



SPECIFICATION

Thermal Vision Cameras

1. Scope

This specification describes the requirements for **four (4) thermal vision cameras**, hereinafter referred to as the “System”, for Ukraine. The system will be used as part of nuclear security at the Rivne Nuclear Power Plant (RNPP).

The System is part of the equipment requested by Ukraine under the IAEA Technical Support and Assistance Plan with responsibilities for ensuring continued nuclear safety and security including emergency preparedness and response in relation to existing nuclear facilities and use of radioactive sources. The IAEA technical support and assistance for safety and security are focused on four areas: remote assistance, delivery of equipment, in-person assistance, and rapid deployment assistance. The provision of the system will be coordinated by the IAEA and delivered to Ukraine under the coordination of the Response and Assistance Network mechanism as well as other available mechanisms in the IAEA.

2. Requirements

2.1. Functional and Performance Requirements

The System shall consist of **four (4) thermal vision cameras** (Axis Q8752-E Bispectral Zoom or equivalent) that meets the following functional and performance requirements:

- 2.1.1. Combined thermal and visual camera
- 2.1.2. Pan, tilt, and zoom
- 2.1.3. Capability to preset positions
- 2.1.4. Electronic image stabilization on both thermal and visual channels

2.2. Technical Requirements

The System shall meet the following technical requirements:

- 2.2.1. Minimum illumination: 0.1 lux colour, 0.02 black and white
- 2.2.2. Operating temperature: -40 to 55 degrees C
- 2.2.3. Rated IP66
- 2.2.4. Video resolution up to 1920x1080
- 2.2.5. Pan 360 degrees
- 2.2.6. Tilt -90 to +45 degrees
- 2.2.7. Optical zoom: X32
- 2.2.8. Digital zoom: X12
- 2.2.9. Video compression: H.264, H.265, and Motion JPEG

3. Marking

The System shall have all safety markings in English language.



4. Packing

The System shall be packed in accordance with international standards that are applicable for this kind of equipment.

5. Quality Requirements

- 5.1. The System shall be manufactured, shipped and installed in accordance with the Contractor's ISO quality assurance system or an equivalent quality assurance system.
- 5.2. The Contractor shall document the compliance with this quality assurance system.

6. Testing and Acceptance

The System, prior to shipment, shall be tested for conformance of the System with manufacturer's performance specifications and the minimum requirements specified herein.

7. Deliverable Data Items

The Contractor shall provide one complete set of operation and servicing manuals and technical drawings in the English language.