

REQUEST FOR PROPOSAL

To: ALL BIDDERS

CTBTO Ref. No.: 2025-0002/STOMOV

(PLEASE QUOTE ON ALL COMMUNICATIONS)

Tel. No.: +43 (1) 26030-6350

E-mail: procurement@ctbto.org

Attn:

Phone:

Fax:

Email:

Date: 1 Aug 25

Subject: Call-off Contract for the Provision and Disposal of Radioactive
Calibration Sources for IMS Radionuclide Stations

Deadline for Submission: 29 Aug 25

Vienna Local Time: 17:00

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (hereinafter referred to as the 'Commission') hereby invites you to submit a proposal that meets the requirements of the attached documents.

You are kindly requested to complete and return the acknowledgement form by email as soon as possible.

If you have any questions you should contact the email address indicated above.

Yours Sincerely,



Nodira Alimdjanova
OIC, Procurement Services Section

ACKNOWLEDGEMENT FORM

Solicitation No: 2025-0002 Title: Call-off Contract for the Provision and Disposal of Radioactive Calibration Sources for IMS Radionuclide Stations	Closing Date: 29 Aug 25 Vienna Local Time: 17:00
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Procurement Staff: Alexandre Stomov

CTBTO Req. No.: 0010026158

Please complete 'A' or 'B' or 'C'
and Return

WITHIN FIVE (5) DAYS

THE PREPARATORY COMMISSION FOR THE
COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION (CTBTO)

by email to
procurement@ctbto.org

A: We shall submit our proposal	
By: _____ (date)	Company Name: _____ Contact Name: _____ Email/Tel: _____

B: We may submit and will advise	
By: _____ (date)	Company Name: _____ Contact Name: _____ Email/Tel: _____

C: We will not submit a proposal for the following reason(s)	
<input type="checkbox"/> our current workload does not permit us to take on additional work at this time; <input type="checkbox"/> we do not have the required expertise for this specific project; <input type="checkbox"/> insufficient time to prepare a proper submission; <input type="checkbox"/> other (please specify) _____	
Company Name: _____ Contact Name: _____ Email/Tel: _____	

INSTRUCTIONS FOR PREPARATION AND SUBMISSION OF PROPOSALS

1. General

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (the Commission) with its headquarters in Vienna is the International Organization mandated to establish the global verification system foreseen under the Comprehensive Nuclear-Test-Ban Treaty (CTBT), which is the Treaty banning any nuclear weapon test explosion or any other nuclear explosions. The Treaty provides for a global verification regime, including a network of 321 stations worldwide, a communication system, an International Data Centre and on-site inspections to monitor compliance with the Treaty.

This Request for Proposal (RFP) is for the provision of services and supply and delivery of equipment as described in the attached Terms of Reference.

The Proposal shall meet all requirements stated in the Terms of Reference and be submitted in accordance with these Instructions for Preparation and Submission of Proposals. For this project, the Commission is seeking capabilities, which will ensure that the services are delivered and the tasks are accomplished expeditiously and at a reasonable cost.

2. Documents included in this RFP

This RFP consists of the following documents:

- (a) Letter of Invitation
- (b) These Instructions for Preparation and Submission of Proposals, including the Bidder's Statement form, and the following Attachments:
 - Attachment 1: Minimum Content of Technical Proposal and Technical Compliance Matrix
 - Attachment 2: Technical Evaluation Criteria and Method
 - Attachment 3: Procedure for submission of electronic offers in 2 sealed files
- (c) Vendor Profile Form
- (d) Statement of Confirmation
- (e) The Commission's Model Contract and its Annexes A – B;
 - o The Commission's General Conditions of Contract (Annex A), incorporate herein by reference, found at www.ctbto.org under [CTBTO General Conditions of Contract](#)
 - o Terms of Reference (Annex B)

Note: In the event of award, the Proposal will be incorporated as Annex C to the Contract.

3. Amendment of RFP Documents

At any time prior to the closing date for submission of Proposal, the Commission may, for any reason, modify the RFP documents by amendment. The Commission may consider extending the deadline in order to allow adequate time for considering the modifications in the preparation of the Proposal.

4. Language of the Proposal

The Proposal and all correspondence and documents relating to it shall be in English.

5. Format and Submission of the Proposal

The Proposal shall be typed, dated and signed by an official legally authorized to enter into contracts on behalf of your organization. The Proposal shall not contain any interlineation, erasures or overwriting except as necessary to correct errors, in which case such corrections shall be initialled by the authorized person(s) signing the Proposal.

The Proposal shall be submitted electronically according to the attached “PROCEDURE FOR SUBMISSION OF ELECTRONIC OFFERS IN 2 SEALED FILES”.

Proposals sent by regular e-mail unless clearly submitted as electronically sealed bids as indicated above and following the instructions outlined in Attachment 3 will not be considered and may lead to the rejection of the bidder from the procurement process.

The Proposal shall be received not later than the closing date indicated in the Letter of Invitation.

6. Request for Clarifications and Contacting the Commission

The Commission will issue clarifications, if required. Bidders are requested to e-mail any questions pertaining to this RFP as soon as possible after receipt of the solicitation documents, but in any case, no later than 7 business days prior to the Closing Date. No requests for clarifications will be entertained after this time. Questions will only be accepted via e-mail be sent to:

E-mail: procurement@ctbto.org
Subject: Request for Clarifications re RFP No. 2025-0002/STOMOV

The Commission will make all reasonable efforts to issue the clarifications not later than **5** business days prior to the Closing Date.

Except in case of responding to a RFP clarification, no bidder shall contact the Commission on any matter relating to the Proposal after its submission and until the award of the Contract. Any attempt to influence the Commission in its evaluation of the Proposal or the contract award decision may result in the rejection of the Proposal.

7. Eligible Goods and Services

The goods and services (if any) to be rendered under the Contract shall have their origin in the States Signatories of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) which is available in the CTBTO website at www.ctbto.org under [Status of Signatures and Ratifications | CTBTO](#). For purposes of this paragraph, "the origin" means the place from where the materials, goods and/or from which the services are supplied.

8. Type of Contract and Payment

The Commission intends to conclude firm fixed unit prices Call-off Contract based on the attached Model Contract. The terms and conditions of payment for services are described in Clause 12 of the attached Model Contract.

9. Preparation of the Proposal

The Proposal shall contain, but not necessarily be limited to, the information described below.

The Proposal shall be composed of the following separate parts:

- I. Technical Proposal;** and
- II. Financial Proposal**

providing, but not limited to, the following information:

PART I: TECHNICAL PROPOSAL

Please state the reference number and the date of this RFP in the Proposal and any correspondence relating to it.

The Technical Proposal shall follow Attachment 1 Minimum Content of Technical Proposal and Technical Compliance Matrix and contain but not limited to the following information.

Personnel

The Proposal shall state the contact details and address (name, telephone and fax numbers, and e-mail address) of the person/point of contact in your company dealing with this RFP.

Statement of Confirmation and Bidder's Statement form

The attached Statement of Confirmation and Bidder's Statement form shall be duly signed and submitted together with the Proposal.

Description of Services

An explanation of the Bidder's understanding of the services to be provided and an overall preliminary operational plan for the execution of the services by providing a section-by-section response to the Terms of Reference indicating how the Bidder meet or will meet each of the technical requirements.

The Proposal shall also provide any other relevant issue which the bidder would like to bring to the attention of the Commission whether or not having cost implications.

Specifications

The Proposal shall include a detailed description of the items proposed and include relevant technical literature.

The Proposal shall also provide any other relevant issue which the bidder would like to bring to the attention of the Commission whether or not having cost implications. This shall include details of warranties/manufacturer's guaranties in respect to any Equipment item.

Commission's Inputs

A description of the expected inputs/resources to be made available by the Commission and at what stage of the services.

Qualifications

Documentary evidence of your qualifications to provide the Services, which shall establish to the Commission's satisfaction that the bidder has technical capability necessary to perform the Contract and other necessary ongoing services as required.

Personnel

Curriculum vitae of key personnel proposed for this contract, including technical experience to perform the Work.

Please note that it is the bidder's responsibility alone to obtain **work permits or visa or similar** for the personnel proposed to implement this project. The Commission will make no effort nor accept any responsibility for obtaining work permits or visa or similar for the Contractor's personnel.

Use of former Preparatory Commission for the CTBTO ("Commission") employees in the preparation of Quotations:

A bidder must not, in the absence of prior written approval from the Commission, permit a person to contribute to, or participate in, any process relating to the preparation of a Quotation or the procurement process if the person:

- a. At any time during the 12 months immediately preceding the date of issue of the Solicitation was an official, agent, servant or employee of, or otherwise engaged by the Commission;
- b. At any time during the 24 months immediately preceding the date of issue of the Solicitation was an employee of the Commission personally engaged, directly or indirectly, in the definition of the requirements, project or activity to which the Solicitation relates.

Delivery Schedule

The Bidder shall confirm that the Bidder can be on-site within 8 weeks after issuance of an agreed Work Order.

PART II: FINANCIAL PROPOSAL

In the financial Proposal, you are required to define the following:

- (i) The Total Contract Price in EURO (for EU Companies) or US Dollars, exclusive of taxes.
- (ii) A breakdown of the Contract Price, indicating the price for the following items:
The sub-total cost of each category mentioned in the Terms of Reference (TOR), including:
A detailed list of prices as follows:
 1. Firm fixed unit prices for the radioactive sources for the total contract duration (i.e. three (3) years from the contract signature plus two (2) years of optional extension.
 2. Alternatively, bidders may quote two different firm fixed unit prices for the first three years of contract duration and for the following two years of optional extension.
 3. Firm fixed prices for the disposal of the radioactive sources.
 4. Estimated prices for the door-to-door shipment to each site, based on DDU (delivery duty unpaid) or DDP (delivery duty paid), INCOTERMS 2000, which shall include cost for the packing, handling, insurance, shipping, customs clearance, local delivery and import duty/VAT, wherever applicable. The Commission will reimburse the actual expenditure for the shipment, subject to provision by the Contractor of the proof of the actual expenditure for the shipment together with the invoice.

5. The prices shall be based on the estimated quantities required by the Terms of Reference. Indicated quantities of the Commission's requirement over a period of two years are provided in Attachment 1 to the Terms of Reference.
5. Costs agreed with sub-contractors (if any)
6. Overheads (if any)
7. Any other direct costs (insurance, communications, licenses etc. if not already included elsewhere)

In presenting the cost for each item, adequate justification and calculation must be included in the cost Proposal. All individual costs shall be stated in EURO or US Dollars and be computed to constitute the relevant total price.

Note that clear and detailed explanations would enable us to evaluate the Proposal promptly and proceed with fewer requests for clarifications/justifications in a later stage. This is also a factor influencing the decision for Contract award.

Taxes

In principle the Commission is exempt from taxes. Since the arrangement under which such exemption is respected varies from country-to-country, the selected bidder will be informed by the Commission whether tax exemption will occur at source or whether taxes paid by the selected bidder will be reimbursed by the Commission upon submission of the original supporting documentation.

(1) For Austrian companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or be separately identified on the Proposal together with information on the nature of the tax and its method of calculation.

(2) For European Union (EU) Companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or separately identified on the Proposal together with information on the nature of the Tax and its method of calculation. Due to the VAT exemption applicable to the Commission, no VAT will be charged to the Commission by the EEC Suppliers under the Contract (Ref. EU VAT Council Directive 2006/112/EC, Article 151).

(3) For Non-EU Companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or be separately identified on the Proposal together with information on the nature of the tax and its method of calculation. For deliveries to Vienna, Austria, and due to the tax exemption at source applicable to the Commission, no Taxes shall be charged to the Commission under the Contract.

10. Completeness and Correctness of the Proposal

The Commission reserves the right to verify all information furnished by you in the Proposal through a source of its choice. Any inaccurate information so given may lead to the rejection of the Proposal.

11. Validity of the Proposal

The Proposal shall be valid for 90 (ninety) days after the deadline for its submission to the Commission, unless an extension of validity has been requested by the Commission.

12. Correction of Errors

The Commission will check the Proposal for any arithmetic errors. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.

13. Evaluation of the Proposal

- (a) The Commission, based on the evaluation criteria and method given in Attachment 2, will determine the Proposal that ‘most effectively satisfies the technical and operational requirements set out in the solicitation documents’.
- (b) The Commission reserves the right, as it deems appropriate, to award to a single bidder, to award to multiple bidders in any combination or not to award to any of the bidders as a result of this RFP.

14. Negotiations of the Proposal and Award

The Commission reserves the right to request clarifications on the Proposal and to enter into negotiations regarding technical or commercial aspects of the Proposal before awarding the contract under this RFP.

15. Modification and Withdrawal of the Proposal

Bidders may modify or withdraw their Proposals after their submission, provided that written notice of the modification or withdrawal is received by the Commission by the closing date for the submission of the Proposal. The Proposal may not be modified subsequent to the closing date.

16. The Commission’s Right to Reject the Proposal

The Commission reserves the right to accept or reject the Proposal or to annul this procurement process at any time prior to the award of contract without having to inform the bidders of the grounds therefore, without thereby incurring any liability to the bidders.

17. Costs of preparation and submission of the Proposal

Bidders shall bear all the costs associated with the preparation and submission of their Proposal and the Commission will not be responsible or liable for those costs, regardless of the outcome of this RFP.

18. Proprietary Information

All documentation and information contained in this RFP are proprietary to the Commission and shall not be duplicated, used or disclosed -in whole or in part- for any purpose other than to evaluate them and respond to the Commission's request for Proposal or otherwise without prior written agreement of the Commission.

BIDDER'S STATEMENT
PLEASE STATE BELOW & SUBMIT WITH PROPOSAL

Delivery Time:

Shipping weight (kg) and Volume (m³) – if applicable:

List of recommended consumables and spares including prices and details on local availability, if applicable (please tick):

☐ For one year period ☐ For a period of

Warranty period applicable (it shall be for a **minimum of 24 months**, starting from the acceptance of the goods/services by the Commission) – please tick below:

☐ For a two year period ☐ For a period of

Availability of local service in Vienna, Austria (if any):

State country of origin or assembly of all items quoted:

Quantity discount and early payment discount (if any):

Include documentary evidence of qualifications to perform the order, which shall establish to the Commission's satisfaction that the bidder has the financial, technical and production capability necessary to perform the order in its entirety and to provide spare parts and other necessary on-going services as required.

Included in this quotation : **Yes** ☐ **No** ☐

Confirmation that the bidder has reviewed the Commission's Model Contract and the Commission's General Conditions of Contract, and agreed to all terms and conditions.

Yes ☐ **No** ☐

Remarks:

With regards to the software provided with the equipment, state and confirm whether the software licenses are transferable to third parties, i.e. the Commission or the Commission's State Signatories (Member States).

Yes ☐ **No** ☐ **Not applicable** ☐

Remarks:

Name:

Name & Title of Contact Person:

Signature & date:

Attachment 1

Minimum Content of Technical Proposal and Technical Compliance Matrix

Below sets out the **Minimum content of the Proposal (PART I) and the Technical Compliance Matric including all mandatory requirements (PART II) of the Technical Proposal**. Bidders are requested to demonstrate compliance with the requirements and add any further information in support of their Proposal. Please refer to the relevant section of the Terms of Reference for further explanation of the requirements. The information provided will form an integral part of the technical evaluation process.

Part II of this document must be completed and returned as part of the Proposal.

