 Source Identification (unmasked) - see questions 2 & 10 in table below
- B7 Source Identification (masked) - see questions 2 & 11 in table below
- B8 Auto Sensitivity Testing - see question 6 in table below. The intent of this requirement is to measure any change in sensitivity over time.
- B9 Sealed Detector - The intent of this requirement is to ensure detectors are not adversely affected by high humidity and condensation.

- Annex A was reviewed to address the concerns and questions of the bidders.
  - A2 Signal Processing Electronics - The intent of this requirement is to ensure components can be configurable to enable data input from a neutron detection module (supplied by CBSA).
  - A6 Mechanical Fasteners – It was explained that for this procurement there was no requirement for shrouds. The intent is to use existing CBSA shrouds (see Appendix A for details). Bidders asked for further details on footprint and sizing of gamma detector and neutron detector.
  - Action CBSA: provide dimensions of shrouds housing units
  - 1.2 Data Management Requirements - CBSA explained that data will be access via CBSA's network and that it is required that bidders grant CBSA Administrator Rights to all software and data stored or embedded within the offered components.
  - A13 Manual Sensitivity Testing – noted that description is missing.
  - Action CBSA: add wording to clause A13.
  - A14 – bidders requested clarification of the statement "measured radiation exceeds spectral thresholds". CBSA noted that in addition to gross counting (based on all counts across the measurable energy range), it must be possible to generate alarms based on counts generated over specific energy ranges (windowing) and/or by relative changes in the distribution of counts across the detected spectrum.
  - A18 – bidders requested clarification as to the test processes for very low energy (25 – 30 keV) sources; specifically noting the challenge of accurately measuring below 30 keV. CBSA agreed to review requirement for operational impact. Action CBSA: amend the clause to include a minimum detectable energy of 30 keV.

3. Viewing of existing Portal

- CBSA explained that the portals are installed at the ports (not road-side installations) and operated in a stand-alone configuration. Current Concept-of-Operations (ConOps) is as follows:
  - Containers are unloaded from the ship and onto a local bomtruck
  - The bomtruck with the container is then driven through a radiation portal monitor located on the berth-face (within a short timeframe) en-route to the temporary staging location for the container.
  - If an alarm is generated, it is routed via CBSA's instrumentation gateway to the National Targeting Centre in Ottawa.

    - The alarm is then analysed by off-site specialists.
    - If required, secondary inspection units are deployed for examination.
- Questions were raised about the need to incorporate a temporary holder. CBSA reiterated the requirement (A6) for the offered components to include stands/ fasteners to enable mounting of the detectors in a stand-alone configuration.
- Questions were raised about the need to incorporate high speed alarms in requirement. CBSA noted that high-speed alarms were not necessary but reiterated (A22) that the offered components must compute the speed of the scanned object.

4. Closing

- All were thanked for attending and reminded that all further questions or concerns needed to be sent to PWGSC (Anne Caron, anne.caron@tpsgc-pwgsc.gc.ca) prior to closing of the solicitation period as specified in RFP (Part 2, section 3. Enquiries - Bid Solicitation).

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#	Questions	Answers
1	Regarding the scoring: **B2, B5** - The indication is [# of "Non-NORM" / 10]. Shouldn't this be [# of "NORM" / 10]	B2 – Correct, it should read [# NORM/10] B5 – Correct, it should read [# NORM Identifications/10]
2	**B6, B7** - The scoring be based on the isotope identified? Rather than the classification.	B6 – Correct, it should read [# Identifications/10 *3] B7 – Correct, it should read [# NORM Identifications and # Identifications/10 * 5]
3	**1.2 Financial Evaluation** a) prices will be evaluated in Canadian Funds including any applicable Excise Taxes and Canadian Customs Duty (if applicable) and excluding the Goods and Services Tax (GST) or Harmonized Sales Tax (HST) (if applicable). For evaluation purposes, bids received in a foreign currency will be converted to Canadian funds using the appropriate rate of exchange using the rate quoted by the Bank of Canada as being in effect on date of bid closing. b) prices will be evaluated on a FOB Destination. **Question:** When it says Excluding the HST, does this exclusion require that a HST exception number be supplied to a Canadian manufacturing company or does a Canadian manufacturer charge the HST? Can they explain what is meant by "Excluding" .	**1.2 Financial Evaluation** -- It means that the financial evaluation does not include Goods and Services Tax (GST) or Harmonized Sales Tax (HST). **PART 3 - BID PREPARATION INSTRUCTIONS** Section II: Financial Bid Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.
4	**PART 5 – CERTIFICATIONS** Can they define what is meant by certificates?	Details of requirement certifications are provided in Part 5.
5	**6.1 Basis of Payment** In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit price, as specified in Annex C for a cost of $ (to be filled in only at contract award). Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable. Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work. **Question:** Does this mean that if the Contacting Authority, meaning the buyer, wants a design change this will be done for no extra charge?	No this clause is to ensure no changes are made to equipment proposed. No change will be required from Contracting Authority.

