

	Nordisk Sikkerhet AS
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	Ref.: Supply of vehicle for radiation monitoring and post-detection activities
	Project title: "Post-detection equipment and training for Lisichansk unit of Luhansk border detachment, SBGS, Ukraine"

Addendum No. 2

Questions and Answers No. 2

**Supply of vehicle for radiation monitoring
and post-detection activities
(mobile radiological complex)**

16th February 2022
Bærums Verk, Norway

The following questions have been sent to Nordisk Sikkerhet concerning the tender.
The questions and Nordisk Sikkerhet's answers are presented below.

Vehicle, Section 1

Q1: Please clarify if class of the vehicle should be understood as requirement for driving license? Like: Class B – Permission to drive a vehicle with GVW (Gross Vehicle Weight) of 3500 kg?

If yes, then 4x4 vans from known manufacturers usually weights around 2400-2600 kg, which leaves with approx. 1100-900 kg of available load.

The interior of the compartment, generator, inverter, batteries, heater etc. might weight of additional +400 kg.

The team to be transported would be 5 people, which equals to at least +400 kg of additional load.

The equipment to be transported might weight of approx. +200 kg.

So the total weight is approx. of 3400-3600 kg and the vehicle would always operate at max GVW or would exceed it. Which translates to permanent overload to suspension and chassis components and reduces their durability and/or violation of rules and regulations.

Please clarify if it would be acceptable if the vehicle offered would be of higher GVW than 3500 kg with higher possible load of ~2400 kg, but would require a drivers' license of class C?

A1: This question relates to Section 1 of Specifications, item "Class of vehicle".

1. Class "B" with four-wheel drive is requested in accordance with Specifications. Class "C" is not acceptable for the Recipient, State Bord Guard Service of Ukraine.

The tenderers are kindly requested to give preference to lightweight materials in the interior of the vehicle to minimize the total weight of the Mobile radiological complex as much as possible.

2. In its technical proposal the tenderer is requested to provide the specifications of weights of each item and estimated total weight of the fully equipped Mobile radiological complex. Some of the vehicle components can be excluded from the final scope of supply under the contract, if it is necessary, depending on the Contracting Authority's choice.

With reference to Section 4 of Invitation to tender, the Contracting Authority reserves the right to vary (either reduce or increase) the quantity of the goods to be supplied or reduce the services to be rendered under this Contract after the evaluation of tenders and prior to award of the Contract. Where such a modification is made it shall not exceed the greater of 25% of the total tender price. The unit prices used in the tender shall be applicable to the quantities procured under the variation.

The technical and financial tender proposal shall include all the items as per Specifications.

Questions & Answers

Please note that in course of contract implementation the Contractor shall agree the conceptual design of Mobile radiological complex with the Recipient and Contracting Authority prior to equipment manufacture (Ref. to Clause 10.3 of Tentative contract).

System assisting the cold-start of diesel engine, Section 1

Q2: Vehicle should be equipped with the System assisting the cold-start of diesel engine. Such system should be understood as coolant heater or as heating plugs?

A2: The vehicle shall be equipped with an additional heater.

Inverter for the AC mains, Section 1

Q3: Please clarify the power of the inverter. Please clarify if the inverter should operate as inverter only or also in inverter/charger mode?

A3: Active power of the inverter in course long-term use shall not be less than 2000 W (Output Power Continuous). The inverter should operate in inverter/charger mode.

Generator, Section 1

Q4: Please confirm if we understood correctly: a portable diesel generator is required with its' separate fuel tank (so the portability would be ensured), but ALSO the generator should be able to be connected to the fuel line from the fuel tank of the vehicle?

Will the generator be used inside and outside the vehicle? If yes, then it would complicate the connections of fuel lines, removal of heat and exhaust fumes.

It is highly advised to select: portable only or stationary only.

A4: The diesel generator is intended for stationary use. It should be installed in the rear (technical) compartment of the vehicle, with feeding from the fuel tank of the vehicle. It is not expected by the Recipient to remove the diesel generator outside the vehicle.

A separate fuel tank for the diesel generator is not required.

Please note that the tenderer should foresee a technical solution allowing to evacuate exhaust fumes from the rear (technical) compartment of the vehicle, for example, via the roof or a side of the vehicle.

The tenderer is not restricted to use a portable model of diesel generator as a stationary one, provided that all the above-mentioned considerations are taken into account. This question should be at the tenderer's discretion.

Additional Heater and Climate Control System, Section 1

Q5: If a heater is required to ensure ergonomic working space during winter? Please clarify if an additional air conditioner is required for summer?

A5: Heating (for example, WEBASTO type) in winter and air conditioning/climate control system for summer shall be available in both driver's cabinet and laboratory compartment.

