

TITLE: Remote Handling - Mechanical and system Engineer		TKM-063
REPORTS TO LINE MANAGER: Remote Handling Section Leader Tokamak Department		
DIRECT EMPLOYMENT: NOT REQUIRED		GRADE RANGE: P3-P4
DATE WRITTEN: December 2007	DATE REVISED:	DATE REVISED:

Purpose:

- Supports the Leader for the Maintenance Group in matters related to Remote Handling design, R&D, procurement specification preparation and procurement project management, including coordination of international cooperation on remote handling equipment procurement. Implements and uses all the tools necessary to successfully manage the project. Enforces and maintains effective configuration control on associated systems. Provides effective cost/schedule/procurement management. Enforces and maintains QA program and safety requirements. Effectively interfaces with the Domestic Agencies and coordinates Field teams.

Main Duties/Responsibilities:

- Supports the Remote Handling Section Leader in all matters related to the management and technical coordination/integration of the project;
- Ensures that the Remote Handling design meets the requirements of the ITER machine;
- Manages the Remote Handling equipment design, R&D, procurement specification preparation;
- Coordinates international activities related to remote handling equipment procurement;
- Develops and maintains the general technical specifications for procurements;
- Enforces and maintains effective configuration control on associated systems;
- Effectively interfaces with ITER Domestic Agencies responsible for procurement;
- Technically coordinates horizontal integration activities within the project and executes the integral system design and analysis;
- Shows a strong commitment to the ITER safety program and enforces it through individual behaviour and in work organisation;
- Maintains a strong commitment to the implementation and communication of ITER goals and ethics.

Qualifications and Experience:

- More than 5 years experience in the technical integration/coordination for the construction of large (science or industry) projects;
- University degree (preferably higher) in engineering, technology or equivalent;
- Excellent knowledge of the English language, both written and spoken;
- Good technical and managerial experience in the field of fusion technology and/or nuclear devices. Working experience at one or more major fusion reactor device(s) is an advantage;
- Ability to coordinate the key areas of remote handling equipment usage for maximum reliability and efficacy;
- Ability to suggest and implement modifications to the ITER machine components and to the remote handling equipment to achieve successful remote maintainability;
- Ability to plan and find effective solutions for preventative remote maintenance (including associated logistics requirements and solutions);
- Ability to plan and find effective solutions for ITER machine “housekeeping” operations (inspections, measurements, cleaning, etc.);
- Ability to plan and find effective solutions for any foreseeable remote handling equipment repair, recovery;
- Good knowledge and ability to use a) Failure Mode Effect Analysis (FMEA) and rescue for complex systems, b) Reliability, Availability, Maintainability, Inspectability (RAMI) Analysis, c) Fault Tree Analysis (FTA);
- Experience in the design, analysis and integration of remote operated / robotic systems for maintenance of fusion and/or nuclear devices;
- Experience in the assessment of remote operations logistics requirements and finding solutions for large scale, complex remote handling maintenance campaigns;
- Experience in preparing and monitoring design, research and/or manufacturing contracts in an international environment;
- Experience in the area of remote maintenance systems implementation, optimisation through testing, usage of remote handling equipment;
- Experience in the design and testing of viewing and inspection systems for fusion applications is an advantage;
- Experience in the assessment of functional requirements of a fusion reactor’s Hot Cell is an advantage;
- Knowledge of remote handling systems control system is an advantage;
- Knowledge of radiation hardness requirements and testing experience is an advantage.

Work Management structure and Interfaces:

- Reports to the Remote Handling Section Leader. Interfaces with all other departments within the ITER Organization as required.

Authority/Approval Levels:

- Has authority and approval levels generally defined by the DDG for his/her scope of work.

Measures of Effectiveness:

- Successfully communicates with the ITER machine component designers to optimise both component and remote maintenance equipment design and performance;
- Successfully supports Remote Handling & Maintenance colleagues;
- Successfully completes the tasks assigned under “Main Duties / Responsibilities” above.