Part I - Minimum content of the Technical Proposal

PART I - Item	Minimum content
1. Executive Summary	Provide an overview of the proposal
2. Experience, Resources and Project Management	
2.1 Corporate Profile and Values	<ul style="list-style-type: none">• Brief background of the company, mission/vision, ownership, size, location, number of personnel by type profile, etc.• Company business structure and its authority to execute all Work under the Contract.• In case the Bidder requires the services of subcontractors, the Proposal shall include:<ul style="list-style-type: none">a) Relationship of the Bidder's business to any subcontractor(s) that will be used.b) Names, addresses, legal status, and qualifications of major sub-contractor(s) proposed by your organization.c) The scope of work and nature of subcontracting.d) Description of subcontractor(s)'s capability• Vendor Profile Form_
2.2 Corporate Experience	<p>The proposal should detail the Bidder's experience in executing work of similar scope and complexity including for standard QC preparation and shipment.</p> <p>Provide references of previous projects performed by the Bidder.</p>
2.3 Quality Management System	Provide a Quality Management System certification/statement which covers the required services
2.4 Environmental Statement	Provide an Environmental Policy or Environmental Statement
3. Meeting the Requirements	

PART I - Item	Minimum content
3.1 Understanding of the ToR	<ul style="list-style-type: none"> • Please describe your understanding of the services that are to be provided under this ToR, detailing key assumptions that impact the Technical Proposal. • Please describe briefly calibration source preparation method and expected results. Describe the equipment used to prepare standards. Explain how the homogeneity is expected to be achieved • Please describe the content of a source certificate and provide an example. • Please describe QC source and expected results • Please describe shipment preparation and how it is expected to acquire licenses, permission, end user statement, import permits, etc • Please describe the source disposal process
4. Model Contract	
	<p>A statement that the Bidder has carefully reviewed the Commission's Model Contract, General Conditions of Contract and Terms of Reference and is in agreement with all terms and conditions. Deviations, if any, shall be clearly indicated and justified in the Financial Proposal in an exception list.</p>

Part II - Technical Compliance Matrix including all mandatory requirements

Technical Compliance Matrix

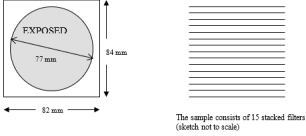
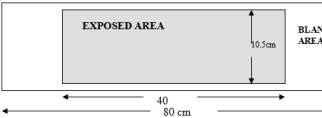
No.		Criterion	Requirement	Bidder Statement		
	TOR SECTION			Yes/ No	Comments (Reference Page/Section of Bid if required)	
1		TERMS OF REFERENCE				
1.1		Calibration sources				
1.1.1	3.1	Calibration energies	Filter calibration cover energies between 59 KeV and 1836 KeV			
1.1.2	3.1	Radionuclides used	^{241}Am , ^{109}Cd , ^{57}Co , ^{139}Ce , ^{113}Sn , ^{137}Cs , ^{54}Mn , ^{88}Y , ^{65}Zn and ^{60}Co .			
1.1.3	3.1	Radionuclides used	For some sources, optionally it can be needed to add ^{210}Pb			
1.1.4	3.1	Radionuclides used	The SPALAX and SPALAX NG calibration source shall contain the following nuclides: ^{241}Am , ^{109}Cd , ^{57}Co , ^{137}Cs , and ^{113}Sn .			
1.1.5	3.1	Radionuclides used	For some stations the calibration standard must also contain ^{139}Ce and/or ^{54}Mn . These cases will be clearly specified in the FRD. The cost of adding these optional nuclides should be included in the proposal			

No.		Criterion	Requirement	Bidder Statement																							
	TOR SECTION			Yes/ No	Comments (Reference Page/Section of Bid if required)																						
1.1.6	3.2.1	Activity filter sources	<p>For filter calibration sources a total activity of approximately 10 kBq is recommended. The activity of relatively short-lived nuclides such as ¹³⁹Ce, ¹¹³Sn and particularly ⁸⁸Y in the mixture should be such that these would still be detectable at arrival and within the 3-year period of use with standard HPGe detectors with reasonable statistics (few %) after 6 hours of acquisition time. The Contractor shall propose the activity of each nuclide in the mixture but here is a reference at arrival..</p> <table><tr><th>Isotope</th><th>Activity (Bq)</th></tr><tr><td>Am-241</td><td>300</td></tr><tr><td>Cd-109</td><td>3000</td></tr><tr><td>Co-57</td><td>150</td></tr><tr><td>Ce-139</td><td>1000</td></tr><tr><td>Sn-113</td><td>2000</td></tr><tr><td>Cs-137</td><td>100</td></tr><tr><td>Mn-54</td><td>150</td></tr><tr><td>Y-88</td><td>3000</td></tr><tr><td>Zn-65</td><td>360</td></tr><tr><td>Co-60</td><td>210</td></tr></table>	Isotope	Activity (Bq)	Am-241	300	Cd-109	3000	Co-57	150	Ce-139	1000	Sn-113	2000	Cs-137	100	Mn-54	150	Y-88	3000	Zn-65	360	Co-60	210		
Isotope	Activity (Bq)																										
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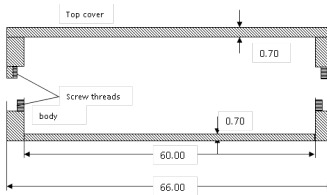
No.		Criterion	Requirement	Bidder Statement																	
	TOR SECTION			Yes/ No	Comments (Reference Page/Section of Bid if required)																
1.1.7	3.2.2	Activity Spalax source	For Spalax activities shall be <table><tr><th>Isotope</th><th>Activity (Bq)</th></tr><tr><td>²⁴¹Am</td><td>800</td></tr><tr><td>¹⁰⁹Cd</td><td>15000</td></tr><tr><td>⁵⁷Co</td><td>1500</td></tr><tr><td>¹³⁹Ce</td><td>5000</td></tr><tr><td>¹¹³Sn</td><td>1900</td></tr><tr><td>¹³⁷Cs</td><td>400</td></tr><tr><td>⁵⁴Mn</td><td>400</td></tr></table>	Isotope	Activity (Bq)	²⁴¹ Am	800	¹⁰⁹ Cd	15000	⁵⁷ Co	1500	¹³⁹ Ce	5000	¹¹³ Sn	1900	¹³⁷ Cs	400	⁵⁴ Mn	400		
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¹¹³ Sn	1900																				
¹³⁷ Cs	400																				
⁵⁴ Mn	400																				
1.1.8	3.2.3	Activity Spalax NG source	For Spalax NG total activity shall be about 25 KBq <table><tr><th>Isotope</th><th>Activity (Bq)</th></tr><tr><td>Am-241</td><td>1174</td></tr><tr><td>Cd-109</td><td>15950</td></tr><tr><td>Co-57</td><td>2145</td></tr><tr><td>Sn-113</td><td>4529</td></tr><tr><td>Cs-137</td><td>3444</td></tr><tr><td>Mn-54</td><td>906</td></tr></table>	Isotope	Activity (Bq)	Am-241	1174	Cd-109	15950	Co-57	2145	Sn-113	4529	Cs-137	3444	Mn-54	906				
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Sn-113	4529																				
Cs-137	3444																				
Mn-54	906																				
1.1.9	3.3	Homogeneity	The radioactive material shall be distributed among the source matrix as evenly as possible. The contractor shall propose a method to check and ensure the homogeneity of the nuclide distribution in the calibration standards. The homogeneity tests shall be performed for each calibration standard and its results shall be provided and included as applicable in the uncertainty budget.																		
1.1.10	3.4	Certificate	The validity of the certificate shall be at least 3 years from the date of delivery. In case source has a working life, for safety reasons this must be stated separately.																		

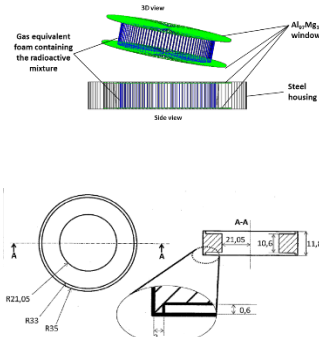
No.		Criterion	Requirement	Bidder Statement																									
	TOR SECTION ION			Yes/ No	Comments (Reference Page/Section of Bid if required)																								
1.1.11	3.5	Certificate spalax	<p>The certificate for SPALAX calibration sources shall contain the certified activities [Bq] and the photon emission rates (gamma/s or X-rays/s) for each of the following spectral energies:</p> <table><tr><th>Isotope</th><th>Spectral Energy (KeV)</th></tr><tr><td>¹⁰⁹Cd</td><td>22.10 (combined Kα1 and Kα2)</td></tr><tr><td>¹³⁷Cs</td><td>32.06 (combined Kα1 and Kα2)</td></tr><tr><td>²⁴¹Am</td><td>59.54</td></tr><tr><td>¹⁰⁹Cd</td><td>88.03</td></tr><tr><td>⁵⁷Co</td><td>122.06</td></tr><tr><td>⁵⁷Co</td><td>136.47</td></tr><tr><td>¹³⁹Ce</td><td>165.86</td></tr><tr><td>¹¹⁵Sn</td><td>255.06</td></tr><tr><td>¹¹⁵Sn</td><td>391.69</td></tr><tr><td>¹³⁷Cs</td><td>661.66</td></tr><tr><td>⁵⁴Mn</td><td>834.84</td></tr></table>	Isotope	Spectral Energy (KeV)	¹⁰⁹ Cd	22.10 (combined Kα1 and Kα2)	¹³⁷ Cs	32.06 (combined Kα1 and Kα2)	²⁴¹ Am	59.54	¹⁰⁹ Cd	88.03	⁵⁷ Co	122.06	⁵⁷ Co	136.47	¹³⁹ Ce	165.86	¹¹⁵ Sn	255.06	¹¹⁵ Sn	391.69	¹³⁷ Cs	661.66	⁵⁴ Mn	834.84		
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¹³⁷ Cs	661.66																												
⁵⁴ Mn	834.84																												
1.1.12	3.6	Uncertainties	All uncertainties shall be reported as standard combined uncertainties (k=1) and the details or factors contributing to the uncertainty budget used shall be provided. Certified activity values should have a relative uncertainty of < 2% (k=1). Any inhomogeneity in the standard shall be quantified, reported and as applicable included in the uncertainty budget																										

No.		Criterion	Requirement	Bidder Statement										
	TOR SECTION			Yes/ No	Comments (Reference Page/Section of Bid if required)									
1.1.13	3.7	Local regulations	When manufacturing a source for a specific country the Contractor shall take into consideration the national and international regulations for radioactive materials regarding activity levels and transportation. The Contractor shall design the individual nuclide activities in a way that shipments can be made as “exempted material” and if it is not possible as “Radioactive Material, excepted package-limited quantity” taking into account the different national regulations. The Commission shall be notified about any restrictions that lead to a change in the nuclide mixture ordered through the FRD.											
1.1.14	3.8	Geometry and material. Compressed filter	<p>The filter type is 3M 5379 BMF20 polypropylene. Filter material will be provided by the PTS. The filter assembly consists of the actual filter and a supporting grid that does not collect particles. Two filter sizes are in use and the names (SW and TGD) corresponds to the type of air sampler in which the filter is used.</p> <table><tr><th>Type</th><th>Filter Size</th><th>Exposed Area</th></tr><tr><td>SW</td><td>46 cm x 57 cm</td><td>42 cm x 51.5 cm</td></tr><tr><td>TGD</td><td>45 cm x 45 cm</td><td>41 cm x 41 cm</td></tr></table>	Type	Filter Size	Exposed Area	SW	46 cm x 57 cm	42 cm x 51.5 cm	TGD	45 cm x 45 cm	41 cm x 41 cm		
Type	Filter Size	Exposed Area												
SW	46 cm x 57 cm	42 cm x 51.5 cm												
TGD	45 cm x 45 cm	41 cm x 41 cm												

No.	TOR SECTION	Criterion	Requirement	Bidder Statement	
				Yes/ No	Comments (Reference Page/Section of Bid if required)
1.1.14	3.8.2	Geometry and material. Cinderella stacked glass fibre filter	<p>The filter is a glass fibre sheet of type Whatman GF/10. Filter material will be provided by the PTS.</p> <p>The filter is cut into 15 rectangular pieces of 82 mm x 84 mm and placed in a PVC sample container. The exposed area is a circle with a diameter of 77 mm, centred on each piece.</p> 		
1.1.15	3.8.3	Geometry and material. Band filter, RASA	<p>The filter sample is a segment of a continuous filter band. This type of filter is used in the RASA automatic system. The filter type is: 3M 5379 BMF20 or Superior Felt MB40-AP-4.92X262 (Polypropylene with scrim).</p> <p>Filter material will be provided by the PTS.</p> <p>The exposed area is rectangular with dimensions of 40 cm x 10.5 cm (Figure below). One sample consists of six layers of filters that are stacked and wrapped in Mylar. For measurement, the sample is wrapped around the detector.</p> 		

1.1.16	3.8.4	Geometry and material. Spalax	<p>The container is typically made of aluminium (or copper with carbon-epoxy-window). The sample container is placed on top of the detector for the gamma acquisition.</p> <p>Technical Specification for aluminium container (measures in mm):</p> <ul style="list-style-type: none"> - Material: aluminum - Cylindrical shape: inner diameter 60 mm; outer diameter: 66mm - Inner Height: 9 mm - Total Outer Height: $(9 + 0.7 + 0.7) = 10.4$ mm - Window: thickness 0.7 mm - Top cover thickness: 0.7 mm - Top cover is mounted and locked on body by screw thread. <p>The sample container will be provided by the Commission. The container will be provided in single parts (cylindrical body and top cover or cylindrical body with window and top cover) for placement of the matrix inside. After placement of the matrix the sample container shall be closed and sealed so that the calibration</p>		
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No.	TOR SECTION	Criterion	Requirement	Bidder Statement	
				Yes/ No	Comments (Reference Page/Section of Bid if required)
			<p>standard can be classified as a sealed source.</p> <p>The radionuclides are to be deposited homogenously in a gas simulated matrix with a density of approximately: 0.015 g/cm³.</p>  <p>The diagram shows a cross-section of a container. The top cover has a thickness of 0.70. The body has a thickness of 0.70. The inner diameter is 60.00, and the outer diameter is 66.00. Labels include 'Top cover', 'Screw threads', and 'body'.</p>		

No.	TOR SECTION ION	Criterion	Requirement	Bidder Statement	
				Yes/ No	Comments (Reference Page/Section of Bid if required)
1.1.16	3.8.5	Geometry and material. Spalax NG	<p>Similar to Spalax but with following geometry</p>  <p>Material : stainless steel 316L</p> <p>The windows provided by PTS:</p> <ul style="list-style-type: none"> - Material: Al97Mg3 - Condition: laminated - Diameter: 66,0 mm +/- 0,5mm - Thickness: 550 µm <p>The foam:</p> <p>Two foams measuring 42mm (diameter) x 3mm (thickness) will be placed on either side of the multigamma source to ensure its support. These foams will have a density of 15 kg/m3.</p> <p>The glue:</p> <p>The glue will be chosen by the supplier.</p>		
1.2		QC sources			

No.		Criterion	Requirement	Bidder Statement	
	TOR SECTION			Yes/ No	Comments (Reference Page/Section of Bid if required)
1.2.1	4.1	Basic QC source	<p>The basic QC-source shall be a sealed point source. It shall contain the following nuclides:</p> <p style="text-align: center;">^{152}Eu, ^{137}Cs and ^{60}Co.</p> <p>The activity of the nuclides in the QC-source shall be chosen so that a 15 minute acquisition of the QC source placed on the end-cap of a 50% relative efficiency HPGe detector, produces a spectrum with main peak net areas of approximately 10000 counts. The QC source shall be put into a PVC sample container (provided by the Commission).</p>		

