



# Job Description Print Report

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## Position Review

Position Number	238556	Position Type	CFE/JPO	Subject to Radiation	No	Subject to GD	No
Hyperion Position Number	Associate Unattended Monitoring Systems Engineer	Fund Type	EBR	Parent Position	007397		
Organization	SGTS-Unattended Monitoring Systems Team	FTE	1	CCOG 1	1A05		
Grade	P2	Duty Station	DS - IAEA VIENNA	CCOG 2			
Classified Grade	P2	Position Title	Associate Unattended Monitoring Systems Engineer	Proposed New Title			
Master Version	2	Master Status	Awaiting Approval	Approval Date			
Position Version	1	Position Status	Awaiting Approval	Approval Date			

## Job Description Review

### Organization Settings

The Department of Safeguards carries out the IAEA's duties and responsibilities as the world's nuclear inspectorate, supporting global efforts to stop the spread of nuclear weapons. The primary role of the Department is to develop and implement IAEA safeguards to ensure that there is no diversion of declared nuclear material from peaceful activities and no indications of undeclared nuclear material or activities in a State as a whole.

The Department comprises nuclear safeguards inspectors, responsible for carrying out inspections and verifications of all-safeguards relevant information for nuclear facilities in over 180 States; and technical staff responsible for a wide range of activities including: developing concepts and approaches for implementing safeguards; developing and maintaining safeguards equipment; providing analytical and laboratory services for sample analysis; collecting, evaluating and analysing safeguards-relevant information; providing information and communication technology infrastructure and services; and providing programme coordination support.

The Division of Technical and Scientific Services ensures the provision of state-of-the-art equipment and related expertise for the accomplishment of the Department of Safeguards activities. Within this mandate, the Division is responsible for procurement, testing, provision, inventory control, performance monitoring and maintenance of safeguards equipment and supplies required by SGO Divisions; management of equipment development and engineering activities to meet quality and safeguards requirements; development and provision of documentation, procedures, instrumentation methods and techniques; provision of specialized technical and scientific support to inspectors and inspection activities in the field and at headquarters; and, radiation contamination monitoring of returned equipment and timely write-off of obsolete or contaminated equipment. The Division also coordinates departmental health and safety activities.

### Main Purpose

As a team member reporting to the Team Leader / Section Head, the Associate Unattended Monitoring Systems (UMS) Engineer contributes to the technical objectives of the team through activities such as the characterization and evaluation of radiation detectors, data reduction and analysis, and modelling UMS assembly, installation and maintenance of UMS systems in the field.

Role		
<p>The Associate UMS Engineer is a substantive contributor, applying radiation detection instruments and techniques to meet higher-level Safeguards objectives in nuclear fuel cycle facilities. The UMS Engineer also develops technical expertise in the design, development, characterization and testing of UMS systems as a part of SGTS technology development projects.</p>		
Partnership		
<p>The Associate UMS Engineer works closely with colleagues, providing support to other UMS engineers and inspectors, and by working with UMS Technicians to prepare for and execute instrumentation installations. Additionally, he/she acts as a technical point of contact for the Operation Divisions of the Safeguards Department, providing support and training to inspectors for UMS systems and techniques.</p>		
Functions / Key results Expected		
<p>With the overall aim to strengthen future safeguards implementations, the Associate UMS Engineer will:</p> <ul style="list-style-type: none"> <li>- contribute to the research and development of enhanced unattended monitoring instruments and techniques.</li> <li>- contribute to improvement of the reliability and accuracy of the data collected by UMS equipment, develop and undertake test programs both in the laboratory and in the field.</li> <li>- participate in the assembly and testing of UMS systems.</li> <li>- participate in the installation, maintenance and repair of UMS instruments at fuel cycle facilities around the world.</li> <li>- maximize the utility of UMS instruments, contribute to the development and testing of data reduction and interpretation algorithms specifically tailored to the needs of Safeguards Inspectors.</li> <li>- address on-going issues involving UMS equipment, act as a liaison with national laboratories and commercial equipment developers and manufacturers.</li> </ul>		
Generic JD Remarks		
Competencies		
Core Competencies		
Competency	Occupational Role	Definition
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen to and understand the perspectives of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Division's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section's priorities. Takes into account potential changes and proposes contingency plans.
Functional Competencies		
Competency	Occupational Role	Definition
Client orientation	Associate	Establishes effective relationships with clients to understand and meet or exceed their needs. Finds ways

		to ensure client satisfaction.
Commitment to continuous process improvement	Associate	Identifies opportunities for process, system and structural improvement as well as improving current practices, increasing effectiveness and achieving efficiency gains. Actively supports the application of sound quality management standards and process improvement.
Technical/scientific credibility	Associate	Acquires and applies new skills to remain up to date in his/her area of expertise. Reliably applies knowledge of basic technical/scientific methods and concepts.

<b>Expertise</b>		
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Expertise	Description	Asset
Information Technology Data Analysis	Knowledge of data evaluation, analysis, and interpretation for radiation detection systems.	N
Material Out of Regulatory Control Radiation detection and measurement	Ability to develop, evaluate, and/or implement various types of radiation detection equipment.	N
Safeguards Non-destructive Assay	Expertise in the use of computerized simulation tools (e.g. MCNP) in support of development and/or implementation of various NDA instrumentation (gamma detectors, neutron detectors, and coincidence counting systems).	N
Safeguards Nuclear Fuel Cycle/Nuclear Facilities	Working knowledge of the nuclear fuel cycle (e.g. enrichment facilities, various reactor types, reprocessing plants).	Y

<b>Position Specific FC</b>	<b>Occupational Role</b>	<b>Definition</b>
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<b>Position Specific Expertise</b>	<b>Description</b>	<b>Asset</b>
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<b>Languages</b>		
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Languages	Asset Languages
English	Arabic Chinese French Russian Spanish

<b>Qualification</b>	
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Qualification Title	Description
Bachelor's Degree	University degree in nuclear engineering, applied or nuclear physics, or a related field supplemented with training in areas relevant to detecting radioactive material, computer systems, or electronics design.

<b>Experience</b>
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Minimum of two years of cumulative working experience in the expertise areas listed above.