

Under Vehicle Inspection System	 <b>IAEA</b> International Atomic Energy Agency	IAEA Specification Date: 2023-07-01
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## SPECIFICATION

### Supply and Installation of One (1) Under Vehicle Inspection System

#### 1. Scope

- 1.1. This Statement of Work describes the requirements and technical specifications for the supply and installation of one (1) Under Vehicle Inspection System (UVIS) for inspecting of vehicles accessing the State Enterprise "USIE Izotop" (SE USIE IZOTOP) site, hereinafter referred to as the "System".
- 1.2. The System will be installed at the Ukrainian State Enterprise "USIE Izotop" (SE USIE IZOTOP) located in Kyiv, Ukraine..

#### 2. Key Features, characteristics and Technical Requirements

- 2.1. The Contractor shall provide and install one (1) Under Vehicle Inspection System (UVIS) that shall comprise a scanning unit, a scan station (workstation), a start/stop sensor, a traffic light, cameras/scanners, a heavy-duty cover, and illuminators/lights.
- 2.2. The System, its related accessories, and all items required under this Specification shall comply with British, European or equivalent standards for this type of equipment and items.
- 2.3. The System shall meet following key features and characteristics:  
The System shall:
  - 2.3.1 Create high resolution colour images;
  - 2.3.2 Automatically detect foreign objects;
  - 2.3.3 Have continuous zoom-in-technology for inspection of finest details;
  - 2.3.4 Be capable of viewing full undercarriage including door sills;
  - 2.3.5 Have network connection capability and easy integration; and
  - 2.3.6 Have caution lights (red/green) light system.
- 2.4. The System shall meet following technical specifications:
  - 2.4.1. In ground housing, minimum dimensions (LxWxH): 100 x 100 x 9cm, high strength, aerospace-grade aluminium or stainless steel housing installed flush to the road's surface;
  - 2.4.2. The scanner shall have high intensity LED illuminators/lights strategically placed into the ramp capable of adequately illuminating underneath the vehicle during day and night time;
  - 2.4.3. The System shall have intelligent sensors to detect the vehicle presence and height;
  - 2.4.4. 3 to 4 full colour motion detection (minimum 1080 HD) IP inspection cameras capable of providing multiple angle views to show the entire undercarriage;
  - 2.4.5. Minimum 21-inch sunlight readable touchscreen full colour compatible with cameras output;

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- 2.4.6. Workstation – compatible to smoothly operate the system without any lag and hanging not less than core i7 quad core processor 3.2 Ghz, 8GB DDR3 memory to support the real-time high-resolution video with 1TB storage;
- 2.4.7. Complete in all respects, power cords, related accessories, installed with a neat, clean completely finished paint job and civil works;
- 2.4.8. The scanner should be installed with a proper draining system;
- 2.4.9. Maximum length of vehicles to be scanned: up to 20m, vehicles of all weight categories;
- 2.4.10. Capture speed: minimum 40km/hr;
- 2.4.11. Communication ports for integration/connection: RS 485, RS 232, TCP/IP;
- 2.4.12. Power: 220-230 V, 50/60Hz;
- 2.4.13. Track scanning width: up to 3m;
- 2.4.14. Operating temperature: - 40 C to + 40 C; and
- 2.4.15. IP68 rating

### 3. Under Vehicle (UV) Search Mirrors

- 3.1. The Contractor shall provide two (2) under vehicle search mirrors in addition to the System;
- 3.2. The UV search mirror shall meet the following features and specifications:
  - 3.2.1. Light weight;
  - 3.2.2. Telescopic handle rods 50-130cm;
  - 3.2.3. Mirror convex 35 cm;
  - 3.2.4. Lighting LED torch for illumination with clamp for installation on rod; and
  - 3.2.5. Wheels 5cm dia caster.

### 4. Testing and Packing

The System, for the shipment to the End-User, shall be packed in accordance with international standards that are applicable for the shipment for this kind of the equipment.

### 5. Quality Requirements

- 5.1. The System shall comply with British, European or equivalent manufacturing, installation and operation standards for this kind of equipment.
- 5.2. The Contractor shall provide confirmation of compliance with the above-mentioned standards.
- 5.3. All works related to the System, including but not limited to excavation, civil works, installation, electrical work, commissioning and paint job shall be of high quality, with a neat, clean and complete finish.

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5.4. The Contractor shall provide the End-User, all documents related to quality assurance, standard compliance and shipping documents with the System delivered.

## **6. Training of End-User**

- 6.1. The Contractor shall coordinate the installation plan with the End-User.
- 6.2. The Contractor shall install, configure, and commission the System in the presence of the representative/technician(s) identified by the End-User.
- 6.3. The Contractor shall provide the End-User training on the operation of the System.
- 6.4. The Contractor shall provide the End-User training on trouble shooting and minor maintenance of the System.

## **7. Operation Acceptance Report**

The Contractor shall provide to the IAEA; operation acceptance report duly signed by the End-User and the Contractor.

## **8. Delivery Terms**

The Contractor should ensure the availability and installation of the System within 2 months upon the receipt of IAEA Purchase Order.

## **9. Deliverable Data Items**

The Contractor shall provide the documents specified under Section 9.1 and 9.2, in English language, and if available and requested by the IAEA, in other IAEA languages.

- 9.1. Two complete sets of operation and servicing manuals.
- 9.2. Technical specification – Complete description of the System with general technical data and brochure, including configuration, compatibility, reliability and any other relevant information.

## **10. Warranty**

- 10.1. Starting from the date of acceptance of the operation of the System by the End-User, the Contractor shall provide one (1) year of full warranty.
- 10.2. The Contractor warrants that the System supplied under this Specification shall be new and free from defect in workmanship, material and design and shall operate in accordance with the manufacturer's most current standards.