No.		Criterion	Requirement	Bidder Statement							
	TOR SECTION ION			Yes/ No	Comments (Reference Page/Section of Bid if required)						
1.2.2	4.2	RASA QC Source	<p>The RASA automatic system uses a QC source which is placed inside an aluminium rod. Every day at the same time, the rod is lifted from its enclosure and kept in the upper position facing the detector for a 15 minute acquisition, after which it is returned to its storage position.</p> <p>The Contractor shall insert the QC source inside the aluminium rod and seal it. The rods will be provided by the Commission.</p> <p>The composition and activity shall be the same as for the Basic QC source.</p>								
1.2.3	4.3.1	Spalax QC source, low activity	<p>The “QC-source with low activity for permanent acquisition” shall be a sealed point source. It shall contain the following nuclides with activity levels as indicated:</p> <table><tr><th>Isotope</th><th>Activity (Bq)</th></tr><tr><td>Am-241</td><td>~ 0.5</td></tr><tr><td>Co-57</td><td>~ 0.5</td></tr></table>	Isotope	Activity (Bq)	Am-241	~ 0.5	Co-57	~ 0.5		
Isotope	Activity (Bq)										
Am-241	~ 0.5										
Co-57	~ 0.5										

No.		Criterion	Requirement	Bidder Statement		
	TOR SECTION			Yes/ No	Comments (Reference Page/Section of Bid if required)	
1.2.4	4.3.2	Spalax QC source, high activity	The “QC source with high activity for permanent acquisition” shall be a sealed point source. It shall contain the following nuclides with activity levels as indicated:			
			Isotope			Activity (Bq)
			Am-241			~ 4.5
			Co-57			~ 1.5
1.2.5	4.3.3	Spalax QC, source in a rod	The SPALAX QC source on a rod shall be a sealed source mounted on the top of an aluminium rod. The rod is lifted manually into the lead shield for a 15 minute gamma acquisition, after which it is removed from the lead shield. The contractor shall mount the QC source on the aluminium rod and seal it. The rods will be provided by the Commission. The source shall contain the following nuclides with activity levels as indicated:			
			Isotope			Activity (Bq)
			Pb-210			~5000
			Am-241			~ 500
			Cs-137			~ 1000
1.3		OTHER				

No.	TOR SECTION	Criterion	Requirement	Bidder Statement	
				Yes/ No	Comments (Reference Page/Section of Bid if required)
1.3.1	5	Shipment of sources	<p>(a) Ship the sources to the final destination using a door-to-door service and following international and national regulations for transportation and import of radioactive material into the destination country specified by the FRD.</p> <p>(b) Undertake any action related to these regulations that are necessary for the delivery of the radioactive sources to the end destination. The contractor shall acquire all necessary licences, permissions, end-user statements, import permits and other paperwork where necessary with a view to minimising shipment delays. When applicable, the contractor shall advise the recipient about the formalities to acquire permissions to receive radioactive sources.</p>		
1.3.2	5	Shipment of source. Damage or lost responsibility	The Contractor shall be responsible for any damage or loss of any shipment before reaching each specified destination.		
1.3.3	5	Shipment of source. Delivery time	The delivery time to the recipient (understood as the time between the receipt of the FRD and the arrival of the calibration standard at the recipient specified in the FRD), shall not exceed 90 days.		

No.	TOR SECTION	Criterion	Requirement	Bidder Statement	
				Yes/ No	Comments (Reference Page/Section of Bid if required)
1.3.4	5	Shipment of source. Documentation	<p>The Contractor shall ship each calibration standard together with its official certificate and</p> <p>The Contractor shall deliver basic handling and safety instructions with each calibration standard.</p>		
1.3.5	6	Disposal of sources	<p>Once the life time of the source has elapsed and upon request of the Commission, the Contractor shall:</p> <p>(a) Organise the transportation of the sources to the disposal location;</p> <p>(b) Dispose the source appropriately following national and international regulations.</p>		
1.3.6	7	Documentation	<p>Deliver a certificate with each calibration standard</p> <p>Submit a Delivery Status Report every six months, indicating: FRD No., recipient institution, type of source, quantity, contractor's source ID and dispatch date.</p>		

BIDDER'S NAME: _____

SIGNATURE and SEAL: _____

NAME AND POSITION: _____

DATE: _____

PLACE: _____

Attachment 2 - Technical Evaluation Criteria and Method

1. Technical Evaluation

The technical evaluation process will be done in two steps:

Step 1: Technical proposals will first be evaluated against the mandatory requirements outlined in the Sheet “Table 1 - Evaluation Criteria”, on a PASS/FAIL basis. Compliance with all mandatory requirements is required in order to pass Step 1 of the technical evaluation and to be further considered for Step 2 of the evaluation process.

Step 2: The technical proposals that have passed Step1 of the technical evaluation process, will be evaluated against the weighted criteria set forth in the Sheet “Table 1 - Evaluation Criteria”.

In order to pass this stage, bidders must obtain **a minimum score of 237** and in accordance with the scoring indicated in the Sheet “Table 2 – Scoring”. Failing one of the criteria in Step 2 will not result in the entire technical proposal failing provided that the technical proposal obtains a minimum score of 237.

2. Financial Evaluation and Commercial Evaluation

Once the technical evaluation is finalized, the financial offers of the technically compliant bidders will be evaluated in accordance with the formula given below:

$X = \text{Max Available Points} * Y/Z$

Legend:

X= points to be assigned to the offer being evaluated

Y= price of the lowest priced, technically compliant offer

Z= price of the offer being evaluated

The weight of the technical and financial components is **70%** and **30%** respectively, subject to contractual acceptability.

The Contract will be awarded to the bidder who receives the highest combined score resulting from the technical and financial evaluations, **subject to contractual acceptability**.

Technical Evaluation Criteria and Method

STEP1: MANDATORY REQUIREMENTS (PASS/FAIL)

Compliance with all mandatory requirements is required in order to pass stage 1 of the technical evaluation and to be further considered for stage 2 of the evaluation process

No.	Ref No. in TOR	Technical Evaluation: PASS/FAIL Criteria	Points and Scoring
			PASS/FAIL
1	3	The Bidder shall provide sources with specified geometry and isotopes for Particle, Spalax, Spalax NG, Cinderella, Rasa	PASS/FAIL
2	3.4	The Bidder shall provide calibration certificate and documentation. Calibration need to be traceable to primary standard	PASS/FAIL
3	4	The bidder shall provide QC sources (Basic, Rasa, Spalax with low activity, Spalax with high activity, Spalax QC in a rod)	PASS/FAIL
5	5	The Bidder shall provide shipment of the sources to the destinations stated in the TOR	PASS/FAIL
4	6	The Bidder shall confirm in the proposal they will provide on demand disposal service of unused sources	PASS/FAIL

STEP2: WEIGHTED CRITERIA

Only bidders who pass all above criteria will be considered for stage 2 of the technical evaluation process.

Failing one of the criteria in Step 2 will not result in the entire technical proposal failing provided that the technical proposal obtains a minimum score of 205.

No.	Ref No. in TOR	Technical Evaluation: Weighted Criteria	Points and Scoring		
			Max Points	Weight/Factor	Max Score
1	3	Description on source preparation meeting criteria as mentioned in TOR: Source classified as sealed source Source classified as exempted (instead of "Radioactive material, excepted package") Source activities are as explained in TOR There is a method of preparation of calibration standards, based on spike filter material and does not allow cross contamination. There is method to ensure homogeneity and is based on existing standards.	5	10	50
2	2	Number of years of experience preparing similar type of standards (minimum 5 years).	5	10	50
3	3	Technical capability based on the equipment description provided by bidder - reference to TOR section 3.8	5	7	35
4	4	Bidder quality management system. Accreditation and standards. Quality accreditations (ISO9001, ISO17025 or equivalent)	5	9	45
5	4	Certificate has all the relevant data (isotopes, uncertainties, gamma emissions or activity).	5	10	50
6	4	Certificate has a digital file in CTBTO form	5	5	25
7	5	Shipment meeting technical criteria: Door to door Meeting delivery local regulations Responsible of damage Delivery time less than 90 days Deliver safety instructions with shipment	5	10	50
8	5	Number of years of experience in shipment with radioactive material (minimum 5 years)	5	8	40
9	6	Source disposal meeting technical criteria: There is a license or permission following national standards	5	10	50
TOTAL - Technical Evaluation					395

TABLE 2 - Scoring

Points	Explanation - to be considered when assigning the points
0	Unsatisfactory - Response incomplete, inadequate and/or non-responsive to the criterion. Bidder does not clearly understand the criterion.
1 - 2	Weak - Does not meet the minimum technical, functional, or performance related criterion.
3	Good - Meets the minimum requirements of the criterion.
4	Very good - Exceeds the minimum requirements of the criterion in some areas.
5	Excellent - Exceeds the minimum requirements of the criterion in all areas.

“Procedure for Submission of Electronic Offers in 2 Sealed Files”

The Commission invites you to submit your sealed offer (Bid, or Proposal) in response to the solicitation forming part of this request.

Please be sure to follow the instructions below very carefully, so that the documents you submit are encrypted, and cannot be opened without an encryption key (password). If the documents are not encrypted, they will not be accepted as part of this tender process.

CRITICAL INFORMATION:

Create separate zip files for the technical offer and the financial offer (labelling them clearly in the title) with different encryption keys. Instructions for how to do this are provided below.

Step 1: You provide the encryption key (password) for the *Technical Offer only* (in accordance with the below instructions)!

Step 2: After the Commission has performed the evaluation of the Technical Offer, if your Technical Offer is considered to be acceptable, the Commission will request the encryption key (password) for the Financial Offer you have already submitted by the tender Deadline.

Should you have any questions, please send an email to procurement@ctbto.org.

We recommend that you leave yourself plenty of time to complete the below process (including getting any necessary assistance from the Commission), as late offers will not be accepted.

INSTRUCTIONS:

1. In a **WINDOWS** environment, one way of meeting the requirements is as follows.

We recommend using the open-source, free software **7-zip**, but if you are comfortable with other tools, the result should be the same, as long as you can apply encryption to the archive. In the below, we'll use 7-zip as an example. (You can download the 7-zip code for Windows at: 7-zip.org)

2. In **LINUX** environment, you can use, for instance, “sha1sum” on the command line.

Creating the archives for submission

Regardless of whether the offer is a single file, or a collection of files, the files are easier to manage if delivered as a single, compressed file. Compressing the archive is a common way to meet size limitations in email systems.

As an example of how to submit your offer in the required format: assuming you are supplier “SOFTCOMP” and have the following files related to the offer for “RFP 2020-0010/EDWALD”. (*You will need to replace these elements with the real information for your actual offer in line with the relevant Instructions for Preparation and Submission of Proposals/Bids.*) Assuming further that you have installed the 7-zip software on the Windows system you are using.

We will only go through the creation of the Technical Offer (Proposal/Bid) component; the Financial Offer (Proposal/Bid) component is similar.

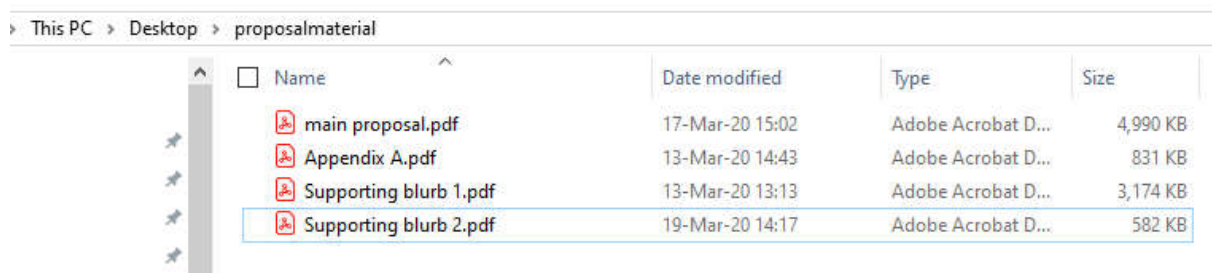


Figure 1 An example set of files to be submitted

Select the four files and right-click; a Dialog box pops up, with one of the options being “7-ZIP >”. Hover your cursor over the “>” part and a few more options appear, select the “Add to archive” option.

Another dialog box pops up (see ‘Figure 2, Creating an Archive’, next page):

Using the standard Windows methods, select a suitable location for the archive (if you don’t change it, the archive gets created right where the selected files are), and give it a name in the form of: “SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID”, of course replacing all the elements with the true values for the offer in question: the actual company indicator, and the actual RFP/ITB identification string. Note that it is not possible to put a slash “/” in the file name, and therefore put a dash “-” instead. Leave the file extension “.zip” as is.

Leave all the other settings as is, except: **add a password to the encryption** (see figure 2 below). This is done by typing the same password (of your choosing) twice in the two text fields in the lower right hand corner.

Make a note of this password. You must choose different passwords for the two zip archives, that is, the Technical and the Financial Proposal/Bid.

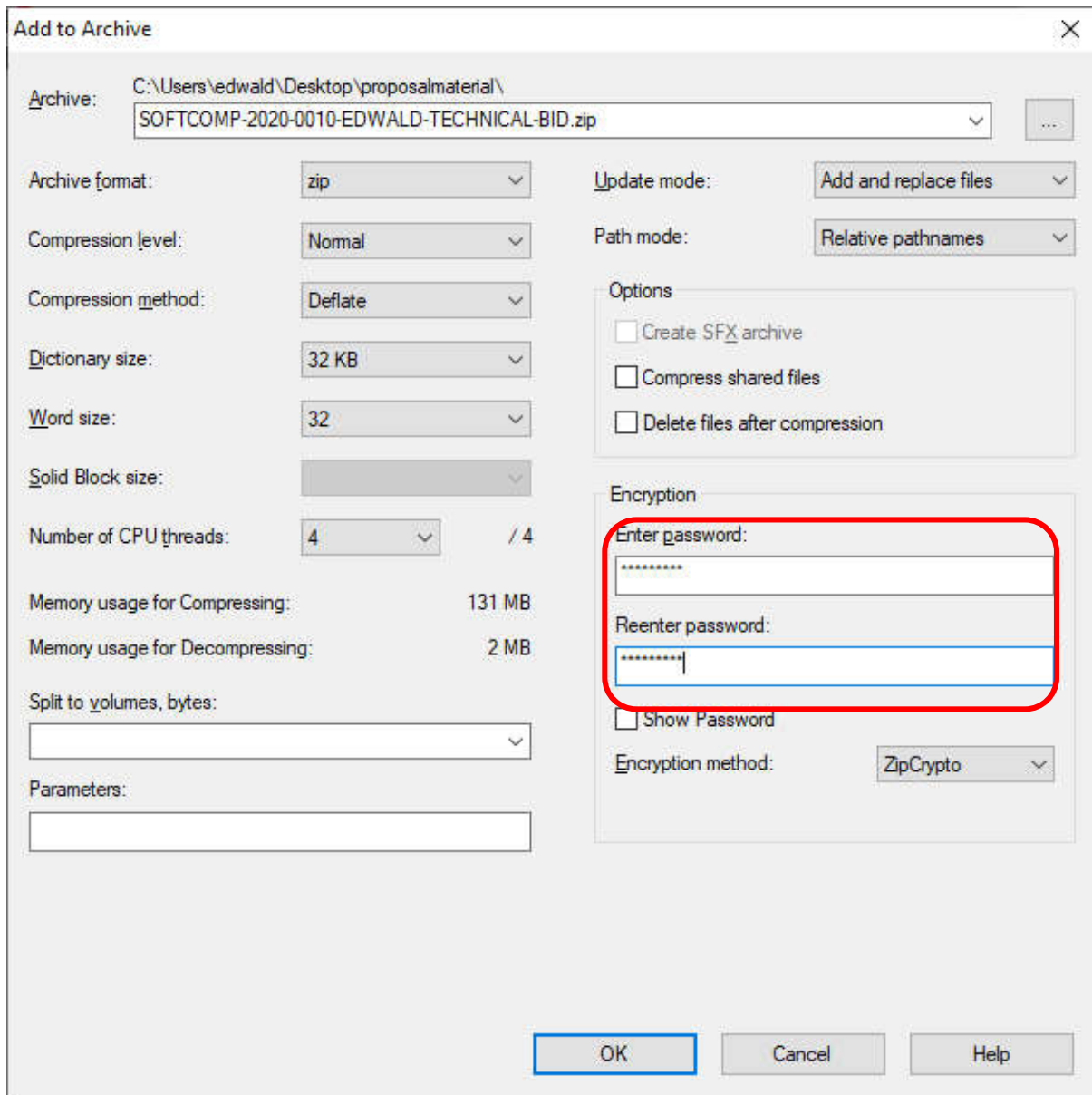


Figure 2 Creating an Archive

Now, we seek the “SHA1 Hash”, and electronic fingerprint of the archive you have just created. The hash is a string calculated from your file(s) and can be used to guarantee that the file has not been modified since you created it. Any change to the file will result in a different hash value.