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6	**B8 Auto Sensitivity Testing** **DID 003- Radiation Detector Performance** The offered components should be able to automatically determine the detector sensitivity. See Point Rated Technical Criteria Matrix. Auto Sensitivity Testing **Question:** What is meant by "The offered components should be able to automatically determine the detector sensitivity?"	The components should be configured to detect changes in performance (i.e., detection efficiency). This is normally assessed by recording the output signal (or detected count rate) measured from exposure to a known source, and comparing this over time. Performance changes may result from a number of physical effects, including: panel aging, faulty PMTs, dislodged optical coupling, etc.
7	**D. Additional Information INSTRUCTIONS Content** The Bidder must provide a Scanning Operations Report. This report must be formatted accordingly: - Title page (with DID No, Title, Author, Date) - Table of Contents - Page numbers - Figure and Table numbers Hard copies of all documents must be provided and soft copies (searchable .pdf) are requested. **Question:** What is meant by "Scanning Operations Report"?	Typo: "Scanning Operations Report" should read "Radiation Detection Performance Report"
8	**C. ANSI Test Results** The Bidder must provide test results from: - ANSI 42.35 Section 6: Radiological Tests **Question:** There should be a strong opposition to this because it completely rules us out. The ANSI N42:35 is based on PVT scintillators not NaI. There is a big difference between Compton Distribution and Photo Peaks. The RFQ even refers to Photo Peaks from Gamma Sources earlier in the document. This should be changed from a MUST to MAY SUBMIT.	CBSA is looking to procure "Advanced Radiation Portal Monitors (ARPM)", as described by the characteristics in Annexes A and B. The testing and evaluation of these ARPMs will be done according to the methods described in the RFP, wherever possible leveraging applicable standards for similar technologies. It should be noted that ARPMs being sought are not "Spectroscopic Radiation Portal Monitors (SRPM)" as commonly understood; moreover, they should be thought of as advancements in the tradition Radiation Portal Monitor spectrum.
9	**A25** states: The offered components must be readily configured to meet all applicable requirements (radiation detection, environmental, physical, electrical, etc.) of the IEEE standard N42.35-2006, "American National Standard for Evaluation and Application of Radiation Detection Portal Monitors for Use in Homeland Security". **Question:** ANSI N42.35-2006 DOES NOT REQUIRE any kind of spectral analysis and Nuclide ID. The standard which requires so is ANSI N42.38-2006 Therefore, all points in this bid with requirement to identify the radionuclides are NOT in compliance with N42.35-2006	CBSA is looking to procure "Advanced Radiation Portal Monitors (ARPM)", as described by the characteristics in Annexes A and B. The testing and evaluation of these ARPMs will be done according to the methods described in the RFP, wherever possible leveraging applicable standards for similar technologies. There is no requirement for CBSA to use

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10	**B6**. Source Identification (unmasked)The offered components should be able to properly identify these isotopes, by spectral analysis: Am-241 Co-57 Ba-133 Cs-137 Co-60 **Question/Comment:** By making this point with requirement to IDENTIFY the listed isotopes CBSA does not recognize any prospective bidders with non-spectroscopic monitors (say plastic scintillator based).	This is incorrect, and opposite to the intention of this procurement. CBSA has extensive experience with its own scintillator-based portals and through testing has concluded it is feasible to discern the referenced sources from the energy information acquired.
11	**B4** Source Classification (with masked NORM) The offered components should be able to classify the following sources as "Non-NORM", by spectral analysis, when masked by NORM commodities: Am-241 Co-57 Ba-133 Cs-137 Co-60 and point **B7** Source Identification (masked) The offered components should be able to differentiate and identify the "NORM" and "Non-NORM" when each of the following sources is masked by a NORM commodities: Am-241 Co-57 Ba-133 Cs-137 Co-60 **Question:** Points B4 and B7 are the same in terms arrangement and outcome. What is the reason to keep two different points?	Correct, there is wording error here. B7 is based on identification of both the "NORM" and "Non-NORM" isotopes, and is scored according to the following formula: [# NORM Identifications and # Identifications/10 * 5]
12	The major challenge and critical issue of vehicle scanning is to identify Radon and its progeny influence/contaminations due to weather conditions and the scavenging effect on specific sections of the vehicle – regardless of the location scavenging effect is one of the major causes of false alarms vehicles. **Questions:** Why the CBSA does not address this issue at all, the NORM Ra-226/Rn-222 issues, but just **K-40 and Th-232** ??	It is agreed that the background radiation levels fluctuate with weather conditions, and that these can result in false positive (FP) alarms. The "NORM" requirements defined for this procurement are specifically tailored to facilitate the risk assessment of "nuisance" alarms generated by legitamate commodities containing NORM.
13	The main question is a review of the testing requirements for the portal monitor.	