



Job Description

Instrumentation Specialist(P4) - (2018/0167 (007562))

Organization SGTs-Unattended Monitoring Systems Team
 Primary Location Austria-Vienna-Vienna-IAEA Headquarters
 Posting Date 2018-03-07, 1:02:24 PM
 Closing Date 2018-04-21, 10:59:00 PM
 Duration in Months: 36
 Contract Type: Fixed Term - Regular
 Probation Period: 1 Year

Organizational Setting

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. The Division of Technical and Scientific Services (SGTS) is the departmental branch for nuclear and other measurement systems applied in verification activities, containment and surveillance techniques and all verification logistics. Within the Department of Safeguards, the Division of Technical Support is responsible for the development and implementation of the Department's equipment systems. The Section for Unattended Systems (TUS) is responsible for the full development, assembly, testing, implementation and maintenance cycle of all measurement and surveillance systems to be permanently installed and operating in unattended mode at nuclear facilities worldwide. The Section is comprised of two specialized teams (technical units): Surveillance and Unattended Monitoring Systems.

Main Purpose

As a team member reporting to the Leader of the Unattended Monitoring Systems (UMS) Team, the Instrumentation Specialist provides professional expertise for the development and deployment of unattended non-destructive assay (NDA) systems. He/she participates in and leads a team of technicians in the UMS Team in the planning, supervision and implementation of these installation activities, which include cradle-to-grave responsibility for unattended monitoring systems.

Role

The Instrumentation Specialist is: a team 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.

Functions / Key Results Expected

Provide effective engineering solutions for UMS using existing data acquisition and measurement systems.

Install, calibrate, and test UMS at various nuclear facilities throughout the world.

Repair, maintain and address operational problems of existing UMS installed throughout the world.

Participate with other Unit members and the Unit Head in the development of new, advanced UMS technology, particularly NDA technology and data acquisition systems.

Develop and write the required quality management system (QMS) documents, testing and calibration procedures for equipment, and trip reports that detail the installation, repair, design or calibration of UMS installed at nuclear facilities.

Evaluations of nuclear facilities throughout the world to determine the most effective UMS solution that could be applied in particular instances.

Provide expert advice and support to the three Operations Divisions to determine implementation requirements and ensure that all requirements are satisfied within available resources.

Oversee the evaluation and testing of UMS and relevant components prior to deployment in the field.

Draft and present clear and concise plans and presentations covering strategy, sustainability, standardization, project management, implementation, maintenance and procurement needs, technical specifications and procedures.

The incumbent may perform his/her work in areas involving exposure to radioactive materials. Therefore, as an Occupationally Exposed Worker, he/she must be medically cleared by VIC Medical Service and is subject to an appropriate radiation and health monitoring programme, in accordance with the IAEA's Radiation Safety Regulations.

Competencies and Expertise

Core Competencies

Name	Definition
Planning and Organizing	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.
Communication	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	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	Actively contributes to achieving team results. Supports team decisions.

Functional Competencies

Name	Definition
Client orientation	Helps clients to analyse their needs. Seeks to understand service needs from the client's perspective and ensure that the client's standards are met.
Judgement/decision making	Consults with supervisor/manager and takes decisions in full compliance with the Agency's regulations and rules. Makes decisions reflecting best practice and professional theories and standards.

Technical/scientific credibility Ensures that work is in compliance with internationally accepted professional standards and scientific methods. Provides scientifically/technically accepted information that is credible and reliable.

Qualifications, Experience and Language skills

Master's Degree - Advanced university degree in physics, applied physics or electrical engineering.

Minimum of seven years of work experience in the development, deployment, production or use of nuclear NDA instrumentation, including some experience with IAEA instrumentation.

Experience with nuclear NDA safeguards equipment support.

Experience in the set-up, diagnostics and troubleshooting of IAEA NDA instrumentation and data acquisition computer set-up and configuration.

Detailed design, development or implementation experience with nuclear detectors and related data acquisition systems applied to safeguards NDA, such as high resolution gamma, low resolution gamma and neutron counters.

Demonstrated experience in computer data acquisition systems applied to NDA instruments.

Demonstrated experience with unattended monitoring software for NDA, such as FRAM, INCC and MIC.

Experience in modelling complex gamma and neutron detector systems, such as with MCNP(X) or Ensslin FOM.

Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, English, French, German, Russian and Spanish) is an asset.

Remuneration

The IAEA offers an attractive remuneration package including a tax-free annual net base salary starting at **US \$71332** (subject to mandatory deductions for pension contributions and health insurance), a variable [post adjustment](#) which currently amounts to **US \$ 38234***, dependency benefits, [rental subsidy](#), [education grant](#), [relocation](#) and [repatriation expenses](#); 6 weeks' annual vacation, [home leave](#), [pension plan](#) and [health insurance](#)

Applications from qualified women and candidates from developing countries are encouraged

Applicants should be aware that IAEA staff members are international civil servants and may not accept instructions from any other authority. The IAEA is committed to applying the highest ethical standards in carrying out its mandate. As part of the United Nations common system, the IAEA subscribes to the following core ethical standards (or values): [Integrity](#), [Professionalism](#) and [Respect for diversity](#). Staff members may be assigned to any location. The IAEA retains the discretion not to make any appointment to this vacancy, to make an appointment at a lower grade or with a different contract type, or to make an appointment with a modified job description or for shorter duration than indicated above. Testing may be part of the recruitment process