There are many ways of calculating this; two common options are described below.

If the appropriate functionality is available in your Windows environment: Select the compressed archive in the Windows file manager, (eg. SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID.zip) and right click. One of the options to select is “CRC SHA >”. Hovering over the “ >” brings a few more options to light, select the **SHA-1** option. A smaller dialog pops up: (see Figure 3, *SHA1* below). Clicking Ctrl-C grabs the contents of this box. You can close the box after copying the contents. (You can paste the contents into a mail message, for instance.)



Figure 3 *SHA1*

If this CRC SHA function is not available by ‘right-click’ on your Windows version, you can also do this from ‘the command line’, a slightly more complicated way. Open a CMD window (see sidebar below), move to the folder where your archive is, and execute the command: `“certutil -hashfile SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID.zip sha1”` where you obviously replace the name of the file with your real file name. The output of this command is the SHA1 “hash”. You can copy-and-paste the string for use in the email (below).

Sidebar: How to open a CMD window in Windows:

The way to open a Command window (or ‘terminal’) depends on the version of Windows you have. The different methods are very clearly described in the following article, but a quick internet search will find multiple descriptions.

<https://www.lifewire.com/how-to-open-command-prompt-2618089>

Finally,

1. Create a new email, Subject: example- “SOFTCOMP-2020-0010-EDWALD”. Add the two compressed archives, that is, the Technical Offer and the Financial Offer archives as attachments. The text of the email should contain the SHA1 information for both archives.
SEND THIS TO: sealed_bids@ctbto.org (note that there is an underscore “_” between “sealed” and “bids”). (Should the email become larger than your mail system allows, you can

try sending the two archives in separate emails. Take care to include the right SHA1 information with each file.)

2. Create a new email, Subject: example- "SOFTCOMP-2020-2010-EDWALD-Technical Offer" the contents of which must contain the Encryption Key for the Technical Offer (the password you used when creating the Technical Offer). (Again, note the underscore between 'bid' and 'keys'.)

SEND THIS TO: bid_keys@ctbto.org

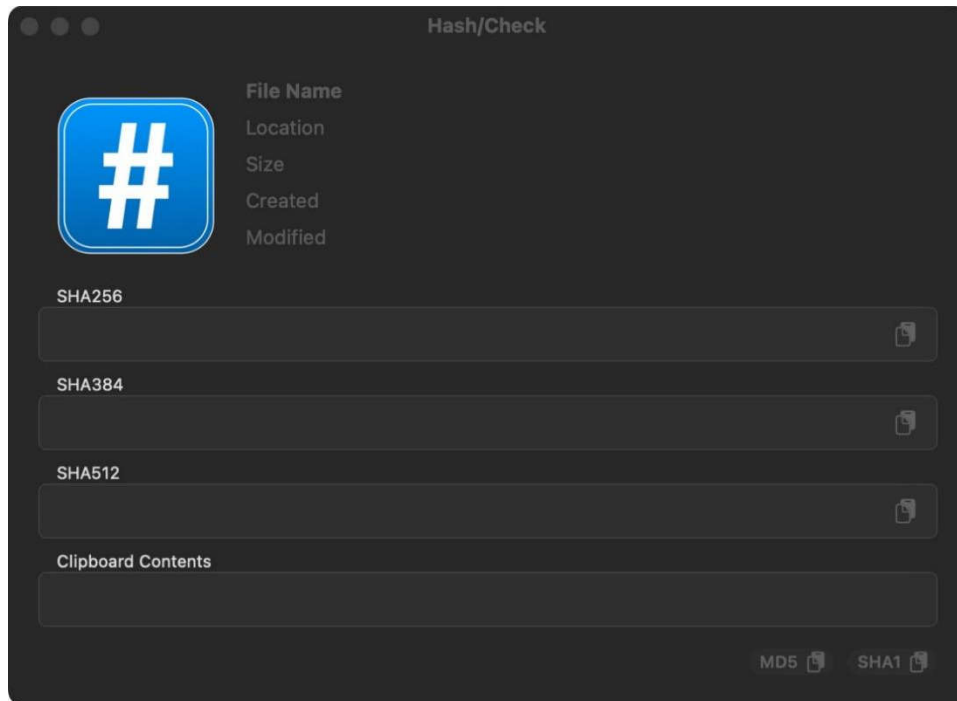
IMPORTANT NOTE: As stated above, only send the Encryption Key for the Technical Offer to the bid_keys@ctbto.org mailbox when sending your Technical and Financial Offer to the sealed_bids@ctbto.org mailbox. **You shall only send the Encryption Key for the Financial Offer to the Commission if and when informed by the Commission that your Technical Offer had been evaluated as "technically acceptable".**

The Financial Offer Encryption Key will need to be provided by you to the same e-mail (bid_keys@ctbto.org) within 48 hours of the Commission's request, clearly marked in Subject: Encryption Key for (example): "SOFTCOMP 2020-2010 EDWALD-Financial Offer". If your Offer is not considered "technically acceptable", the Commission will not request an Encryption Key for your Financial Offer, and it will remain unopened.

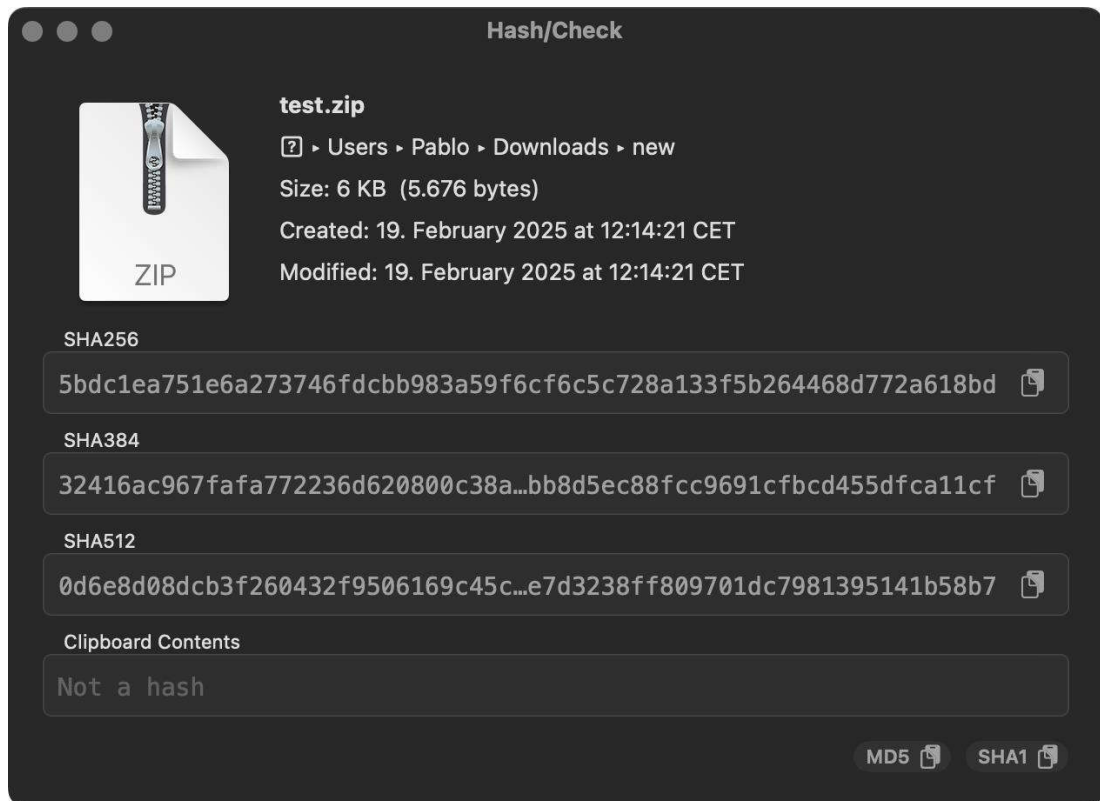
As mentioned above, should you have questions or difficulties, please send an e-mail to procurement@ctbto.org.

For MAC users:

1. Please download Hash/Check app:
<https://apps.apple.com/at/app/hash-check/id1550525767?l=en-GB&mt=12>
2. It is very simple to use. After installing, just open the app and click on “File” to open the zip file you want to inspect.

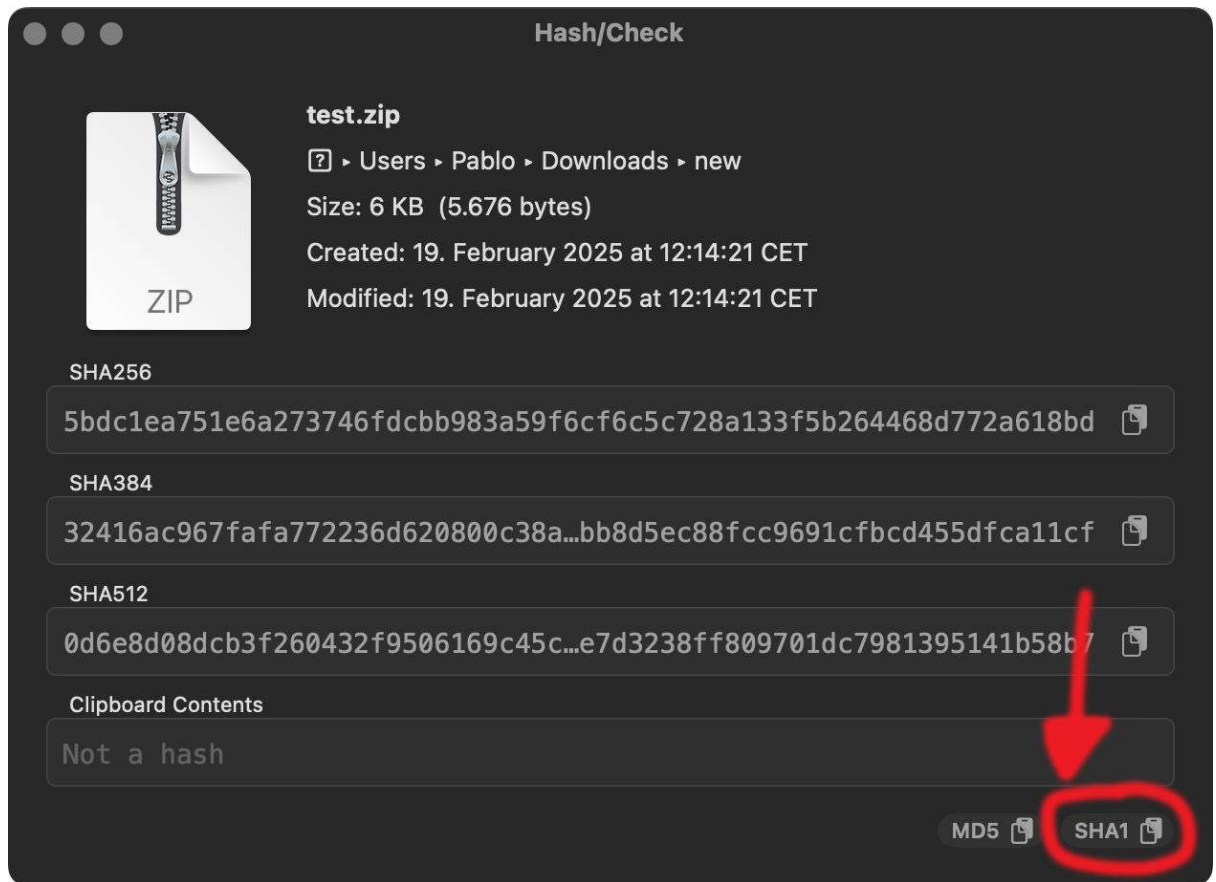


3. Please use your submitted technical and financial proposals

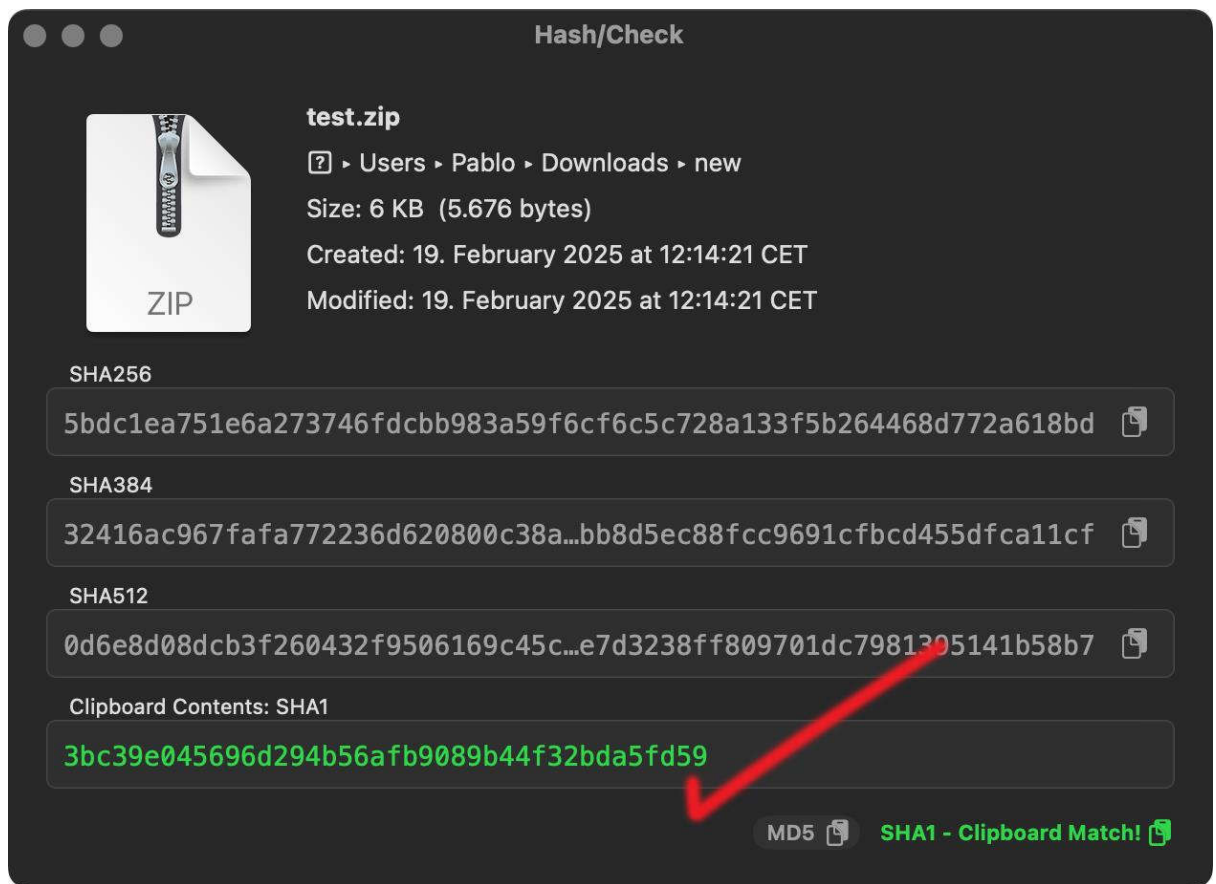


4. And it automatically creates several different hash values ... --- But the one we need SHA1 is not there ...

So you press on the little SHA1 icon on the bottom right ...



