

TITLE: Magnet Analyst		TKM-085
REPORTS TO LINE MANAGER: Leader of Superconductor Systems and Auxiliaries Section, Magnet Division, Department for Tokamak		
DIRECT EMPLOYMENT: REQUIRED		GRADE RANGE: G4-G5
DATE WRITTEN: July 2008	DATE REVISED:	DATE REVISED:

Purpose:

- To work under the supervision of professional engineers, provide computational analysis support for mechanical and superconducting systems.

Major Duties/Responsibilities:

- Carries out finite element stress and thermal analysis, as required by the division;
- Develops and supports special purpose codes for superconductor performance analysis and fluid flow;
- Posts process analysis results to allow interpretation of the results;
- Prepares analysis reports;
- Realizes benchmark analysis codes and numerical models;
- Works with CAD designers to obtain geometric data for numerical analysis meshes, and develops mesh to suit analysis type;
- Assists with the generation of technical reports and documents;
- Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics.

Qualifications and experience:

- **Education:**
 - Recognized qualification (degree, diploma or similar) in Mathematics, Physics or a related discipline;
- **Experience:**
 - As a numerical analyst, with a minimum of 10 years' experience in a similar position in a large multidisciplinary project or institute;
 - Of computational numerical analysis techniques;
 - Of finding practical solutions to engineering problems using numerical analysis;
- Knowledge of commercial codes for engineering analysis, such as those for stresses, heat and fluid flow and/or electromagnetics;
- Knowledge of computer programming languages applied in numerical analysis.
- Demonstrated ability to produce high quality results;
- Strong interpersonal skills to work effectively in an international environment;
- Ability to work with a high level of autonomy.
- **Language requirements:**
 - Good communication skills in written and spoken English.

Work Direction and Interfaces:

- Reports to Leader of Superconducting Systems and Auxiliaries Section;
- Interacts with all members of the Magnet Division.

Authority/Approval Levels:

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

Measures of Effectiveness:

- Successfully provides efficient and high quality service to the Magnet Division members;
- Successfully establishes a good collaborative attitude with all members of the Division and with other Divisions and Departments.