

## BID CLARIFICATIONS

### RFP 625375-AY

#### Mobile Radiation Monitoring Laboratory

**Closing Date and Time: 2023-07-26 17:00:00 CET, Vienna (Austria)**

#### REMINDER

- Submission of response (proposals) shall be sent to [Official-Mail.Tenders@iaea.org](mailto:Official-Mail.Tenders@iaea.org). **Do not send your response (proposal) to the Responsible Contracting Staff.** The Technical and Commercial Proposals must be submitted in separate electronic files.
- Please be reminded to thoroughly follow the IAEA "Special Instructions to Bidders and pay special attention to Sections 2.2 content of technical proposal, 2.3 content of financial proposal and 2.4 evaluation and selection criteria of the attached "Special Instructions to Bidders".

#### AMENDMENTS TO TENDER DOCUMENTS

- **Shipping Terms** change from Free Carrier (FCA) Supplier's Warehouse to Deliver At Place (DAP), Vienna.

#### 1. Bidder Question No. 1:

- Are you seeking a van-sized vehicle or a truck-sized solution? If a van-type vehicle is preferred, should it be a panel van or a van chassis with a separate box body?
- Additionally, I would like to highlight the issue of delivery time. Many vehicles currently have lengthy lead times, which may impact the overall project schedule. I did not come across any specific delivery time requirements in the tender documents. Is there a firm requirement for a maximum delivery time?

#### IAEA Response No. 1:

- Van-based, for example but not limited to: Mercedes Sprinter, VW Crafter, Renault Master, Iveco Daily – driven with a normal driving license (< 3.5 T);
- (from experience #8-10 months is acceptable) these days, I assume that 12 months are acceptable, there are delays for measurements systems deliveries as well.

#### 2. Bidder Question No. 2:

- **Requirement for the diesel generator:**

*3.9.1. Power the operations of the laboratory vehicle, namely the additional battery, for a duration of 12-18 hours;*

Please clarify if the required operation duration of 12-18 hours for the generator involves the refueling the generators fuel tank using the two extra canisters in the mobile laboratory. Usually diesel generators has a very small tank. Will it be acceptable if the generator with a 2.4 l diesel tank will be offered, then with a consumption of 0.6 l/h (at 75% load) it can operate for a 4 hours without refueling?

- **The set of sampling equipment shall meet the following technical and performance requirements:**  
*2.7.1. Include 3 similar ruggedized boxes with a size of approx. 0.8 m x 0.5 m x 0.5 m each (1 for further storage of empty containers, 1 for further storage of samples once picked up, 1 for further storage of PPE).*

Could you please clarify if only the 3 similar ruggedized empty boxes should be provided as per this requirement, or also empty containers and Personnel Protective Equipment? Are the containers and Personnel Protective Equipment out of the scope of supply. If it is in the scope of supply, please provide the technical requirements for these items and quantities.

**IAEA Response No. 2:**

- A diesel generator operating for 12 hours with its own fuel tank, namely fuel capacity shall be #10 L. Please note that the generator shall charge the additional battery.
- Only the empty boxes are part of this bid, these boxes are for example Pelicases or similar.

**3. Bidder Question No. 3:**

As per point 3.9 The diesel-generator is required.

Could you please clarify if an alternative petrol type engine generator could be considered as suitable for this particular project? As per our consideration a 3kW petrol engine type generator would be much better option. 3kW power is sufficient for the users of mobile laboratory. However, based on our study a diesel engine type generator, which would be equipped with a 10 l tank are available only starting from 5kW power.

Petrol type engine generator would be much lighter (only 45kg instead of ~110 kg diesel type generator), it will produce much less noise and will have much smaller dimensions, so it will fit easier inside the mobile laboratory. The cost is also twice lower of petrol type generator. Reliability and maintenance cost is also much better for a petrol type generator.

**IAEA Response No. 3:**

Thanks, we are aware of these technical constraints. However, the generator shall be diesel generator as only one type of fuel shall be used, namely diesel, for the van and the generator.

**4. Bidder Question No. 4:**

We plan to use equipment from one Manufacturer in the tender, but unfortunately it does not fully meet your requirements, since they are somewhat redundant for solving the problems of this vehicle.

Namely:

- Point 3.3.8: Our selected product energy range starts at 25keV, not 20keV.
- Point 3.4.9: Our selected standard product does not offer measurement of Radon-222 in Bq/m3. It can be offered with special SW version (more expensive) but it not useful for field application as the compensation is done anyway.
- What is the lead time requested? Current lead time for our product is very long (probably around 10 months). It seems to be 12 months max, to be confirmed.