5. The SHA1 hash is calculated and copied to the clipboard automatically for further use.



-----OR-----

Another alternative would be to use the terminal and the command: shasum /path/to/file
Here is a little tutorial on how to use it. It is strait forward and simple to use. Please see
attached the instructions as a pdf as well.

<https://osxdaily.com/2012/02/05/check-sha1-checksum-in-mac-os-x/>

Finally,

1. Create a new email, Subject: example- "SOFTCOMP-2020-0010-EDWALD". Add the two compressed archives, that is, the Technical Offer and the Financial Offer archives as attachments. The text of the email should contain the SHA1 information for both archives. **SEND THIS TO:** sealed_bids@ctbto.org (note that there is an underscore "_" between "sealed" and "bids"). (Should the email become larger than your mail system allows, you can try sending the two archives in separate emails. Take care to include the right SHA1 information with each file.)

2. Create a new email, Subject: example- "SOFTCOMP-2020-2010-EDWALD-Technical Offer" the contents of which must contain the Encryption Key for the Technical Offer (the password you used when creating the Technical Offer). (Again, note the underscore between 'bid' and 'keys'.)

SEND THIS TO: bid_keys@ctbto.org

IMPORTANT NOTE: As stated above, only send the Encryption Key for the Technical Offer to the bid_keys@ctbto.org mailbox when sending your Technical and Financial Offer to the sealed_bids@ctbto.org mailbox. **You shall only send the Encryption Key for the Financial Offer to the Commission if and when informed by the Commission that your Technical Offer had been evaluated as "technically acceptable".**

The Financial Offer Encryption Key will need to be provided by you to the same e-mail (bid_keys@ctbto.org) within 48 hours of the Commission's request, clearly marked in Subject: Encryption Key for (example): "SOFTCOMP 2020-2010 EDWALD-Financial Offer". If your Offer is not considered "technically acceptable", the Commission will not request an Encryption Key for your Financial Offer, and it will remain unopened.

As mentioned above, should you have questions or difficulties, please send an e-mail to procurement@ctbto.org.

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VENDOR PROFILE FORM (VPF) – FOR PRODUCTS/SERVICES/WORK

1. Name of Company:		
2. Street Address:	3. Telephone:	
P.O. Box: City:	4. E-Mail:	
Zip Code: Country:	5. Website:	
6. Contact Person: Title:		
7. Legal Status (e.g. Partnership, Private Limited Company, Government Institution)		
8. Year Established:	9. Number of Employees:	
10. Gross Corporate Annual Turnover (US\$m)*:	11. Annual Export Turnover (US\$m)*:	
12. Type of Business/Products: Manufacturer <input type="checkbox"/> Sole Agent <input type="checkbox"/> Supplier <input type="checkbox"/> Other <input type="checkbox"/> (please explain)		
13. Type of Business/Services/Work: Engineering <input type="checkbox"/> Civil Work <input type="checkbox"/> Governmental Institution <input type="checkbox"/> Other <input type="checkbox"/> (please explain)		
14. References (your main customers, country, year and technical field of products, services or work): **		
15. Previous Supply Contracts with United Nations Organizations (over the last 3 years)** <div style="display: flex; justify-content: space-between; margin-bottom: 10px;"> Organization: Value in US\$ Equivalent: Year: </div> <div style="display: flex; justify-content: space-between;"> Organization: Value in US\$ Equivalent: Year: </div>		
16. Summary of any changes in your company's ownership during the last 5 years:		

* Please provide a copy of the most recent audited annual report and accounts. Note: Export includes services or work performed abroad or for foreign clients.
 ** Please provide supplementary documentation on these items.

17. List of Products/Services/Work offered:

Product/Service/Work #	Product/Service/Work Description

18. This section shall be **signed and stamped** by an official legally authorized to enter into contracts on behalf of your organization:

Name:

Title:

Signature:

Date:

Bank Details

Bank Name:

Bank Address:

Exact Account Holder Name:

Beneficiary Details

Beneficiary Name:

(exactly as stated on bank statements)

IBAN:

(if applicable)

Account number:

SWIFT/BIC:

ABA/Sort Code:

Additional Details (if applicable)

Correspondent bank:

Correspondent account number:

Correspondent SWIFT/BIC:

Tax Identification Number:

FOR CTBTO USE ONLY

Evaluated By:

Initials

Date:

Updated By:

Initials

Date:

Remarks:

* Please provide a copy of the most recent audited annual report and accounts. Note: Export includes services or work performed abroad or for foreign clients.

** Please provide supplementary documentation on these items.

STATEMENT OF CONFIRMATION

On behalf of (name of firm or organization): _____, I hereby attest and confirm that:

- a) The firm/organization possesses the legal status and capacity to enter into legally binding contracts with the Commission for the supply of equipment, supplies, services or work.
- b) The firm/organization is not insolvent, in receivership, bankrupt or being wound up, and not under administration by a court or a judicial officer, and that it is not subject to the suspension of its business or legal proceedings for any of the foregoing reasons.
- c) The firm/organization has fulfilled all its obligations to pay taxes and social security contributions.
- d) The firm/organization has not, and that its directors and officers have not, within the last five years been convicted of any criminal offense related to professional conduct or the making of false statements or misrepresentations as to their capacity or qualifications to enter into a procurement or supply contract.
- e) The Commission, in the event that any of the foregoing should occur at a later time, will be duly informed thereof, and in any event, will have the right to disqualify the firm/organization from any further participation in procurement proceedings.
- f) The firm/organization did not/will not attempt to influence any other bidder, organization, partnership or corporation to either submit or not submit a proposal/bid/quotation.
- g) The firm/organization will not, in the absence of a written approval from the Commission, permit a person to contribute to, or participate in, any process relating to the preparation of a Quotation/Bid/ Proposal or the procurement process if the person:
 - a. at any time during the 12 months immediately preceding the date of issue of the Solicitation was an official, agent, servant or employee of, or otherwise engaged by the Commission;
 - b. at any time during the 24 months immediately preceding the date of issue of the Solicitation was an employee of the Commission personally engaged, directly or indirectly, in the definition of the requirements, project or activity to which the Solicitation relates.
- h) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) have been identified on, or associated with any individual, groups, undertakings and entities identified on, the list established pursuant to the UN Security Council Resolution 1267 (Consolidated Sanctions List).¹
- i) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) are subject to any form of sanction imposed by an organization or body within the United Nations System, including the World Bank.

¹ The Consolidated United Nations Security Council Sanctions List can be found on the following website:
<https://www.un.org/securitycouncil/content/un-sc-consolidated-list>

- j) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any), is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- k) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) will use the funds received under contracts/purchase orders with the Commission to provide support to individuals, groups, undertakings or entities associated with terrorism.
- l) The prices in the firm/organization's proposal/bid/quotation have been arrived at independently, without consultation, communication or agreement with any other interested companies, competitor or potential competitor with a view to restricting competition.
- m) The Commission shall have the right to disqualify the firm/organization from participation in any further procurement proceedings, if it offers, gives or agrees to give, directly or indirectly, to any current or former staff member of the Commission a gratuity in any form, an offer of employment or any other thing of service or value, as an inducement with respect to an act or a decision of, or a procedure followed by, the Commission in connection with a procurement proceeding.
- n) The Commission shall have the right to disqualify the firm/organization from participation in any further procurement proceedings if it does not disclose to the Commission any situation that may appear as a conflict of interest, and if it does not disclose to the Commission if any official or professional under contract with the Commission have an interest of any kind in the firm/organization's business or any kind of economic ties with the firm/organization.
- o) The firm/organization expressly agrees to abide by the United Nations Supplier Code of Conduct.¹

Name (print): _____

Signature: _____

Title/Position: _____

Place (City and Country): _____

Date: _____

¹ <https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct>

MODEL CONTRACT

between

**THE PREPARATORY COMMISSION
FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY
ORGANIZATION**

and

NAME OF CONTRACTOR

For:

**PROVISION AND DISPOSAL OF RADIOACTIVE CALIBRATION
SOURCES FOR IMS RADIONUCLIDE STATIONS ON A CALL-OFF
BASIS**

This Contract comprises this cover page, a table of contents,
16 (sixteen) pages of text, a signatories page, a List of Annexes and
3 (three) Annexes (A to C)

January 2025

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MODEL CONTRACT

This Contract is entered into between the **PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION** (hereinafter referred to as the “Commission”), having its office located at Wagramer Strasse 5, 1400 Vienna, Austria, and [Name of Contractor] (hereinafter referred to as the “Contractor”), having its principal office located at [address] (both hereinafter individually referred to as the “Party” and collectively as the “Parties”).

The Parties hereto mutually agree as follows:

1. DEFINITIONS

In this Contract, words and expressions shall have the same meanings as respectively assigned to them in the General Conditions of Contract and the Terms of Reference. In addition, the following words and expressions shall have the meanings hereby assigned to them:

“**Annex A**” means the Commission’s General Conditions of Contract.

“**Annex B**” means the Commission’s Terms of Reference.

“**Annex C**” means the Contractor’s Proposal.

“**Contract**” means this document, its Annexes, FRD and any further modifications or such further documents as may be expressly incorporated in this Contract by the Parties in accordance with Clause 22 (Contract Amendment) below.

“**Contractor**” means the legal entity named in the preamble of this Contract or its successors. The Contractor shall be the only interface for all matters pertaining to execution of the Work under this Contract.

“**FRD**” means a Formal Request for Delivery to be issued by the Commission specifying goods and/or services to be provided by the Contractor upon request by the Commission in accordance with the provisions of the Contract and Annexes B and C.

“**Goods**” means the equipment items to be supplied and delivered by the Contractor under the Contract as requested by the Commission under FRDs.

“**Party(ies)**” means the Commission and/or the Contractor, as the context requires.

“**Rule(s)**” means any regulation(s), official directive(s), ordinance(s), guideline(s), customs and practices.

“**Services**” means services provided by the Contractor under this Contract as requested by the Commission under FRDs.

“**Taxes**” shall mean all direct and indirect taxes (including value added tax, general sales tax or goods and services tax), assessments, fees, customs duties, liens and charges in as much as they are levied in conclusion or implementation of the Contract, including customs restrictions and

charges of similar nature in respect of articles imported or exported for the Commission's official use.

“Work” means all the Goods and/or Services to be provided by the Contractor, including its affiliates and/or subcontractors, in order to fulfil all its obligations under the Contract, and the remedying of any defects therein.

2. AIM OF THE CONTRACT

The aim of this Contract is the Provision and Disposal of Radioactive Calibration Sources for IMS Radionuclide Stations on a Call-Off Basis, as and when required by the Commission in accordance with Annexes B and C.

3. ENTRY INTO FORCE AND DURATION OF THE CONTRACT

3.1 The Contract shall enter into force upon the date of the last signature by the authorized representatives of the Parties and shall be valid for 3 (three) years thereafter and until the Parties fulfill all their obligations hereunder.

3.2 The Commission has the option, but not the obligation, to extend the Contract for 2 (two) periods of 2 (two) years each under the same terms and conditions as those of this Contract. The Commission will inform the Contractor about the intention to extend the Contract at least 1 (one) month prior to the expiry of the Contract. The optional extensions will be implemented through a written notification to the Contractor by the Commission.

4. RESPONSIBILITIES OF THE CONTRACTOR

4.1 The Contractor shall supply the Goods and provide the Services as specified in Annexes B and C.

4.2 The Contractor shall provide qualified English-speaking personnel as necessary to perform the Work under this Contract. The key persons shall be available for possible tasks related to the Work throughout the duration of the Contract period. Any replacement of the key personnel shall be made in accordance with Clause 7 of Annex A.

5. FORMAL REQUESTS FOR DELIVERY

5.1 General provisions

(a) During the Contract duration the Commission will issue individual FRDs based on the firm fixed unit prices of the Goods and/or fixed unit rates for the Services reflected in Annex C. For delivery to required destinations, prior to issuing the FRD, the Commission shall request the Contractor for estimated shipping costs for the Commission's assessment and approval.

(b) Each FRD shall be valid until its successful completion by the Contractor and acceptance by the Commission of the Work performed.

(c) The FRD shall specify, as applicable, the required Work, Goods to be supplied and/or Services to be delivered, details of the consignee (name, address and contact information),

ship-to address, shipping instructions, required delivery date and place, notification party(ies) and any other relevant information.

- (d) The Commission may revise the FRD as and when it may deem necessary.
- (e) The Commission makes no commitment under the Contract to call-off any specific quantities of Goods and/or Services specified in Annex B.
- (f) The Commission may, from time-to-time, need to purchase additional Goods and/or Services that do not form part of the list in Annexes B and/or C of the Contract. To this end, the Commission may request from the Contractor a quote for an item or items that are not contained in Annex C. The Contractor shall provide this information within seven (7) days of the Commission's request.
- (g) The Commission may issue FRDs in accordance with this Clause 5, which may include the item or items in question. Such items, which may be purchased through FRDs and which do not form part of Annex B and/or C, shall henceforth be incorporated by reference into the list of prices in Annex C (hereinafter referred to as the "List of Prices"). The prices for such above-mentioned items shall be firm and fixed from the date of issuance of the relevant FRD including such item(s) and henceforth remain valid in accordance with Clause 12 below and Annex C, until the expiry of the Contract.
- (h) The Contractor shall, on a yearly basis, prepare a list of items "incorporated by reference" through FRDs and submit it to the Commission for its own records.

In the event of any inconsistencies between the List of Prices and the FRD issued, the relevant FRD shall prevail.

(i) Delivery of Services without prior Commission's approval

Delivery of any Services without prior approval and acceptance by the Commission shall not be subject to financial compensation.

(j) Estimates

(i) For all other required items not addressed above, the Commission shall request the Contractor, prior to the Commission's issuance of an FRD, to provide estimated costs for shipping, airfare, local transportation and/or any other applicable items. The Contractor shall provide such estimates within 1 (one) week from the request. The Commission, at its own discretion, will approve the inclusion of relevant items quoted by the Contractor in accordance with the specific requirements of the FRD.

