EFDA

European Fusion Development Agreement

EFDA Leader

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Re: MQT/IP-0602
Date: 10 January 2006

To the Heads of Research Units in EU Fusion Associations and
to the Representatives of the new associated countries
To: MM. D. Gambier, Y. Capouet

Extension of deadline for vacancies at EFDA CSU Garching

Dear Colleagues,

In my letter of 28th November 2005, I have kindly asked you to nominate candidates for EFDA CSU Garching openings. However, the proximity of the Season's holidays may have not allowed you to find in time suitable candidates.

I would therefore like to extend the deadline for submission of applications to January 31st 2006.

For your convenience, I am also enclosing the job descriptions of the open positions.

I thank you for your kind collaboration and remain

Faithfully yours,

Prof. Minh Quang TRAN
EFDA Leader

Annex: 8 job descriptions

DESCRIPTION OF THE POSITION

- Title of the Position: Responsible Officer of the Fuel Cycle

- EFDA Unit, Field or Area: Tritium Breeding and Materials

The Fuel Cycle programme includes preparation, installation and commissioning of the main components of the ITER Fuel Cycle such as Vacuum Pumping, Fuelling and Tritium Plant as well as updating of the process design to cater for any newly identified operating conditions and definitions of interfaces involving tritium transfers to/from systems external to the Fuel Cycle. In addition, support to licensing activities will be given through additional studies and R&D necessary to validate the design.

Responsibilities

- Assisting the EFDA Field Coordinator for 'Tritium Breeding and Materials' in the definition of the main objectives of the technology programme;
- Implementing all the documentation (task summary sheets, preferential support, progress reports, final reports, etc.);
- Coordination of the work programme between ITER IT and EU PT;
- Managing and monitoring the tasks and contracts assigned to Associations and Industry;
- Promoting with the EFDA Field Coordinator and the EU Task Coordinators ad-hoc meetings and workshops on specific subjects.

Competencies

- Understanding of the behaviour of hydrogen isotopes in materials used in fusion applications;
- Experience in the safe handling of radioactive and contaminated materials, e.g. by tritium; and/or in the areas of nuclear and fusion technology, e.g. the pumping properties of various techniques used for transfer of tokamak exhaust gases, is preferred.
- Experience in the preparation, implementation and monitoring of large contracts. Some experience with the operation of the EFDA system would be appreciated;
- Ability to communicate efficiently within an international and multidisciplinary team.

Qualifications

- University degree in engineering or nuclear technology or equivalent;
- Good knowledge of the English language, both written and spoken;
- Knowledge of further languages would be an asset.

In addition, the interested Responsible Officer shall be willing to take on other duties within the field "Tritium Breeding and Materials". The Responsible Officer will work in Garching.

DESCRIPTION OF 2 POSITIONS

- Title of the Position: Responsible Officer for Remote Handling and Maintenance
- EFDA Unit, Field: Vessel/In-Vessel (TV); Area: Remote Handling (TVR)

Responsibilities

- Support to the Field Coordinator by providing regular and ad-hoc status and summary information, and by assisting in the overall planning of activities;
- Support to the ITER International Team in the areas of design, analysis and R&D definition for Remote Handling and Maintenance Equipment;
- Definition and management of design, manufacture and/or R&D tasks or contracts assigned to Associations and Industry in relation to the European Technology programme administered by EFDA-CSU;

Qualifications

- University degree in engineering, technology or equivalent;
- Good knowledge of the English language, both written and spoken;

Competencies

Experience of one or more of the following would be an advantage:

- Design, analysis and integration of remotely operated / robotic systems for maintenance of fusion and/or nuclear devices;
- Preparation and monitoring of design, research and/or manufacturing contracts in an international environment;
- Radiation effects on materials and components;
- Development and/or utilization of cutting, welding and NDE equipment operating under remote or semi-remote conditions;
- Viewing and metrology systems.

The two Responsible Officers for Remote Handling will work in Garching, Germany.

DESCRIPTION OF THE POSITION

- Title of the Position: Responsible Officer for TVD Divertor and Limiter
- EFDA Unit, Field or Area: Vessel/In-Vessel

Responsibilities:

- Definition of design and R&D tasks to be carried out as a support to the ITER design and R&D work in the area of the Divertor and Limiter;
- Liaison/Responsible Officer for Tasks and Contracts in the framework of the European Technology programme;
- Liaison with the ITER International team for divertor and limiter related matters.

