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EXTERNAL REFERENCE

Call for Nomination Documents

MRH FW Contract Technical Summary

Technical summary for the Call for nominations for the Maintenance & Remote Handling framework contract.

Approval Process			
	Name	*Action*	*Affiliation*
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Document Security: Internal Use *RO: Hamilton David*			
Read Access	**GG: MAC Members and Experts, LG: PSE Management, LG: RH section - administration, GG: IO DG, DDGs, AD: IO_Director-General, AD: Division - Procurement and Contract, AD: Section - Maintenance and Remote Handling, AD: Section - Budget Management - EXT, AD: Section - Budget Management, AD: Auditors, AD...**		

Change Log				
Title (Uid)	***Version***	***Latest Status***	***Issue Date***	***Description of Change***
MRH FW Contract Technical Summary (PVMDUV_v1_2)	v1.2	Signed	15 Dec 2014	Updated timetable
MRH FW Contract Technical Summary (PVMDUV_v1_1)	v1.1	Approved	27 Aug 2014	Applied changes suggested by Taka.
MRH FW Contract Technical Summary (PVMDUV_v1_0)	v1.0	Signed	27 Aug 2014	

TECHNICAL SUMMARY

Maintenance Engineering Support Framework

Call for Nomination

Purpose

The purpose of the envisaged Framework contract is to provide engineering support, during the design and construction phase, to the ITER Organization for the development of the maintainability and inspectability of the ITER structures, systems, and components.

The framework contract is expected to be awarded to maximum 4 (four) entities.

Background

ITER is a joint international research and development project that aims to demonstrate the scientific and technical feasibility of fusion power. The partners in the project - the ITER Parties - are the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. ITER is being constructed in Europe, at Cadarache in the South of France (see www.iter.org for an overview of the ITER project).

ITER is a nuclear installation that is licenced by the French nuclear authority (ASN). Effective maintenance is essential for the safe operation of a Basic Nuclear Installation (INB). The range of maintenance activities includes monitoring, surveillance, inspection, testing, assessment, calibration, service, overhaul, repair and replacement of parts.

The ITER plant is an R&D project and it will have a large about of contributing systems with a regular need for replacement and re-configuration. The nuclear fusion experiments will activate the Tokamak device and this is a major issue for the on-going maintenance of the device. Inside and close to the Tokamak, high dose rates and contamination will only allow maintenance using remote handling systems and tools. Further away from the device, maintenance may be carried out by personnel wearing suitable personnel protective clothing, although the project shall follow the ALARA (as low as reasonably achievable) principle for personnel dose update. Away from the nuclear buildings (Tokamak Complex and Hot Cell Facility), maintenance is governed by normal occupational safety regulations.

Scope of Work

The work will be carried out within a framework contract under which a number of Task Orders will be issued. Individual Task Requests will be issued, and all Contractors will be invited to provide proposals. The award of each Task Order will be based on the Contractor's ability to meet the technical requirements defined in each specific Task Request.

The scope of the work for the framework includes:-

- applying nuclear installation in-service inspection, surveillance, and maintenance standards and methods to ITER plant structures, systems, and components (SSC) and devising suitable maintenance management programs,

- developing maintenance solutions, procedures and supporting documentation for ITER plant structures, systems, and components as a mechanism to drive maintainability and inspectability of the design,
- applying fault tree and RAMI (reliability, availability, maintainability, and inspectability) analysis to ITER SSC as a mechanism for driving design requirements for high reliability and availability of the ITER device,
- implementing standardisation, simplification and optimisation of maintenance at the design stage to control costs,
- carrying out mock-up work (virtual and physical) to validate remote and hands-on maintenance tools and procedures,
- developing maintenance documentation for the ITER nuclear installation licensing basis.

Timetable

The duration of the framework contract will be 2 years from the signature date, with an option to extend a further 2 years. The tentative timetable for setting up the framework contract is as follows:-

- Call for nomination January 2015
- Pre-Qualificiation February 2015
- Call for Tender: March 2015
- Award of the Framework Contract: July 2015

Experience

The companies or consortia of companies selected shall be recognised for their knowledge and expertise in maintenance engineering within the realm of nuclear technology, and will have experience in:

- developing in-service inspection, surveillance, and maintenance management programs for basic nuclear installations,
- providing technical support on maintenance issues, either directly or indirectly, with a nuclear regulatory body,
- developing maintenance solutions and procedures (remote and hands-on) for plants with a similar profile to ITER,
- designing specialized handling equipment and tooling for maintenance of nuclear plant installations,
- carrying out mock-up work (virtual and physical) to validate remote and hands-on maintenance tools and procedures,
- fault tree and RAMI analysis with access to component reliability databases,
- producing maintenance documentation for the nuclear installation licensing basis.
- working with CATIA design tools and virtual reality systems.

Experience and knowledge of the ITER project is an advantage.

Candidature

Participation is open to all legal persons participating either individually or in a grouping (consortium) which is established in an ITER Member State. A legal person cannot participate individually or as a consortium partner in more than one application or tender. A consortium may be 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. thee leader and all other members) are jointly and severally liable to the ITER Organization. The consortium cannot be modified later without the approval of the ITER Organization.

Legal entities belonging to the same legal grouping are allowed to participate separately if they are able to demonstrate independent technical and financial capacities. Bidders' (individual or consortium) must comply with the selection criteria. IO reserves the right to disregard duplicated references and may exclude such legal entities from the tender procedure.

Reference

Further information on the ITER Organization procurement can be found at: http://www.iter.org/org/team/adm/proc/overview