(ii) Without prejudice to Clauses 23 and 24 of Annex A, if the Commission is not in agreement with the estimates provided, there will be a maximum period of negotiation of 1 (one) month.

(iii) For any of the above-mentioned estimated costs included in a FRD, at the time of payment the Contractor shall submit to the Commission supporting documentation of costs actually incurred, such as copies of invoices, insurance policies and shipping documents, as

appropriate, and the Commission will pay such costs based on the actual costs documented and up to an amount not exceeding the estimate by more than 10%.

5.2 Delivery Terms

5.2.1. Unless otherwise instructed in the FRD or authorized by the Commission in writing, the following shall apply in respect to the delivery of the Goods under the Contract:

- (a) The Contractor represents that it shall arrange for the most cost effective means for the delivery of the Goods to the specified destinations.
- (b) Depending on the destination, the trade and shipping terms applicable under the Contract shall be door-to-door “**DAP** (delivered at place)” or “**DDP** (delivered duty paid)”, based on the INCOTERMS (International Commercial Terms) 2020.
- (c) The Contractor shall be responsible for all shipping arrangements, including customs clearance and local transportation of the Goods to the final delivery address as specified in the FRD.
- (d) As soon as possible prior to effecting the shipment, the Contractor shall send to the Commission and the consignee a detailed delivery schedule and the shipping documentation, such as flight number and date, airway bill and consignment details (content, weight and dimension of the package). The FRD may require that actual shipment is effected only after an authorization from the consignee is obtained.

5.2.2. Delivery shall always be made in full in accordance with each FRD. Partial delivery (i.e. delivery not completed per each FRD) is not acceptable without prior written consent by the Commission.

5.3 Delivery via the United Nations Development Program

The Commission may request that the Contractor arranges the delivery of the Goods through the United Nations Development Programme (UNDP) offices in order to utilize the Commission’s agreement with UNDP which waives the payment of import taxes into specific countries. This information will be supplied to the Contractor in the FRD. In this case, the Goods may first be delivered to the UNDP office and then re-routed to the Consignee. The Contractor shall be responsible for all delivery arrangements, as instructed by the Commission.

5.4 Required Delivery Date

The Goods shall be received by the consignee within the required date specified in the FRD, or within a longer period, if so agreed by the Commission.

5.5 Title and Risk

Unless stipulated otherwise, title to any Goods supplied by the Contractor or provided by the Commission shall be transferred to the consignee upon the delivery of the Goods to the final destination. A note of acceptance of the Goods shall be obtained by the Contractor from the consignee.

5.6 Commitment to Call-off

The Commission makes no commitment under the present Contract to call-off any specific quantities of equipment, tools, spares or services specified in the Terms of Reference.

6. STANDARD OF WORK

The Contractor shall perform the Work in a workmanlike manner in conformity with standard professional practices, using qualified personnel and in strict accordance with the Contract. The Contractor shall furnish the highest skill and judgement and cooperate with the Commission, including all the Commission's consultants and agents, in best furthering the interests of the Commission and the aim of this Contract. The Contractor shall provide efficient business administration and supervision, and it shall perform the Work in the best way and in the most expeditious and economical manner consistent with the requirements of the Contract.

7. INSURANCE

7.1 The Contractor shall provide appropriate insurance, as specified in Clause 9 of Annex A.

7.2 In addition, the Contractor shall, without limiting its own or the Commission's obligations and responsibilities under this Contract, provide and thereafter maintain insurance with respect of the Goods from the date of their receipt by the Contractor from the manufacturer until receipt by the delivery party at the final destination. For this purpose, Global insurance shall be arranged with a single insurance company on an as-arranged basis at the same rate of insurance premium for the execution of each FRD. It shall be in an adequate amount to cover the full replacement cost plus an additional sum of ten percent (10%) of such replacement cost to cover any additional cost of, and incidental to, the rectification of loss or damage, including professional fees; the insurance shall cover the Contractor against all losses or damages from whatsoever cause arising from the execution of this Contract, from its signature until its successful completion. The insurance referred to in this Clause shall be in the name of the Contractor and the Commission shall be named as an additional insured party.

8 WARRANTY

The provisions of Clause 28 of Annex A shall apply to the Goods and Services performed by the Contractor.

9 PERMITS, NOTICES, LAWS AND ORDINANCES

9.1 The Contractor shall obtain and pay for all permits and inspections necessary for the proper execution and completion of the Work that are customarily obtained upon execution of this Contract and that are legally required at the time the Proposal is received by the Commission. This shall include, but not be limited to, work permits, visa, or similar documents.

9.2 The Contractor shall give all notices required by the nature of the Work.

9.3 If the Contractor notices that the Work or any part thereof required under this Contract is not in accordance with applicable laws and Rules, or with technical or safety standards, it shall promptly notify the Commission thereof in writing.

10. PROTECTION OF PERSONS AND PROPERTY

10.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programmes in connection with the Work.

10.2 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury and loss to:

- (i) all persons on the Commission's or the Station's premises, as applicable, who may be affected thereby;
- (ii) property of the Commission or the Station, as applicable.

10.3 The Contractor shall give all notices and comply with all applicable laws and Rules bearing on the safety of persons and property and/or their protection from damage, injury and loss.

10.4 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for the safety and protection of persons and property, including posting danger signs and other warnings against hazards and promulgating safety regulations.

10.5 When the use or storage of combustible, explosive or other hazardous materials is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

10.6 The Contractor shall be responsible for the prevention of accidents on the Commission's or the Station's premises, as applicable, during the execution of the Work.

10.7 In any emergency affecting the safety of persons or property, the Contractor shall promptly act to prevent threatened damage, injury and loss.

10.8 The Contractor shall promptly remedy all damage and loss to any property, referred to in Clause 10.2 above, caused in whole or in part by the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under Clause 10.2 above, except damage and loss attributable to the acts or omissions of the Commission or anyone directly or indirectly employed by it, or of anyone for whose acts the Commission may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to its obligations under Clause 9 of Annex A.

11. RESPONSIBILITIES OF THE COMMISSION

The Commission shall designate members of its staff to act as points of contact for the Contractor to ensure that the Work is carried out in accordance with Annexes B and C and shall promptly notify the Contractor thereof. The Commission shall respond promptly to requests for information by the Contractor regarding the Work.

12. PRICES

12.1 The firm fixed unit prices of the Goods and/or fixed unit rates for the Services in Annex C and approved in a FRD (for items added by reference in accordance with Clause 5 above) (hereinafter referred to as the “Prices”) shall be firm and fixed and held unchanged for the period indicated in Clause 3 above and shall exclude any applicable Taxes, fees, duties and charges owed by the Contractor in respect to the Goods and/ or Services at the conclusion or implementation of this Contract.

12.2 The Prices shall cover all costs and expenses, excluding Taxes, incurred by the Contractor for the full and proper performance of all obligations under the Contract (including travel, allowances, management and remuneration of the personnel, national income tax, medical insurance, and social security contributions). It also includes work performed by the Contractor’s personnel outside the Commission’s normal working hours.

12.3 The Contractor shall not do any work, provide any materials or equipment, or perform any Services, which may result in any charges to the Commission over and above the issued FRD without the prior written consent of the Commission and a formal written amendment to this FRD.

12.4 The Contractor shall be reimbursed by the Commission for any applicable Taxes on the basis of actual amounts paid and duly documented by the Contractor as per Clause 13.2 (d) below.

OR

No Taxes are applicable under this Contract.

13 PAYMENT TERMS

13.1 For each FRD the Commission shall pay to the Contractor, in consideration of the full and proper performance of its obligations under the Contract, the relevant Prices, DSA, plus the actual costs, not to exceed the estimates with more than 10% under each issued FRD, unless specified otherwise by the Commission. Upon satisfactory completion of each FRD the Contractor shall submit the following supporting documentation to the Commission for payment, as applicable to the relevant FRD:

- (a) Original invoice submitted in accordance with Clause 13.2(a) below reflecting the actual costs;

- (b) Delivery note countersigned by the consignee listing the Goods delivered and confirming their receipt and acceptance;
- (c) Copy of the airway bill or bill of lading showing the date of the flight or shipment, if applicable;
- (d) Copy of the carrier's invoice supporting the actual shipping costs on the Contractor's invoice;
- (e) Copy of the certificate of transportation insurance;
- (f) Certificate of origin, if applicable;
- (g) Documentation referred to in Clause 13.2 (d) below supporting any Taxes paid, if applicable;
- (h) Any other documentation that might be required under the applicable FRD; and
- (i) Relevant Report(s), as per Annex B.

13.2 General Payment Provisions

- (a) The Commission shall make the payments to the Contractor on the basis of an invoice submitted by the Contractor. All payments shall be made within 30 (thirty) days of the receipt and acceptance of the original invoice, provided that the Work has been satisfactorily completed and has been accepted by the Commission.
- (b) The making of any payment hereunder by the Commission shall not be construed as an unconditional acceptance by the Commission of the Work accomplished by the Contractor up to the time of such payment.
- (c) The Contractor shall submit an invoice electronically, from the Contractor's official e-mail address in PDF format, duly signed and sealed by the Contractor and submitted to the Commission's email address specified under Clause 23 below. Each invoice shall contain the Contract number (CTBTO and SAP numbers), detailed banking instructions, including the name and address of the Contractor's bank, account number, account holder's name and SWIFT, IBAN and/or ABA codes for payment by electronic transfer.
- (d) Applicable Taxes payable by the Contractor and/or its subcontractor(s) in respect of the Work shall be invoiced separately or be separately identified on the invoice. Actual payment of the Taxes must primarily be supported by original documentation such as invoices, bank account statements, transfer orders, or receipts issued by the local tax or customs authorities. If submission of such original documentation is not possible for justifiable reasons, their copies could be accepted by the Commission provided that they are duly signed and certified by local tax or customs authorities. In case the currency in which the Taxes are levied is not the currency of the Contract, bank statements (or equivalent) showing the exchange rate used for the conversion should be submitted to the Commission, in addition to any other supporting documentation].

14. MARKET FLUCTUATION

- 14.1** The unit prices of the Goods and unit rates for the Services shall be held fixed for the entire duration of the Contract. If the prices increase for reasons not under the control of the Contractor (e.g. Goods supplied by a third party), or the Goods become unavailable, the Contractor shall propose to the Commission, for its approval, a replacement item with equivalent specifications to honor the firm fixed unit price. In the event that an equivalent Good at the fixed unit price cannot be identified, the Contractor shall notify the Commission as soon as possible. Such an item shall be incorporated by reference into Annex C of the Contract.
- 14.2** If the market price of the Goods decreases, the Contractor shall enable the Commission to enjoy the benefit, either by proposing a more efficient replacement item or a lower unit price in accordance with the market price for the Commission's approval. If, however, the market price increases, the agreed firm fixed unit price shall be maintained with the agreed configuration/specifications.
- 14.3** Any discounts for items in the equipment list to be offered by the Contractor, in accordance with Clause 14.2 of the Contract shall be incorporated by reference into Annex C of the Contract.

15. TEMPORARY SUSPENSION OF WORK

The Commission may, at any time, temporarily suspend the Work, in whole or in part, being performed by the Contractor under this Contract by giving 30 (thirty) days' advance notice in writing to the Contractor. The Work so suspended shall be resumed by the Contractor on the basis of a revised time schedule and on terms and conditions to be mutually agreed upon between the Parties.

16. DELAYS AND EXTENSION OF TIME

- 16.1** If the Contractor is delayed at any time in the progress of the Work by any act or omission of the Commission or by any of its employees, or by any other contractor employed by the Commission, or by changes in the Work ordered by the Commission, or by any causes beyond the Contractor's reasonable control, or by any other cause which the Commission determines may justify the delay, then the time for completion of the Work shall be extended by an amendment to this Contract in accordance with Clause 22 below for such reasonable time as the Commission may determine.
- 16.2** Any request for extension of the time for reasons referred to in Clause 16.1 above shall be submitted to the Commission not later than 20 (twenty) days after the commencement of the delay, otherwise said request shall be deemed to be waived. Such request shall state grounds for the delay and shall provide an estimate of the probable effect of such delay on the progress of the Work.

17. CONTRACTOR'S CLAIMS AND REMEDIES

In no event shall the Contractor make any claim against the Commission for or be entitled to additional costs or compensation resulting from any delays in the progress or completion of the

Work or any portion thereof, whether caused by the acts or omissions of the Commission, including, but not limited to, damages related to overheads, loss of productivity, acceleration due to delay and inefficiency. The Contractor's sole remedy in such event shall be an extension of time for completion of the Work, provided the Contractor otherwise meets the requirements and conditions set forth in this Contract.

18. ENTIRE AGREEMENT

This Contract represents the final agreement in respect of the Goods and/or Services and shall supersede all prior agreements and representations between the Parties in this respect. Annexes A to C and the FRD(s) shall constitute integral parts of this Contract and shall be of full force and effect.

19. DISCREPANCIES

If there are discrepancies or conflicts between any of the documents that are part of this Contract, the document to prevail shall be given precedence in the following order:

- (j) This document;
- (ii) The Commission's General Conditions of Contract (Annex A);
- (iii) The Commission's Terms of Reference (Annex B);
- (iv) The Contractor's Proposal (Annex C);
- (v) The relevant FRD.

20. SEVERABILITY

If any term and/or provision of this Contract is or becomes invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions of this Contract shall not in any way be affected or impaired thereby.

21. NO WAIVER

Failure by a Party to enforce a right shall not be deemed to be a waiver of that right unless otherwise expressly provided in this Contract.

22. CONTRACT AMENDMENT

No modification of, or change in, this Contract, or waiver of any of its provisions, or additional contractual relationship with the Contractor shall be valid unless approved in the form of a written amendment to this Contract, signed by duly authorized Representatives of the Parties.

23. TRANSMISSION OF NOTICES AND OTHER DOCUMENTS

Notices, invoices, reports and other documentation under the Contract shall be delivered or sent to the relevant Party at the following address (or such address or email address as the Party may substitute by notice after the date of the Contract):

- (a) The Commission:

For Contractual Issues:

Chief, Procurement Section

Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)
Vienna International Centre
Wagramerstrasse 5, P.O. Box 1200
1400 Vienna, Austria
Tel: + (43 1) 26030 6350
E-mail: procurement@ctbto.org

For submission of invoices:

Accounts Payable
CTBTO Financial Services Section
Vienna International Centre
Wagramerstrasse 5, P.O. Box 1200
1400 Vienna, Austria
Tel: + (43 1) 26030 6292
E-Mail: Payable_Invoices@ctbto.org

For invoices related enquiries:

Payments@ctbto.org

(b) The Contractor:

Name:

Address:

Tel:

Email:

24. EFFECTIVENESS

24.1 Except as provided below, any communication in connection with the Contract will be deemed to be given as follows:

- (i) if delivered in person, at the time of delivery;
- (ii) if by registered mail or courier, when received;
- (iii) if by electronic communication, when retrievable by the Commission in document form.

24.2 A communication given under Clause 24.1 above that is received or becomes retrievable on a non-working day or after business hours at the seat of the Commission will only be deemed to be given on the next working day of the Commission.

IN WITNESS hereof, the duly authorized representatives of the Parties have executed this Contract in Vienna, Austria:

For and on behalf of the **PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION:**

[Name and Position]

Date: _____

Place: Vienna, Austria.