Is it possible to make changes to the technical requirements to expand the amount of equipment that can be offered without adversely affecting the functionality of the mobile laboratory?

**IAEA Response No. 4:**

- 338. The radiation monitoring system energy range starting at 25 keV (not 20 keV) is fine,
- 349. The air monitoring survey system with a standard version, including the compensation, and no direct Rn-222 measurement is fine,
- Given the current situation a delivery within 10 months would be appreciated, 12 months is ok.

**5. Bidder Question No. 5:**

**5.1 Bidder Question No. 5.1:** In point 3.3.6 of specification requirements indicated that preferably and at least volume of each NaI crystal is 2 L. Usually, manufacturers of spectrometric radiological equipment use a crystal with a volume of no more than 0.3 liters. Please clarify whether it is possible to use a crystal with a volume of less than 2 liters? If this is not possible, please clarify whether it is possible to use a matrix of crystals of a smaller volume, but the total volume of which is greater than or equal to 2 liters? Please also specify the sensitivity of the NaI crystal and the energy recording range.

**IAEA Response No. 5.1:** Other types/sizes and assembly of detectors and crystal than 2 x 2L NaI(Tl) are ok – however (3.3.7) the resolution should be at least <8% (Cs-137) and (3.3.6) detection limit equivalent to a 2 x 2L NaI.

**5.2 Bidder Question No. 5.2:** In point 3.3.4 of specification requirements indicated that the software installed on 3 laptops should store, analyze and display measured data in real time. Please clarify if the measured data should be transferred simultaneously to 3 laptops? Data transfer to the laptop software should be carried out through a wired connection, for example, using the Modbus protocol?

**IAEA Response No. 5.2:** Only 1 laptop is working at a time (2 spare laptops with installed software are delivered in addition). Appropriate (robust and well-integrated in the vehicle) wired connection is ok.

- 5.3 **Bidder Question No. 5.3:** In point 3.3.8 of specification requirements indicated the lower limit of the energy measurement range - 20 keV. What is the reason for and according to which normative document such a small lower limit of activity of gamma radionuclides is set? If the NaI crystal is used, the lower limit of the measurement range is approximately 50 keV, because "electronic noise" begins further in the lower energy region. Is it possible for the proposed equipment to have a lower energy measurement range limit of 50 keV?

**IAEA Response No. 5.3:** A range 25 keV to 3 MeV is required

- 5.4 **Bidder Question No. 5.4:** In point 3.3.12 of specification requirements indicated that the data must be available for export in the IRIX format. What is the reason for the need to export information in this particular file format? In what other file formats can information be saved and exported if the equipment does not have the ability to store in the IRIX format?

**IAEA Response No. 5.4:** It is required that the data files produced are in IRIX format with a customizable identification section.

- 5.5 **Bidder Question No. 5.5:** In point 3.4.9 of specification requirements, the measurement range of Radon-222 is indicated in the range of 0-100 Bq/m<sup>3</sup>. Please clarify whether the radionuclide Radon-222 should be determined selectively in the range of 0-100 Bq/m<sup>3</sup>? If the determination of the activity of Radon-222 must be selective, is it possible that a separate analyzer for the selective measurement of Radon activity in the range of 0-100 Bq/m<sup>3</sup> with the possibility of transferring data to a laptop was proposed in the proposal of the procurement participant to meet the requirements of point 3.4.9?

**IAEA Response No. 5.5:** The air monitoring survey system with a standard software version, including the compensation, and no direct Rn-222 measurement is fine.

- 5.6 **Bidder Question No. 5.6:** In point 3.1.5 you indicate the following – “Be able to go on and off-road”. Please specify which type of vehicle drive must be used to meet this requirement. Please provide more complete machine type requirements.

**IAEA Response No. 5.6:** A van-based vehicle, for example but not limited to: Mercedes Sprinter, VW Crafter, Renault Master, Iveco Daily – driven with a normal driving license (< 3.5 T).

**6. Bidder Question No. 6:**

Spec 3.5.5: Identify and quantify the radionuclides using gamma spectrometry ....

- for quantifying, do you intend assessing the activity of the detected radionuclide (e.g. 150kBq)? Or you intend, to list all the found radionuclides (e.g. Cs-123, Na-22, etc)

**IAEA Response No. 6:** Identifying meaning identifying which radionuclide (natural and artificial is detected) and quantifying meaning which activity is associated with the detected radionuclide (in Bq, Bq/m<sup>2</sup>, Bq/kg).