IAEA

Job Description Print Report

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Position Review

Position Number	161618	Position Type	CFE/JPO	Subject to Radiation	Yes	Subject to GD	No
Hyperion Position Number	R0005	Fund Type	EBR	Parent Position	018049|Acting Team Leader (SG-PET)|6		
Organization	SGTS-Project Engineering Team	FTE	1	CCOG 1	1B07B		
Grade	P5	Duty Station	Vienna, Austria	CCOG 2			
Classified Grade		Position Title	Senior Project Engineer	Proposed New Title			
Master Version	2	Master Status	Approved	Approval Date			
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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 over 180 States in accordance with their safeguards agreements. The main objective of the Department is to maintain and further develop an effective and efficient verification system in order to draw independent, impartial and timely safeguards conclusions, thus providing credible assurances to the international community that States are in compliance with their safeguards obligations. Safeguards activities are undertaken within a dynamic and technically complex environment including advanced nuclear fuel cycle facilities and complemented by the political and cultural diversity of the countries.

The Department of Safeguards consists of six Divisions: three Operations Divisions 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); and three Offices (the Office for Verification in Iran, the Office of Safeguards Analytical Services and the Office of Information and Communication Services).

Within the Office of the Deputy Director General, Head of the Department of Safeguards, the Section for Safeguards Programme Coordination serves as the principal advisory body in support of the entire management of the Department including formulation and execution of departmental management policies and procedures. The Section provides internal coordination and support in the areas of programme and budget, human resources, performance monitoring, effectiveness evaluation, communication, reporting and project support.

The Division of Technical and Scientific Services (SGTS) is responsible for measurement systems applied in safeguards verification activities, containment and surveillance

techniques and all verification logistics.

The Systems Integration and Coordination Section (TSI) comprises three teams (technical units): Project Engineering; Remote Monitoring and Seals. This Section acts as the Division's focal point for broad based support needed by the Operation Divisions in instrumentation data processing and review, remote data collection, development and application of sealing, containment and instrument security technologies, as well as Project Management and System Integration support. The Section is also responsible for maintenance, enhancement and quality assurance of the divisional infrastructure.

Main Purpose

As a team member reporting to the Team Leader, the Senior Project Engineer develops conceptual designs for safeguards systems, and carries out peer review for technical designs of NDA subsystems, He/She provides expert advice on integration methodologies and best practices, ensures that all system interface definitions for the various technical subsystems are in place, and ensures that performance of the integrated systems is consistently reliable.

Role

The Senior Project Engineer is: (1) a systems engineer who reviews the systems designs for complex facilities, and advises teams on integration issues that must be addressed, (2) a project coordinator, initiating, planning, executing and controlling agreed work; (3) a liaison among teams within the Department, as well as with external partners, for the allocation of appropriate resources, and (4) a coordinator of the various technical services and activities within these facilities.

Partnership

As a member of the Project Engineering Team, the Senior Project Engineer provides best practices guidance and/or support to SGTS project leads for assigned tasks. The incumbent coordinates his/her work with other teams of the Section and Division, and with other Divisions within the Department of Safeguards. The incumbent will also liaise with the Offices of Procurement and Legal Affairs, with senior IAEA staff, Member State Support Programme staff, and facility operators.

Functions / Key results Expected

The incumbent contributes technical advisory expertise to both integrated systems and equipment development projects, and plays an important role in technical coordination and reaching agreement on the unified approach to systems development and integrations between different technical teams, both from within the IAEA and outside. In particular, the incumbents primary responsibility is to assist the designated project manager in ensuring that the all subsystems are completed and integrated in a timely manner in order to reduce start-up delays for new facilities. This will lead to a reduction in inspection and technician effort for such facilities.
The incumbent will:

Develop conceptual designs for complex safeguard systems;

Act as a Peer Reviewer on subsystem designs developed in cooperation with the specific subsystem Task Officers.

Work with Operations to properly define systems integration goals for large/complex facilities, and identify technical expertise necessary for development, testing and implementation of specific functions/subsystems.

Serve as primary technical advisor on integration of all sub-systems, provide best practice advice and develop and present the most efficient integration approaches and methods.

Catalogue all infrastructure requirements for the subsystems, provide reports on this for transmission to both the project manager and facility operator, and track any changes in the requirements.

Develop Risk Registry for the new systems, and work with project subsystem leads to minimize the risks.

Ensure that the initial performance of the integrated system meets the defined requirements, and that all needed corrective actions are performed.

Ensure that proper closeout practices are followed by all project team members. This would include the development of system documentation, maintenance plans, and training materials for both end users and designated maintenance staff.

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	Specialist	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	Specialist	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	Specialist	Ensures that work is in compliance with internationally accepted professional standards and scientific methods. Provides scientifically/technically accepted information that is credible and reliable.
Expertise		
Expertise	Description	Asset
Position Specific FC	Occupational Role	Definition
Position Specific Expertise	Description	Asset
Languages	Asset Languages	
English	Arabic Chinese French Russian Spanish	
Qualification		
Qualification Title	Description	

Master's Degree	Advanced University degree, preferably in Physics, Nuclear Engineering, or Electrical Engineering.

Experience

At least 10 years of relevant experience, which should include experience with gamma and neutron detection systems, computer interfacing to data acquisition systems, data acquisition electronics design, and data collection equipment.

At least 5 years of working experience in Project Management, Systems Engineering, or both

Familiarity with project management principles as described by PRINCE2 or PMI; certification a plus.

Demonstrated experience with the integration of multiple nuclear instruments into a system is required.

Familiarity with the concepts of international safeguards, preferably with experience in safeguards implementation.

Demonstrated experience in project management, with experience in the use of project management tools such as MS Project.

Demonstrated experience in system integration, preferably in a large-scale operational environment; preferably in the integration of multiple data sources into a common acquisition platform, as well as the subsequent analysis of the data for performance and state of health issues.

Detailed knowledge of available NDA techniques for the detection and characterization of nuclear and radioactive materials is required, and expertise in techniques relevant to automatic (unattended) NDA systems is preferred.

Job Description Remarks