Questions & Answers

The tenderer may use the additional air conditioner or foresee the design solution to provide air conditioning in both driver's cabinet and laboratory compartments. This question should be at tenderer's discretion.

GPS tracking system, Section 1

Q6: Please clarify if it would be acceptable if GPS tracking would be performed by using a WEB / server service from manufacturer?

A6: No. It is not acceptable for the Recipient, State Bord Guard Service of Ukraine.

The Mobile radiological complex shall be equipped with telematics equipment which allows integration with the departmental GPS monitoring system of SBGS.

Video surveillance system, Section 1

Q7: Please clarify if a simple video registration device with separate dual camera (Front and back) and removable SD card would be acceptable?

A7: Video surveillance system shall allow the operator to observe the environment from all sides of the vehicle (360 °) in real time. Video recorder shall be able to save video image to the storage media. Please refer to Section 1 of Specifications, item "Vehicle configuration/Video surveillance system".

Radio station, Section 1

Q8: Please clarify if PMR frequency radio devices are acceptable?

A8: No. PRM frequency is not acceptable for the Recipient (State Bord Guard Service of Ukraine). The Digital mobile radio (DMR) standard shall be used.

Air cleaning system, Section 1

Q9: Air cleaning system:

- a) **It should be mass production certified system integrated into car or filtration system made by supplier and tested by special laboratory?**
- b) **As in question 1 above it can be filter cartridges made by supplier and tested by special laboratory?**

A9:

- a) It may be any air cleaning system (against radioactive aerosols) selected by the tenderer, that meets the given technical requirements of Specifications and purpose of the contract. It should be a system separate from air conditioning system of the vehicle.
- b) It may be any filter cartridges selected by the tenderer, that will be commercially available for the Recipient during the warranty and post-warranty periods.

Winch, Section 1

Q10: Please clarify if front winch could be removable? Please clarify how a portable winch is intended to be used? Are any stands, holders, etc.

A10: As indicated in Section 1 of Specifications, two winches shall be supplied:

- stationary one, on the front reinforced bumper,
- portable one, located in the rear compartment.

The stationary winch to be fixed on the front reinforced bumper can be detachable or non-detachable, at the tenderer's discretion.

The portable winch is foreseen to be used to overcome difficult areas on rough terrain, e.g. to assist winching of a vehicle from behind, as well as to assist in the removal of obstacles on the way of the Mobile radiological complex.

The necessary winch connection devices (e.g. shackles, etc), extension cables for connection of the winch to the vehicle, and remote control equipment for safe operation of the portable winch shall be supplied as well.

Auxiliary equipment for post-detection activities, Section 11

Q11: Please clarify if we understood correctly:

- (a) Searchlight is a simple flood light with tripod mount, 220V powered?**
- (b) Tower – it is a simple portable tripod, suitable for floodlight?**
- (c) Hand lamp – Simple battery powered lamp?**
- (d) Are there any lighting required, that would be fitted on the vehicle?**

A11: Questions (a)- (c) are related to Section 12 of Specifications. Questions (d) is related to Section 1 of Specifications, item "Additional external lights". Please find clarifications below:

(a) Searchlight on the tower shall be sufficiently powerful to ensure the performance of works nearby the Mobile radiological complex at night time. LED lights shall be connected to power supply system of the vehicle (not from AC mains 220V).

(b) Yes.

For example:



(Photo source: www.direct-powertools.co.uk)

(c) The proposed hand lamp is suitable. It should be a rechargeable hand lamp charging from the vehicle's mains of 12 V.

(d) It should be a roof-mounted (or rooftop rack -mounted) spot-lights to illuminate the area around the entire perimeter of the vehicle: on four sides and corners of vehicle, with selective separate switching.

For example:



(Photo source: www.uk.motor1.com)



(Photo source: www.orl.com.ua)

Laboratory Compartment /Automated operator workplaces, Section 2

Q12: The PC should be understood as stationary PC or Laptop PC?

A12: The State Border Guard Service of Ukraine, the Recipient, recommends arranging the operators' workplaces (AWP) in the following way:

- One stationary PC: main AWP which is intended for the acquisition of data from all the devices of the Mobile radiological complex, its generalization, analysis, creation of analytical documentation and transfer of data to the head office of Luhansk border detachment for decision-making,
- One laptop PC: additional AWP to be used as an additional workplace for information processing or to replace stationary PC in case of its malfunction.

Q13: Wireless and keyboard and mouse should be included in set? In the same time wired devices for mobile laboratory will be better solution: peripheral devices don't jump in the field use, there is no need to search battery (based on experience).

A13: As indicated in Specifications, wireless and keyboard and mouse shall be supplied.