For and on behalf of **[CONTRACTOR]:**

[Name and Position]

Date: _____

Place: _____

LIST OF ANNEXES

ANNEX A: THE COMMISSION'S GENERAL CONDITIONS OF CONTRACT

ANNEX B: THE COMMISSION'S TERMS OF REFERENCE

ANNEX C: THE CONTRACTOR'S PROPOSAL

Annex B

TERMS OF REFERENCE
FOR THE PROVISION AND DISPOSAL OF
RADIOACTIVE CALIBRATION SOURCES
FOR IMS RADIONUCLIDE STATIONS

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1 INTRODUCTION

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (hereinafter referred to as the “Commission”) operates a global verification regime to monitor compliance with the Comprehensive Nuclear-Test-Ban Treaty. It provides timely data, assessments and other products and services to Signatory States of the Treaty.

The Commission seeks to establish a standing contract (hereinafter referred to as a “call-off contract”) for the provision and disposal of calibration sources with firm fixed prices over a period of 3 (three) years with the option, but not the obligation, to extend the Contract for 2 (two) periods of 2 (two) years each, in compliance with these Terms of Reference (hereinafter referred to as the “TOR”) for the IMS radionuclide monitoring stations at locations listed in Attachment 1. The purpose of this document is to describe the specific requirements of the Commission for the provision of the required services.

Sources and services as described in this TOR are initially required for radionuclide monitoring stations at locations listed in Attachment 1. During the term of the Contract, the Commission may at its sole discretion, require the Contractor to provide sources to new stations and/or locations (an ‘additional station’) not identified in Attachment 1. The Commission may exercise such rights by notifying the Contractor in writing with adequate advance notice of any additional station and change in the required services, whether overall or at any particular IMS monitoring station. The Contractor shall provide services to such additional stations not later than thirty (30) days following the date on which such notice is provided.

2 RANGE OF SERVICES

The Contractor shall:

- (a) Provide calibration standards to IMS radionuclide monitoring stations, as described in Section 3;
- (b) Provide quality control (QC) sources as described in Section 4, if required by the Commission.
- (c) Ship calibration standards and QC sources as described in Section 5;
- (d) Arrange disposal services for calibration standards and QC sources provided under the Contract as described in Section 6.

Contractor need to have a minimum of 5 years experience preparing similar type of standards

Under the Contract, individual written Formal Requests for Delivery (FRD) will be issued for the provision and shipment of new sources, and separately, for the disposal of old radioactive sources. Each FRD will be based on the firm fixed prices for the sources and the disposal services and on estimated shipment prices.

The FRD will contain the following information:

- Type of required calibration standard (filter type and geometry);
- Recipient, delivery address, point of contact;

- Expected delivery time (defined as the time of arrival at the delivery address);
- Shipping instructions, if applicable.

3 CALIBRATION SOURCES

All calibration standards shall be traceable to relevant national or international primary standards for radioactivity. Calibration standards shall be provided classified as sealed sources according to radiation safety regulations. They shall be accompanied by a certificate that states the classification as sealed source including surface contamination tests as well as activities, gamma emission rates and their uncertainties as well as relevant nuclear data, such as half-life, energy, and gamma-emission probability. The certificate shall also contain a description of the calibration standard (material, dimensions, sealing, etc.). A copy of the certificate shall be submitted to the Commission by e-mail. In addition, the Contractor shall provide the certificate file in the IMS2.0 format described in Attachment 2, to the station and a copy to the Commission by e-mail.

3.1 Calibration range and nuclides

The standard filter calibration source shall cover energies at least between 59 keV and 1836 keV.

The standard filter calibration source shall contain the following nuclides:

^{241}Am , ^{109}Cd , ^{57}Co , ^{139}Ce , ^{113}Sn , ^{137}Cs , ^{54}Mn , ^{88}Y , ^{65}Zn and ^{60}Co .

For some stations the calibration standard must also contain ^{210}Pb . These cases will be clearly specified in the FRD. The cost of adding this optional nuclide should be included in the proposal.

The SPALAX and SPALAX NG calibration source shall contain the following nuclides:

^{241}Am , ^{109}Cd , ^{57}Co , ^{137}Cs , and ^{113}Sn .

For some stations the calibration standard must also contain ^{139}Ce and/or ^{54}Mn . These cases will be clearly specified in the FRD. The cost of adding these optional nuclides should be included in the proposal

3.2 Activity

The initial activities of the nuclides in the calibration standard (reference date) shall be such that they lead to similar peak areas at the time of delivery, unless practical considerations such as half-life and interference with other peaks prevent this.

The activity of the standard calibration sources shall fulfil the following requirements:

3.2.1 Filter calibration sources

For filter calibration sources a total activity of approximately 10 kBq is recommended. The activity of relatively short-lived nuclides such as ^{139}Ce , ^{113}Sn and particularly ^{88}Y in the mixture should be such that these would still be detectable at arrival and within the 3-year period of use with standard HPGe detectors with reasonable statistics (few %) after 6 hours of acquisition time. The Contractor shall propose the activity of each nuclide in the mixture but here is a reference at arrival.

Isotope	Activity (Bq)
Am-241	300
Cd-109	3000
Co-57	150
Ce-139	1000
Sn-113	2000
Cs-137	100
Mn-54	150
Y-88	3000
Zn-65	360
Co-60	210

The total activity of the standard source shall be suitable for measurement in close geometry (i.e. the total activity shall be so low that eventual counting dead time does not affect the calibration process): The filter samples sit on the detector or are wrapped around it (see Section 3.8.3, band filter). The detectors have relative efficiencies greater than 40%. Typical detector models used at IMS radionuclide stations are the following:

- Canberra detector model BE 5030: Crystal diameter = 7 cm
Crystal thickness = 3 cm
- Canberra detector model GC5020: Coaxial detector 50% relative efficiency
- Ortec detector models GEM, GMX: Coaxial detector 70 – 110% relative efficiency, p- or n-type
- Ortec detector model Coaxial with relative efficiency 90 - 110%: The filter sample is wrapped around the detector (and does not sit on the end-cap)
- For SPALAX
Canberra detectors model
BE2825: Area 28 cm², Thickness 25 mm and 18 % relative efficiency
BE3825: Area 38 cm², Thickness 25 mm and 26 % relative efficiency

3.2.2 SPALAX calibration sources

Activity levels for SPALAX calibration sources shall be approximately at arrival:

Isotope	Activity (Bq)
²⁴¹ Am	800
¹⁰⁹ Cd	15000
⁵⁷ Co	1500

^{139}Ce	5000
^{113}Sn	1900
^{137}Cs	400
^{54}Mn	400

3.2.3 SPALAX NG calibration sources

The source will be composed by following elements:

Isotope	Activity (Bq)
Am-241	1174
Cd-109	15950
Co-57	2145
Sn-113	4529
Cs-137	3444
Mn-54	906

Activities may vary +/- 20%

The supplier must give in the source certificate the activities measured as well as the uncertainty corresponding to the measurement.

The total activity of the source will be 25 kBq.

3.3 Homogeneity

The radioactive material shall be distributed among the source matrix as evenly as possible. The contractor shall propose a method to check and ensure the homogeneity of the nuclide distribution in the calibration standards. The homogeneity tests shall be performed for each calibration standard and its results shall be provided and included as applicable in the uncertainty budget.

3.4 Certificate Validity

The validity of the certificate shall be at least 3 years from the date of delivery. In case source has a working life, for safety reasons this has to be stated separately.

3.5 Activities and Emission rates in the Certificate

The certificate for SPALAX calibration sources shall contain the certified activities [Bq] and the photon emission rates (gamma/s or X-rays/s) for each of the following spectral energies:

Isotope	Spectral Energy (KeV)
^{109}Cd	22.10 (combined $K\alpha_1$ and $K\alpha_2$)

¹³⁷ Cs	32.06 (combined Kα1 and Kα2)
²⁴¹ Am	59.54
¹⁰⁹ Cd	88.03
⁵⁷ Co	122.06
⁵⁷ Co	136.47
¹³⁹ Ce	165.86
¹¹³ Sn	255.06
¹¹³ Sn	391.69
¹³⁷ Cs	661.66
⁵⁴ Mn	834.84

3.6 Uncertainties

All uncertainties shall be reported as standard combined uncertainties (k=1) and the details or factors contributing to the uncertainty budget used shall be provided. Certified activity values should have a relative uncertainty of < 2% (k=1). Any inhomogeneity in the standard shall be quantified, reported and as applicable included in the uncertainty budget.

3.7 Local regulations

When manufacturing a source for a specific country the Contractor shall take into consideration the national and international regulations for radioactive materials regarding activity levels and transportation. The Contractor shall design the individual nuclide activities in a way that shipments can be made as “exempted material” and if it is not possible as “Radioactive Material, excepted package-limited quantity” taking into account the different national regulations. The Commission shall be notified about any restrictions that lead to a change in the nuclide mixture ordered through the FRD.

3.8 Geometry and Material

The calibration standards shall be made of IMS filter material that is spiked with the required radionuclides. The Commission will provide the filter material and the sample containers for the calibration standards.

Some of the spiked filters need to be pressed; the contractor shall provide the equipment that is necessary for this operation (filter press and die). The Contractor shall ensure that no cross contamination arises through the use of the press and die, and shall implement adequate decontamination procedures. The Commission reserves the right by way of penalty, not to pay the cost of any sample that is proven to be accidentally contaminated and/or admitted by the Contractor to be accidentally contaminated by nuclides which are not declared on the calibration sample certificate(s) submitted to the Commission.

The Contractor shall seal the sample containers so that the calibration standard can be classified as sealed source according to radiation safety regulations.

The calibration standards shall have the same geometry as IMS samples. In the following sample, geometries are described that are presently used at the IMS radionuclide monitoring stations along with requirements for corresponding calibration standards:

3.8.1 Compressed filter – (SW and TGD types)

Filter description

The filter type is 3M 5379 BMF20 polypropylene. The filter assembly consists of the actual filter and a supporting grid that does not collect particles. Two filter sizes are in use and the names (SW and TGD) corresponds to the type of air sampler in which the filter is used.

The sizes and corresponding exposed areas are stated in the table below:

Type	Filter Size	Exposed Area
SW	46 cm x 57 cm	42 cm x 51.5 cm (centred)
TGD	45 cm x 45 cm	41 cm x 41 cm (centred)

Calibration Standard

The supporting grid shall be removed from the filter and not be used for producing the calibration standard. The exposed area of a filter shall be homogenously spiked. The spiked filter shall be pressed (~10 tons) to a disk. The disk shall be put into a PVC sample container (provided by the Commission).

The produced calibration standard shall be additionally sealed so that it is classified as sealed source.

Calibration Standard:

Material: 3M 5379 BMF20 polypropylene spiked and pressed (10 tons) filter

Dimensions: 1. SW: diameter: 50 mm thickness: ~ 4.5 mm

2. TGD: diameter: 50 mm thickness: ~ 3.5 mm

3.8.2 Stacked glass fibre filter (Cinderella)

This type of filter is used in the Cinderella automatic system.

Filter description

The filter is a glass fibre sheet of type Whatman GF/10. The filter is cut into 15 rectangular pieces of 82 mm x 84 mm and placed in a PVC sample container. The exposed area is a circle with a diameter of 77 mm, centred on each piece.

Calibration Standard

The exposed area of a filter shall be homogenously spiked. The spiked filter shall be put into a PVC sample container (provided by the Commission).

The produced calibration standard shall be sealed so that it is classified as sealed source.

Calibration Standard: Cinderella

Material: WHATMAN GF/10 cut and stacked
Dimensions: active diameter 77 mm, centered on pieces of 82 mm x 84 mm
Thickness: 15 pieces (app. 8 mm)

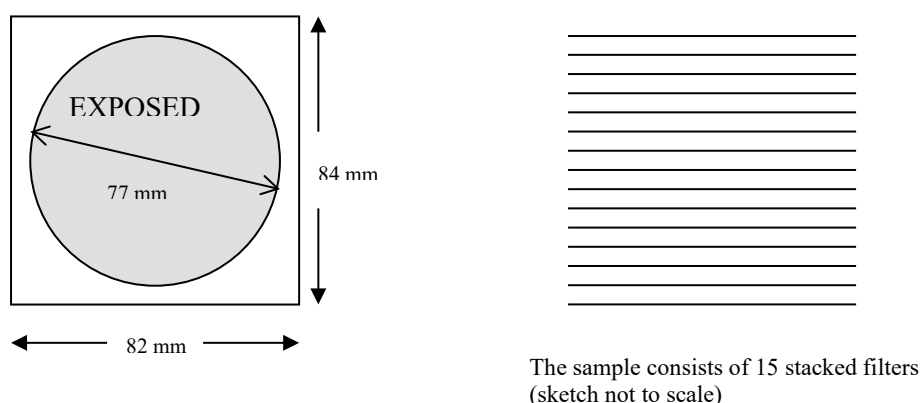


Figure 1

3.8.3 Band filter (RASA)

Filter Description

The filter sample is a segment of a continuous filter band. This type of filter is used in the RASA automatic system. The filter type is: 3M 5379 BMF20 (Polypropylene with scrim).

The exposed area is rectangular with dimensions of 40 cm x 10.5 cm (Figure 2). One sample consists of six layers of filters that are stacked and wrapped in Mylar. For measurement, the sample is wrapped around the detector.

Calibration Standard

The calibration standard shall consist of six layers of filters. The length of the calibration standard shall be 80 cm. An area equal to the exposed area (Figure 2) on each of the six layers shall be homogenously spiked. The spiked layers shall be put in a PVC sleeve and sealed so that it is classified as sealed source.

Calibration Standard: RASA

Material: 3M 5379 BMF20 (Polypropylene with scrim)
Dimensions: Total area: 80 cm x 12.5 cm
Active area: 40 cm x 10.5 cm

Thickness: 6 pieces (or 6 pieces with film)

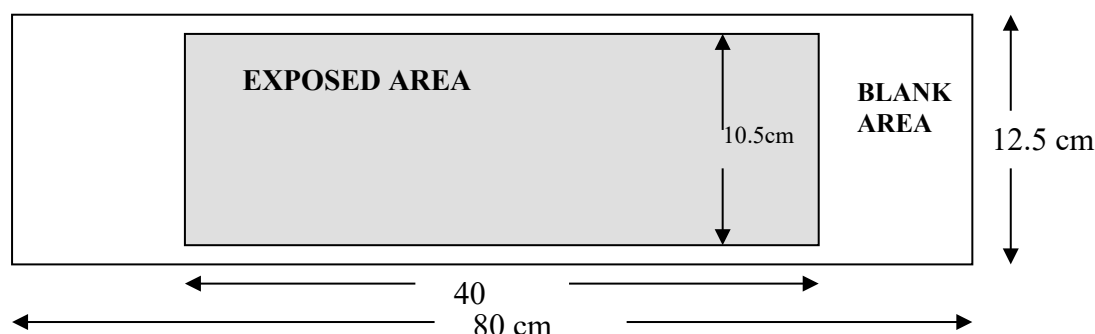


Figure 2

3.8.4 Simulated gas standard for noble gas system SPALAX

Simulated gas standards, i.e. an approximation of a gas volume source, are used for energy, resolution, and efficiency calibration of HPGe detectors utilized in xenon measurement systems of type “SPALAX”.

Sample Description

A typical noble gas sample consists of a gas mixture of approximately 30% xenon and 70% nitrogen under 0.980 mbar in a cylindrical container. The container is typically made of aluminium (or copper with carbon-epoxy-window). The sample container is placed on top of the detector for the gamma acquisition.

