

Position Management Detail Report

Position Review

Position Number		Position Type	CFE	Subject to Radiation	Yes
Hyperion Position Number		Fund Type		Parent Position	
Organization	SG/IAEA	FTE	1	CCOG 1	
Grade	P5	Duty Station	Vienna	CCOG 2	
Classified Grade		Position Title	Nuclear Instrumentation Systems Expert	Proposed New Title	

Job Description Review

Organization Settings

The Department of Safeguards (SG) is the organizational hub for the implementation of IAEA safeguards. The IAEA implements nuclear verification activities for some 180 States in accordance with their safeguards agreements. The safeguards activities are undertaken within a dynamic and technically challenging environment including advanced nuclear fuel cycle facilities and complemented by the political diversity of the countries.

The Department of Safeguards consists of six Divisions: three Operations Divisions: A, B and C, for the implementation of verification activities around the world; three Technical Divisions: Division of Concepts and Planning, Division of Information Management, and Division of Technical and Scientific Services; as well as three Offices: the Office for Verification in Iran, the Office of Safeguards Analytical Services and the Office of Information and Communication Services.

Main Purpose

As a team member reporting to the Leader of the UMS Team, the Instrumentation Systems Expert provides professional expertise for the development and deployment of unattended non-destructive assay (NDA) systems. He/she participates in and leads the current medium-long term Research and Development projects that have been initiated internally or through Member State Support Programs, which include project planning, supervision, coordination with National Laboratories, prototype testing, system engineering, and field implementation of Unattended NDA systems. He/she also proposes new R&D projects in line with the Safeguards R&D strategic plan.

Role

The Instrumentation Systems Expert is: a project leader, ensuring the efficient and effective implementation of the development, installation, service and verification of UMS and supervising Team technicians; a technical specialist, advising the UMS Team Leader, technicians and other technical staff; an implementer, installing, calibrating and testing UMS; and an engineer, designing, developing, and assembling UMS.

Partnerships

This Instrumentation Systems Expert in the UMS Team provides guidance to the Team's technicians. He/she collaborates with the other technical professionals in the Team to develop and design the optimal UMS to address safeguards needs. He/she establishes links and engages with technical professionals and Section and Unit Heads from the Operations Divisions in the Department of Safeguards to determine the UMS needs and requirements of the Operations Divisions. He/she establishes, coordinates, negotiates, and manages technical collaborations with National Laboratories and other entities for the development and implementation of the R&D Programme through MSSPs.

Functions / Key results Expected

- Evaluate nuclear facilities throughout the world to determine the most effective UMS solution that could be applied in particular instances.
- Oversee the evaluation and testing of UMS prior to deployment, and deploy UMS at various nuclear facilities throughout the world.
- Participate with other Team members and the Team Leader in the development of new, advanced UMS technology, particularly NDA technology, data acquisition systems and front-end electronics.
- Lead medium-long term projects (R&D and/or Deployment) using internal resources or through MSSPs tasks.
- Draft and present clear and concise plans and presentations covering equipment and deployment strategy, sustainability, standardization, project management, implementation, maintenance and procurement needs, technical specifications and procedures.

Competencies

Core Competencies

Competence	Level	Behavioral Indicator
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	Level	Behavioral Indicator
Technical/Scientific Credibility	Specialist	Provides guidance and advice in his/her area of expertise on the application of scientific/professional methods, procedures and approaches.
Knowledge Sharing and Learning	Specialist	Identifies and establishes etc etc
Analytical Thinking	Specialist	Applies business analytics etc etc

Expertise

Expertise	Description	Asset
Engineering Non-destructive Assay	Experience in the design, development, testing and implementation NDA system used to verify the presence/absence, amount and unique characteristics of Pu/U/Spent Fuel.	N
Engineering Non-destructive Assay	Experience with the use of nuclear transport simulation codes (e.g. MCNP and SCALE)	N
Operations and Inspections	Experience with process control instrumentation for	Y

Nuclear Fuel Cycle/Nuclear Facilities	Nuclear Fuel Cycle facilities (e.g. fuel fabrication, reactors, reprocessing, spent fuel depositories).			
Engineering Project Management	Experience with managing projects, setting objectives and planning specific activities. Ability to identify and organize internal/external resources and monitor performance against very tight deadlines.			N
Information Technology Software Engineering	Thorough understanding of software engineering processes and the software engineering life cycle.			Y
Position Specific Expertise				
Position Specific Expertise		Description		
Languages				
Languages		Asset Languages		
English		Arabic		
		Chinese		
		French		
		Russian		
		Spanish		
Qualification				
Qualification Title		Description		
Master's Degree		Advanced university degree in physics, applied physics, nuclear engineering or electrical engineering, or plus four years of additional relevant experience in lieu of an advanced degree.		
Experience				
Cumulatively, a minimum of ten years of working experience in all of the Expertise areas listed.				
A minimum of seven years of experience in the use and maintenance of NDA instrumentation experience, preferably with instrumentation similar to that used in IAEA Unattended Safeguards applications.				
A minimum of five years experience in the use of nuclear reaction simulation codes.				
A minimum of five years experience in the management of technical project.				
Strong interpersonal skills with the ability to work effectively and efficiently on multiple projects simultaneously, in multidisciplinary/multicultural teams, with sensitivity and respect for diversity				
Job Description Remarks				
Requisition				
Contract Type	Fixed Term - Cost Free Expert	Expected Start Date	Travel	Duration
			Yes, 25 % of the Time	