Competencies:

- A general understanding of fusion technology, divertor and limiter objectives and requirements;
- Experience in mechanical engineering, design, manufacturing and assembly;
- Knowledge of the main technology areas associated with divertors and limiters;
- Experience in the design and fabrication of plasma-facing and high heat flux components;
- Experience in the preparation, implementation and monitoring of contracts.

Qualifications:

- University degree in mechanical or nuclear engineering or equivalent;
- Minimum of five years of relevant experience;
- Good knowledge of the English language, both written and spoken.

The Responsible Officer will work in Garching, Germany.

DESCRIPTION OF THE POSITION

- **Title of the Position:** Responsible Officer for Assembly

- **EFDA Unit, Field or Area:** Field : Vessel/ In Vessel
  Area: Assembly

- **Responsibilities:**
  - Coordination of all activities in the area of assembly and direct liaison with the ITER team on such aspects;
  - Liaison/Responsible Officer for Tasks and contracts in the framework of the European Technology programme for the "Assembly" area;
  - Liaison with the ITER design and system integration teams during the finalisation of the ITER design to include the implications from the assembly point of view;
  - Contribution to the preparation of an assembly plan, to the definition of the assembly procedures and to the identification of the implications originating from the assembly operations;

- **Competencies:**
  - Knowledge of assembly engineering issues for large nuclear installations and possibly practical experience in such a field;
  - Project management skills and experience in the area of system integration of the components in a fusion device;

The assembly engineer will work in Garching (Germany).

DESCRIPTION OF THE POSITION

- **Title of the Position:** Responsible Officer for Assembly

- **EFDA Unit, Field or Area:** Field: Vessel/ In Vessel
  Area: Assembly

- **Responsibilities:**

  - Coordination of activities in the area of assembly with special attention to the area of welding and direct liaison with the ITER team on such aspects;

  - Liaison/Responsible Officer for Tasks and contracts in the framework of the European Technology programme for the "Assembly" area;

  - Liaison with the ITER design and system integration teams during the finalisation of the ITER design to include the implications from the manufacturing, assembly and welding point of view;

  - Contribution to the preparation of an assembly plan, to the definition of the assembly and welding procedures and to the identification of the implications originating from the assembly and welding operations;

- **Competencies:**

  - Knowledge of assembly engineering issues for large nuclear or similar installations and possibly practical experience in such a field;

  - Possess an appropriate degree level engineering qualification, preferably in metallurgy or a welding engineering discipline, combined with significant industrial experience within the welding field. An advantage would be experience also in the welding of large structures, welding inspection and the control of distortion. Have experience of national and international welding standards, quality systems and project management;

  - Project management skills and experience in the area of system integration of the components in a large engineering device;

The assembly engineer will work in Garching (Germany).

DESCRIPTION OF THE POSITION

- Title of the Position: Project Leader
- EFDA Unit, Field or Area: Heating and Systems Technology Project

The field Heating and Current Drive System includes the technology areas:

- Neutral Beam
- Electron Cyclotron (power supplies, RF sources and related auxiliaries and services)
- Ion Cyclotron (power supplies, RF sources and related auxiliaries and services)
- Lower Hybrid (power supplies, RF sources and related auxiliaries and services)
- Steady State and Pulsed Power supplies

The activity focuses on the co-ordination of the European research and development programmes in those areas in the framework of the development of Fusion and aimed at the ITER project in particular.

Responsibilities:

The successful candidate will report directly to the EFDA Associate Leader for Technology.

- Manage a project team: workload, work organisation, schedules, priorities, evaluation of performances of team members.
- Provide effective leadership for the project team
- Guide and follow up Sub-contracted staff and Association staff in charge of task activities and review their deliverables.
- Elaborate project strategies and planning, define tasks and deliverables, quality control, risk analysis and management, status reports, problem reporting and management systems, project planning, follow-up and organisation.
- Prepare and maintain project plans and track activities against the plan, provide regular and accurate reports.
- Monitor costs, time scales and resources used, and take/propose action where these deviate from agreed tolerances. Ensure that delivered systems are implemented within these criteria.
- Report on the team activities and maintain scoreboard.
- Establish and maintain contacts with partners from various institutions.
- Analyse and elaborate organisation and working procedures, give presentations on key aspects of project strategy.
- Be responsible for liaising with the ITER Team in relation to interface and integration of the H&CD systems and power supplies systems in the ITER machine.
- Be responsible for the preparation of calls for tender for procurements contract and participate in the selection process, including technical and financial negotiations.
- Supervise contract performance.
- Evaluate outcomes.