Technical Specification for aluminium container (measures in mm):

- Material: aluminum
- Cylindrical shape: inner diameter 60 mm; outer diameter: 66mm
- Inner Height: 9 mm
- Total Outer Height: $(9 + 0.7 + 0.7) = 10.4$ mm
- Window: thickness 0.7 mm
- Top cover thickness: 0.7 mm
- Top cover is mounted and locked on body by screw thread.

Calibration Standard

The sample container will be provided by the Commission. The container will be provided in single parts (cylindrical body and top cover or cylindrical body with window and top cover) for placement of the matrix inside. After placement of the matrix the sample container shall be closed and sealed so that the calibration standard can be classified as a sealed source.

The radionuclides are to be deposited homogenously in a gas simulated matrix with a density of approximately: 0.015 g/cm^3 .

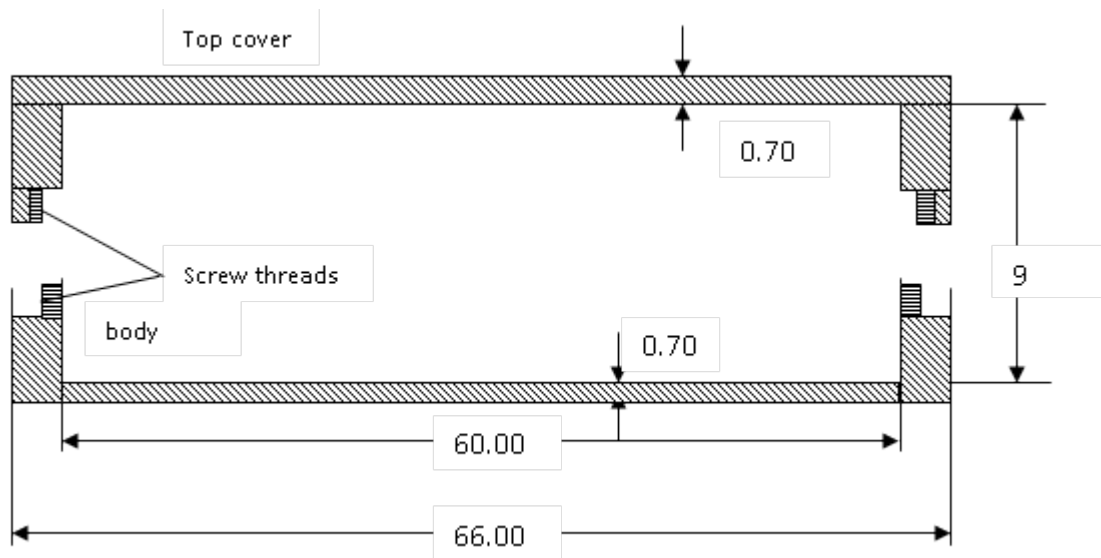


Figure 3

3.8.5 Simulated gas standard for noble gas system SPALAX NG

The cell will have the following geometry:

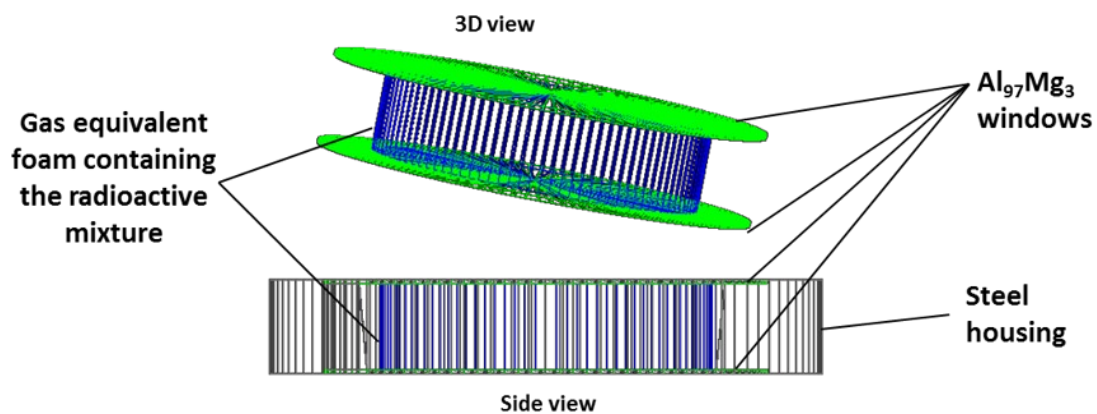


Figure 4

The side envelope provided by PTS:

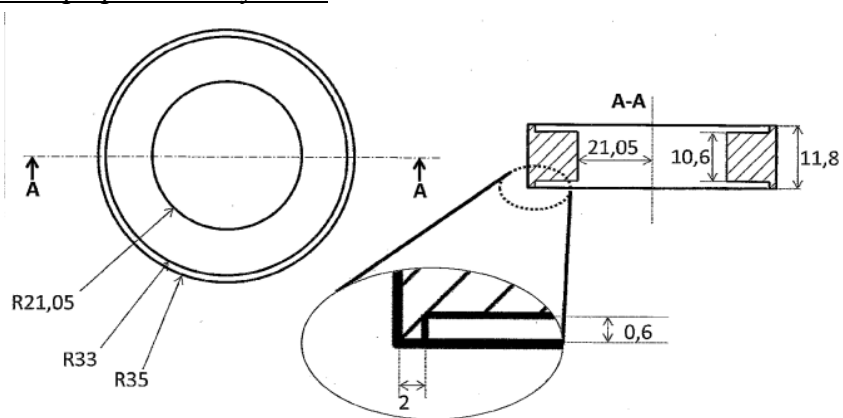


Figure 5

Material : stainless steel 316L

The windows provided by PTS:

- Material: Al₉₇Mg₃
- Condition: laminated
- Diameter: 66,0 mm +/- 0,5mm
- Thickness: 550 µm

The foam:

Two foams measuring 42mm (diameter) x 3mm (thickness) will be placed on either side of the multigamma source to ensure its support. These foams will have a density of 15 kg/m³.

The glue:

The glue will be chosen by the supplier.

4 QUALITY CONTROL CHECK SOURCES

During the term of the Contract, the Commission may occasionally require the provision of QC sources at RN stations. QC sources at radionuclide stations are used to daily check the performance of the gamma spectrometer in terms of energy and resolution. For that purpose a QC-spectrum is acquired for between 10 - 30 minutes. There are four main types of QC source: a) the Basic QC Source used at most stations; b) the RASA QC Source, used at stations equipped with the RASA automatic system; c) SPALAX QC sources for permanent installation, and d) SPALAX QC sources on a rod.

QC sources do not require a traceable certificate. The Contractor shall however, provide a certificate that states the classification as sealed source including surface contamination tests as well as activities, gamma emission rates and their uncertainties.

4.1 Basic QC Source

The basic QC-source shall be a sealed point source. It shall contain the following nuclides:

¹⁵²Eu, ¹³⁷Cs and ⁶⁰Co.

The activity of the nuclides in the QC-source shall be chosen so that a 15 minute acquisition of the QC source placed on the end-cap of a 50% relative efficiency HPGe detector, produces a spectrum with main peak net areas of approximately 10000 counts. The QC source shall be put into a PVC sample container (provided by the Commission).

4.2 RASA QC Source

The RASA automatic system uses a QC source which is placed inside an aluminium rod. Every day at the same time, the rod is lifted from its enclosure and kept in the upper position facing the detector for a 15 minute acquisition, after which it is returned to its storage position.

The Contractor shall insert the QC source inside the aluminium rod and seal it. The rods will be provided by the Commission.

The composition and activity shall be the same as for the Basic QC source.

4.3 SPALAX QC Sources

SPALAX QC sources at radionuclide stations are used to check the calibration of the HPGe detector of the radioxenon measurement system SPALAX. There are two types of SPALAX QC source: a) the SPALAX QC Source for permanent acquisition”, which can be placed permanently inside the lead shield; and b) a “SPALAX QC Source on a rod”, which is manually inserted into the lead shield for acquisition of a QC spectrum for between 15-30 minutes.

4.3.1 SPALAX QC Source with low activity for permanent acquisition

The “QC-source with low activity for permanent acquisition” shall be a sealed point source. It shall contain the following nuclides with activity levels as indicated:

Isotope	Activity (Bq)
Am-241	~ 0.5
Co-57	~ 0.5

4.3.2 SPALAX QC Source with high activity for permanent acquisition

The “QC source with high activity for permanent acquisition” shall be a sealed point source. It shall contain the following nuclides with activity levels as indicated:

Isotope	Activity (Bq)
Am-241	~ 4.5
Co-57	~ 1.5

4.3.3 SPALAX QC Source on a rod

The SPALAX QC source on a rod shall be a sealed source mounted on the top of an aluminium rod. The rod is lifted manually into the lead shield for a 15 minute gamma acquisition, after which it is removed from the lead shield. The contractor shall mount the QC source on the aluminium rod and seal it. The rods will be provided by the Commission. The source shall contain the following nuclides with activity levels as indicated:

Isotope	Activity (Bq)
Pb-210	~5000
Am-241	~ 500
Cs-137	~ 1000

5 SHIPMENT OF SOURCES

(a) The Contractor shall:

- i) Ship the sources to the final destination using a door-to-door service and following international and national regulations for transportation and import of radioactive material into the destination country specified by the FRD.
- ii) Undertake any action related to these regulations that are necessary for the delivery of the radioactive sources to the end destination. The contractor shall acquire all necessary licences, permissions, end-user statements, import permits and other paperwork where necessary with a view to minimising shipment delays. When applicable, the contractor shall advise the recipient about the formalities to acquire permissions to receive radioactive sources.

(b) The Contractor shall be responsible for any damage or loss of any shipment before reaching each specified destination.

(c) The delivery time to the recipient (understood as the time between the receipt of the FRD and the arrival of the calibration standard at the recipient specified in the FRD), shall not exceed 90 days.

(e) The Contractor shall ship each calibration standard together with its official certificate and the certificate file following the same content and format as described in Attachments 2 and 2a.

A list of sites with addresses to which the sources are expected to be regularly delivered, along with the expected number of sources, is provided in Attachment 1.

(f) The Contractor shall deliver basic handling and safety instructions with each calibration standard.

(g) Contractor shall have a minimum of 5 years experience in shipment with radioactive material.

6 DISPOSAL OF SOURCES

Once the life time of the source has elapsed and upon request of the Commission, the Contractor shall:

- (a) Organise the transportation of the sources to the disposal location;
- (b) Dispose the source appropriately following national and international regulations.

7 DOCUMENTATION

The Contractor shall:

- (a) Deliver a certificate with each calibration standard, with the information required in Section 3 and Section 4 above;
- (b) Submit a Delivery Status Report every six months, indicating: FRD No., recipient institution, type of source, quantity, contractor's source ID and dispatch date.

SI units shall be used for all quantities and all documentation shall be in English.

ATTACHMENT 1. Shipping Information

Destination	Number and type of needed standards
Vienna, Austria	1 SW + 1 SPALAX
Buenos Aires, ARGENTINA	1 SW
Fairfax VA, USA	2 RASA
Christchurch, NEW ZEALAND	2 SW
Takasaki-shi, Gunma-ken JAPAN	2 RASA
Melbourne, AUSTRALIA	6 SW
Bruyères-le-Châtel, FRANCE	5 TGD + 5 SPALAX
Santiago, CHILE	2 RASA
Rio de Janeiro, BRAZIL	1 RASA
Reykjavik, ICELAND	1 Cinderella
Stockholm, SWEDEN	1 Cinderella
Longyearbyen, NORWAY	1 Cinderella
Ottawa, CANADA	2 SW + 1 RASA + 2 SPALAX
Panama City, PANAMA	1 SW + 1 SPALAX
Quezon City, PHILIPPINES	1 SW
Freiburg, GERMANY	1 RASA + 1 SPALAX
Kuwait City, KUWAIT	1 RASA
Beijing, CHINA	3 SW + 1 SPALAX
Tristan Da Cunha, UNITED KINGDOM	1 SW
Guerrero Negro, MEXICO	1 Cinderella
Ponta Delgada, PORTUGAL	1 Cinderella
St. Helena Island, UNITED KINGDOM	1 SW
Moscow, RUSSIAN FEDERATION	6 SW
Selangor, MALAYSIA	1 SW
Bangkok, THAILAND	1 SW + 1 SPALAX
Niamey, NIGER	1 SW
Dar es Salaam, TANZANIA	1 SW
Yaounde, CAMEROON	1 SW + 1 SPALAX
Fiji, FIJI	1 SW
Kiribati, KIRIBATI	1 SW
Cape Town, SOUTH AFRICA	1 SW

Notes:

Indicated numbers are estimates of the Commission's requirement over a period of two years and shall serve as planning purposes.

ATTACHMENT 2: Certificate File Supplement

In addition to the Certificate of Calibration to be provided, the Contractor shall also provide for each calibration source the corresponding certificate in text file in accordance with IDC-ENG-SPC-103-Rev.8 entitled “Formats and Protocols for Messages”. The required entries and format is shown below. Uncertainty in % should be overall uncertainty (including homogeneity uncertainty) at k=1.

Table 79. #Certificate block format

Record	Position	Format	Description
1	1–15	a15	#Certificate
2	1–10	i10	total source activity (Bq)
	12–21	i4,a1,i2,a1,i2	assay date (yyyy/mm/dd)
	23–32	i2,a1 i2,a1,f4.1	assay time (hh:mm:ss.s)
3–n	1–8	a8	nuclide name
	10–22	a13	half-life of the nuclide (value and time unit) [†]
	24–31	f8.3	activity of nuclide at assay time
	33–39	f7.3	uncertainty (%)
	41–48	f8.3	γ-energy (KeV)
	50–56	f7.3	γ-intensity (%)
	58	a1	electron decay mode descriptor: B for β particle or C for conversion electron, 0 for none (that is, γ-only source)
	60–67	f8.3	maximum β-particle energy or CE energy (KeV)
	69–75	f7.3	intensity of β-particle (%)

[†] Half-lives are reported with the time value followed by the time unit (S for seconds, H for hours, D for days, or Y for years), with the two separated by a single space (i.e., 34 Y, 12.345 D, 1.89E+05 S, etc.).

An example of this certificate text file is shown below:

```

#Certificate
6784      2012/06/01 12:00:00.0 B
PB-210    8120 D      1611.000 1.490    46.539    4.252    0 0      0
AM-241    158000 D     252.000 1.190    59.541    35.920    0 0      0
CD-109    461.4 D      1303.000 1.305    88.034    3.626    0 0      0
CO-57     271.8 D       54.3000 1.289    122.061   85.510    0 0      0
CE-139    137.6 D       56.000 1.250    165.858   79.900    0 0      0
CR-51     27.7 D      1021.000 1.175    320.084    9.870    0 0      0
SN-113    115.1 D      164.600 1.215    391.698   64.970    0 0      0
SR-85     64.9 D      193.600 1.240    514.000   98.500    0 0      0
CS-137    10976 D      244.000 1.230    661.657   84.990    0 0      0
MN-54     312.1 D      251.000 1.195    834.838   99.975    0 0      0
Y-88      106.6 D      413.000 1.211    898.036   93.900    0 0      0
Y-88      106.6 D      413.000 1.211    1836.052  99.320    0 0      0
ZN-65     244.0 D      523.000 1.338    1115.539  50.220    0 0      0
CO-60     1925.2 D      284.000 1.056    1173.228  99.850    0 0      0
CO-60     1925.2 D      284.000 1.056    1332.492  99.983    0 0      0

```