Q14: (a) Please clarify if the dividing wall is necessary? If yes, then please clarify if an audio and video communication means between driver cockpit and laboratory compartment should be provided?

(b) Should the overpressure system provide air to both volumes or just to laboratory compartment?

(c) Should there be two separate overpressure systems?

A14: These questions relate to Sections 1 of Specifications, item "Air cleaning system", and Section 2 of Specifications, item "Laboratory compartment".

(a) No. The wall between the driver's cabinet and laboratory compartment is not mandatory. If it is the case, audio/video communication means are not needed.

(b) The air cleaning system shall support the air pressure differential inside the vehicle: in the driver's cabinet and laboratory compartment. The air cleaning system should not cover the rear (technical) compartment.

(c) No. It is not requested in accordance with Specifications.

Decontamination equipment and detergents, Section 3

Q15: Please clarify which surfaces will have a contact with radioactive materials?

A15: Please refer to Section 3 of Specifications, item 'Purpose'.

The following surfaces may be contaminated by radioactive substances and shall be treated using the detergents included in the supply of vehicle for radiation monitoring and post-detection activities:

- (i) Skin of people,
- (ii) Equipment/vehicles (metal, rubber, glass, polymer surfaces, electronic equipment),
- (iii) Road surfaces and terrain (small areas).

Section 1, item "Other requirements/Resistance to decontaminating agents" implies that surfaces of the vehicle for radiation monitoring and post-detection activities which may come into contact with radioactive materials shall be manufactured from corrosion-resistant materials or have a surface coating (paint) which is resistant to decontaminating products: car body, floor of vehicle, interior of laboratory and technical compartments, top of table, shelves, door handles, etc.

Q16: Please clarify if a RSDL decontamination lotion for the skin is sufficient for the kit?

A16: This question relates to the Personal decontamination kits (30 pcs.) (Ref. to Section 3, item "Scope of supply", bullet 4).

Other sections of Specifications

Q17: Please clarify what certification is required? Should it be sold in Ukraine?

A17: In Section 1 of Specifications, item "Other requirements", and parts of Specifications it is stated that: "The equipment of the Mobile radiological complex shall be certified for use in Ukraine and/or in country of origin in accordance with the Ukrainian Legislation in force".

No. It is required that the equipment must be sold in Ukraine.

In accordance with the recent amendments to Ukrainian Technical Regulations on "Legally regulated measuring means" the certification of measuring instruments shall be carried out in the form of conformity assessment procedure.

In case of imported measuring instrument, the supplier (the importer) is liable for the observance of the Law on "Metrology" and implementation of the Clause 28 and other corresponding provisions of Technical Regulations on "Legally regulated measuring means" which imply the responsibility of the supplier (the importer) to make sure that the conformity assessment procedure has been carried out in relation to the supplied measuring instrument.

The Declaration of compliance and other necessary documents required in the country of origin are mandatory for the measuring instruments listed in Attachment 1 of Technical Regulations on "Legally regulated measuring means", which is relevant to a number of equipment to be supplied

within the Mobile radiological complex.

In case where the Conformity assessment procedure is not stipulated by the Ukrainian legislation, the provision of the Declaration of compliance and other relevant documents is not necessary. All these cases must be justified by tenderer with extracts from regulatory documents with accompanying translation into English language.

References are given to the following Technical Regulations of Ukraine:

<https://zakon.rada.gov.ua/laws/show/94-2016-п?lang=uk#n10>

<https://zakon.rada.gov.ua/laws/show/1314-18#Text>

Q18: Primary metrological verification, metrological verification is not valid in Ukraine since 2019. This term is not present in new metrological law of Ukraine. Therefore, this requirement is not correct anymore. It should be replaced with the “Certification according to Ukrainian Technical Regulations on “Legally regulated measuring means”.

A18: This question relates to the Clause 15.3 item (f) of Tentative contract and Sections 1 of Specifications, item “Metrological testing (verification)”, and other parts of Specifications.

In accordance with special requirement of the State Border Guard Service of Ukraine (the Recipient), prior to the shipment all measuring instruments shall successfully pass metrological testing (verification) at the accredited national metrological laboratory (scientific metrological centre) in Ukraine to confirm the main metrological characteristic of the supplied measuring instrument.

Metrological testing in Ukraine shall be acknowledged by corresponding document: certificate of metrological testing for measuring instruments, issued by an authorized metrological centre.

Final notes

Specifications to tender documents define the minimum technical requirements to equipment to be the supplied. The Tenderer’s technical proposal should meet or exceed the technical requirements of the Specifications.

Other parameters which are not prescribed by the Specifications are to be defined by the tenderer at his own discretion, taking into account the purpose of this contract.