Competencies:

- Experience in the co-ordination and management of multidisciplinary R&D projects and procurement contracts: definition of the overall activity, preparation of specifications, co-ordination and close monitoring of the R&D activities.
- Specific experience in Fusion is required and in the technology areas of the Heating System Project is preferred.
- Experience in the monitoring/supervision of multinational projects and supply contracts with external organisations and industrial companies is required.
- The capability to work in multinational/multicultural Teams and previous experience in the participation and co-ordination of international projects is essential.

She/he will have to be able to master, at least at conceptual level, a wide range of topics in the technology areas of the Heating System Projects and, un general, in multidisciplinary projects.

Qualifications:

- University degree in engineering or equivalent;
- Good knowledge of the English language, both written and spoken;
- A job-related experience of at least 15 years is required

The Project Leader for Heating Systems and Technology will work at Garching, Germany.

DESCRIPTION OF THE POSITION

- Title of the Position: Officer for Administration
- EFDA Unit, Field or Area: Administration

Responsibilities:

Assisting the EFDA Head of Administration / Project Control in the following duties of the EFDA Administration (financial / personnel / contractual and procurement functions):

- Drawing up of budgets with respect to personnel / host laboratory costs
- Monitoring and controlling of budget, accounting
- Preparation of ad-hoc financial commitment reports and the EFDA statements of accounts
- Preparation and issue of call for tenders; monitoring of tender process; participation in the tender evaluation
- Contract negotiation and preparation
- Contractual monitoring
- Personnel administration

Quality assurance of tender processes and the resulting proposals of the EFDA Leader for awarding contracts

Required Competencies:

- general administration knowledge and experience, in particular in the areas of accounting and controlling as well as legal and contractual matters
- Fluency in English
- Good writing ability in English

Qualifications:

- Willingness to get acquainted and to deal with the various fields within the EFDA Administration
- University degree in law, economics or equivalent

The Officer will report to the Head of Administration / Project Control and work at EFDA CSU Garching.

DESCRIPTION OF THE POSITION

- Title of the Position: Mechanical Engineer
- EFDA Unit, Field or Area: Heating Systems Technology

The field Heating and Current Drive System includes the technologies areas:

- Neutral Beam
- Electron Cyclotron (power supplies, RF sources and related auxiliaries and services)
- Ion Cyclotron (power supplies, RF sources and related auxiliaries and services)
- Lower Hybrid (power supplies, RF sources and related auxiliaries and services)
- Steady State and Pulsed Power supplies.

The activity focuses on the co-ordination of the European research and development programmes in those areas in the framework of the development of Fusion and aimed at the ITER project in particular.

Responsibilities

The successful candidate will report directly to the Heating and Current Drive System Field Leader.

- Liaison Officer for tasks and contract in the framework of the European Technology Programme in the Heating and Current Drive Systems, H&CD (Neutral Beam, Electron Cyclotron, Ion Cyclotron, Lower Hybrid Systems);
- Liaison with the ITER Team in relation to interface and integration of the H&CD including their power supplies systems in the ITER machine;
- Tracking of activities against the plan, supervision and monitoring of progress and fulfillment of objectives, provision of regular and accurate reports, Analysis and evaluation of results;
- Contribution to the preparation of technical specifications for procurement of H&CD and thermo-mechanical aspects of power supplies components and system;
- Assisting the EFDA Field Coordinator for 'Heating and Current Drive Systems' in the definition of the work programme;
- Assisting the EFDA Field Coordinator in managing task teams: workload, work organisation, schedules, priorities.

Competencies:

- The successful candidate will have a sound general knowledge of mechanical engineering. The main areas of work, for which specific experience is required, will be: High Heat Flux Components and Vacuum Technology.
- Experience in the design, manufacture and commissioning and procurement of high technology mechanical components/equipments is essential. Some knowledge of cryogenic systems will be an advantage.

- Experience in structural thermo-mechanical analysis (e.g. with ANSYS) will be valuable.
- Experience in supervision of draughtsmen and of the CATIA system is preferred.
- She/he will have the capability and flexibility to tackle, at least at conceptual level, a wide range of topics in mechanical engineering and to contribute to multidisciplinary projects.
- The capability to work in multinational/multicultural Teams is important. Previous experience in the participation and co-ordination of international projects is preferred.

Qualifications:

- University degree in mechanical engineering equivalent;
- Good knowledge of the English language, both written and spoken;
- Previous experience in similar roles would be an asset

The Mechanical Engineer will work in Garching, Germany.