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Technical Specifications (In-Cash Procurement)
Engineering Work to Monitor all the Magnet-related PAs
for ITER

Engineering Work to Monitor all the Magnet-related PAs for ITER

<i>Approval Process</i>			
	<i>Name</i>	<i>Action</i>	<i>Affiliation</i>
<i>Signatory</i>	Foucher de Brandois C.	19 Dec 2013:signed	IO/DG/DIP/TKM/MAG
<i>Co-signatories</i>			
<i>Reviewers</i>	Romano G.	19 Dec 2013:recommended	IO/DG/DIP/TKM/MAG/SSA
<i>Approver</i>	Devred A.	19 Dec 2013:approved	IO/DG/DIP/TKM/MAG/SSA
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<i>RO: Foucher de Brandois Cecile</i>			
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CONTRACT TECHNICAL SPECIFICATION

**Engineering Work to Monitor all the Magnet-
related PAs for ITER**

Technical Specification

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1 Abstract

This technical specification describes engineering work to monitor all the Magnet-related Procurement Arrangements for ITER.

2 Background and Objectives

ITER superconducting magnet system consists of 18 TF coils, 6 PF coils, a Center Solenoid (CS), 18 Correction Coils (CC) and a Feeder System. In order to build up this complex system an agreement – Procurement Arrangement (PA) - between the ITER Organization (IO) and each of the six Domestic Agencies (DA) authorizing work for the development and manufacturing of the ITER magnet installation has been signed.

The PAs are the main documents by which the ITER Organization authorizes work, and the tool that is the basis of collaboration between the IO and the Domestic Agencies.

Sometimes the procurement of one component is shared among multiple DAs. In other cases, sub-components from one DA may be delivered to others in the supply chain for integration, as in the case of the TF conductors. These conductors are built by six DAs and delivered to winding lines established by two DAs.

With such complex sharing schemes, a clear management infrastructure and close collaboration are necessary in order to ensure all are on the same page regarding issues like quality control, regulatory requirements, risk management, logistics, acceptance testing and schedule requirements.

In this respect any work conducted under Procurement Arrangements will have to follow the ITER project infrastructure established to ensure full and proper integration at all technical and organizational levels, as well as compliance with the French nuclear regulations.

The aim of this contract is to provide support for the oversight of the above mentioned PA's in terms of engineering reviews and monitoring.

3 Work Description

The work required in this technical specification includes the following engineering and monitoring activities in relation with all the 21 PAs of the ITER Magnet system:

1) Review of technical and QA documents

The following documents shall be reviewed and suggestions for improvement shall be made available to the IO Responsible Officers:

- Manufacturing plans and procedures submitted by the DAs and their suppliers
- Various kinds of QA documents submitted by the DAs and their suppliers.
- Interface documents between Magnets and other IO PBS, and internally between Magnet components.
- Documents presented to Design Review and Manufacturing Reviews.
- Other documents related to technical or QA matters indicated by IO

In the course of the review, issues related to technical and/or QA matters, if any, shall be identified and possible resolutions of the issues shall be made available to the IO Responsible Officers.

2) Monitoring of the progress in technical activities

In order to monitor the progress of the technical activities in the DAs, the following documents shall be reviewed and the assessment of the schedule performance shall be made available to the IO Responsible Officers.

- Status report and monthly progress report submitted by the DAs.
- Detailed Working Schedule (DWS) submitted by the DAs.
- Other documents related to schedule indicated by IO

In the course of the assessment, issues related to the schedule performance, if any, shall be identified and possible resolutions of the issues shall be made available to the IO Responsible Officers.

3) Visit to work places and participation in technical meetings

In order to perform above-mentioned work items, the contractor, in agreement with IO, may visit the work places in the DAs including their suppliers and witness their work. The contractor, in agreement with IO, may also participate in the relevant technical meetings, such as progress meetings, Design Reviews and Manufacturing Reviews, to be held at IO or at DAs including their suppliers.

4 Duration

The contract duration shall be 2 years. The IO may extend these services for a maximum of one additional period of one year.

5 Deliverables and Time Schedule

The specific work to be carried out as part of the scope given above is to be established quarterly (every three months). The IO will, in mutual agreement with the contractor, establish tasks and priorities, along with the written reports to be produced and documentation to be reviewed. These will be part of a work plan for the three-month period. Quarterly reports are the deliverables measuring the accomplishment of the objectives.

Travel needed (per year):

- 2 trips to Asia
- 1 trip to US
- 3 trips within Europe

For travel, subsistence and other expenditure incurred in the mission done by the Contractor personnel to accomplish the work entrusted by the IO, a budget is fixed. Cost will be sustained by the Contractor, and then invoiced to the IO.

6 Acceptance Criteria (including rules and criteria)

The acceptance of the work will be based on the examination of the content of each of the specified reports in accordance with the description of the work given in Section 3.

7 Experience

The staff proposed by the contractor to carry out the work described in Section 3 must have proven experience in following areas:

- Proven experience in large-scale applied superconductivity (at least 15 years);
- Proven experience in design and manufacture of large superconducting magnets for fusion (at least 15 years);
- Proven experience in project management and production management (at least 10 years);
- Proven international experiences, especially those with manufacturing companies in Japan, Europe, US and Russia.
- Good communication and negotiation skills;

Curriculum Vitae, CV showing evidence above is required.

8 Work conditions

- A work plan shall be established and agreed by IO quarterly. Travelling and missions shall be only upon agreement with IO;
- This contract shall be executed by one sole staff. Splitting it into parts and sharing those between several parties or individuals are not permitted;
- The staff working on this contract shall be available full time and deployed to the IO site in St Paul-lez-Durance, France.
- A desk and a laptop will be assigned to the Contractor working on IO site.
- The contractor will be given access to the necessary data and documents either in paper or in computer files format at Cadarache ITER site. The contractor will be allowed to access the necessary folders in the computer server at Cadarache ITER site via internet;
- Given the fact suppliers hold trade secrets in the manufacture of the strands and some of their components, and that competitive considerations are at play, the contractor is expected to disclose any and all conflicts of interest in the conduct of this contract, and sign non-disclosure agreements as directed by the IO.

9 Timetable

The tentative timetable is as follows:

Call for Expertise	January 2014
Contract award	April 2014

10 Candidature

Participation is open to all individuals, companies or consortia which are legally registered in one or more of the ITER Member States. A consortium may be either a permanent, legally-established grouping or a grouping which has been constituted informally for a specific tender procedure. All members of a consortium (i.e. the leader and all other members) are jointly and severally liable to the ITER Organization.

The consortium groupings shall be presented at the tender submission stage. The consortium cannot be modified later without the approval of the ITER Organization.

11 Payment schedule / Cost delivery time breakdown

Invoices will be raised and paid quarterly, based on working days worked by the resource allocated to the Contract in the quarter, supported by authorized and approved by IO timesheets and accepted deliverables.

Payment shall be executed only if the contractor has fulfilled his contractual obligations by the date on which the invoice is submitted.

12 Quality Assurance (QA) Requirement

Documentation developed as the result of this contract shall be retained by the contractor for a minimum of 5 years, after which it may be discarded at the discretion of the IO.