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Technical Specifications (In-Cash Procurement)

Technical Specification for Offsite Inspection services of prefabrications with delegation of IO QCC and PE Group

This Technical Specification provides requirement for inspection and monitor to be carried out on behalf of ITER Organization for prefabrication activities and to ensure compliance with applicable requirements and approved reference documents.

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1 Preamble

This Technical Specification is to be read in combination with the General Management Specification for Service and Supply (GM3S) – [Ref 1] that constitutes a full part of the technical requirements.

In case of conflict, the content of the Technical Specification supersedes the content of Ref [1].

2 Purpose

ITER is a joint international research and development project that aims to demonstrate the scientific and technical feasibility of fusion power.

The programmatic goal of ITER is "to demonstrate the scientific and technological feasibility of fusion power for peaceful purposes".

ITER facility is classified as Basic Nuclear Installation (Installation Nucléaire de Base (INB)) in accordance with French Regulation.

ITER Organization (IO) is responsible for monitoring the quality of its supply chain. Quality control services are requested in the frame of this monitoring and outcomes are included in the final manufacturing files, collecting evidence that applicable requirements have been met.

The purpose of this FRAMEWORK contract is to provide quality control service support to the IO Quality Control for Construction-related activities and PE Group, as well as other relevant parties if applicable.

3 Acronyms & Definitions

3.1 Acronyms

The following acronyms are the main one relevant to this document.

Abbreviation	Description
CRO	Contract Responsible Officer
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
PRO	Procurement Responsible Officer
CR	Contractor Responsible
CT	Contractor
IO QS	IO Quality Supervision
IO CC	IO’ Construction Contract/subcontract
IO CCR	IO’ Construction Contractor/subcontractor
MIP/ITP	Manufacturing inspection plan/inspection and test plan
IDM/SPO	ITER Document Management (system)/ Smart Plant for Owner Operators

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3.2 Definitions

ITER Organization: The ITER International Fusion Energy Organization as the client of this Contract

IO ITER Organization Contract Responsible Officer: Coordinator from IO QCC team, who is assigned to this contract of all matter

Contractor Responsible: Person assigned by the Contractor, who has fully delegation from the Contractor to coordinate or execute all the responsibility under the Contract

Contractor: shall mean an economic operator who have signed the Contract in which this document is referenced.

IO Quality Control Construction: As part of IO's organization, whose main role is responsible for the whole construction quality control onsite, as well as necessary pre-fabrication offsite.

IO PE Group: As part of IO's organization, being responsible of the implementation of the regulations related to the manufacture, installation and follow up into service of the PE/NPE to be installed and operated on ITER site. The IO PE Group and TERM OF REFERENCE PE GROUP refer to Ref [11] for the description.

IO' Construction Contract/subcontract: Direct or indirect contract with IO, with prefabrication and installation work scope inside.

IO' Construction Contractor/subcontractor: According to the construction contract, the actual performer to provide prefabrication and installation to ITER site.

Master inspection plan/inspection and test plan: Official method to implement product and process control during manufacture, prefabrication and installation

IDM/SPO: ITER Document Management (system)/ Smart Plant for Owner Operators

4 Applicable Documents & Codes and standards

4.1 Applicable Documents

This is the responsibility of the Contractor to identify and request for any documents that would not have been transmitted by IO, including the below list of reference documents.

This Technical Specification takes precedence over the referenced documents. In case of conflicting information, this is the responsibility of the contractor to seek clarification from IO.

Upon notification of any revision of the applicable document transmitted officially to the contractor, the contractor shall advise within 4 weeks of any impact on the execution of the contract. Without any response after this period, no impact will be considered.

Ref	Title	IDM Doc ID	Version
1	General Management Specification for Service and Supply (GM3S)	82MXQK	1.4
2	Order dated & February 2012 relating to general technical regulation applicable to INB-EN	7M2YKF	1.4
3	Quality Requirements for IO Performers	22MFG4	6.2
4	Quality Supervision Inspector Certification Working Instruction	TVUJZY	3.0
5	Inspector Evaluation Sheet	TVURCX	1.3
6	Inspection Report Template	TVUQWY	1.3

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7	ITER Requirements Regarding Contractors Deviations and Non Conformities	22F53X	9.1
8	Implementation plan for design & manufacture of PE/NPE	VE2DSP	4.9
9	TCC2-PSE Group surveillance plan	6QWETC	3.0
10	Working Instruction for the Qualification of ITER safety codes	258LKL	3.1
11	TERM OF REFERENCE PE GROUP	UKQG2J	1.1

4.2 Applicable Codes and Standards

This is the responsibility of the contractor to procure the relevant Codes and Standards applicable to that scope of work.

Ref	Title	Doc Ref.	Version
CS1			
CS2			
CS3			
CS4			
CS5			
CS6			
CS7			

5 Scope of Work

On behalf of ITER, the scope of the mission is technical inspection relating to conformity assessment duty as per ISO 17000.

The scope of the contract is related but not limited to supervise the implementation of applicable regulation/quality requirement, support surveillance/audit organized by IO, during executing of IO construction contracts TCC2 in associated factory/workshop NEWTESOL Santander (Spain) and NUMIP Ljubljana (Slovenia), and other workshops as per request of Contract Responsible Officer (CRO).

The duration of the services is for confirmed 12 months plus optional periods up to 2 months, from the signature of the contract.

The work of this contract is related to the qualitative, technical, and regulatory support to product requirement and process control with regards, French regulations for Pressure Equipment and Nuclear Pressure Equipment, the related ASN guides requirements and basic fundamental safety rules.

The nature of expected support includes:

- Supervisions in associated workshop identified in MIP/ITP, include Pre-inspection meeting, material receiving inspection, welding, non-destructive examination (UT, MT, PT,VT), RT film review, test per requirement, dimensional control, final inspection, packing, etc.
- Review records/reports carried out per project requirement.
- Reporting formally on observations and conformity following supervision.

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- Daily or weekly walk down focus on quality in addition to dedicated supervision per requirement from MIP/ITP.

- Support in the routine activities associated with the management of procedures.

- Follow-up open issue, related to quality, safety, nuclear safety as well as any project concern highlighted by IO CRO.

- Support in the preparation, execution and management of the findings identified during internal and external quality audits or surveillance.

- Early warning to any potential risk.

Note 1: It is expected a full-time job for 1-2 inspectors but could be adjusted associated with the real workload of factory/workshop.

Note 2: the contractor is not performing QC inspection on behalf of the IO CCR. The Contractor shall ensure strict monitoring of its assigned staff and put in place measures to avoid inspector link and relationship with IO CCR, which may result in less effective supervision actions.

This section defines the specific scope of work for the service, in addition to the contract execution requirement as defined in Ref [1].

6 Location for Scope of Work Execution

The Work shall be in the workshop of TC2 contractor and sub-contractors or could be performed in IO site or some other factory premise as request by CRO.

7 IO Documents

No input is expected from IO

8 List of deliverables and due dates

The Supplier shall provide IO with the documents and data required in the application of this technical specification, the GM3S Ref [1] and any other requirement derived from the application of the contract.

A minimum, but not limited to, list of documents is available hereafter with associated due dates:

Technical Design Family (TDF)	Generic Document Title (GTD)	Further Description	Expected date (T0+x) *
Inspection and Test Record or Report	Inspection Report for Manufacturing	Resident inspector produce inspection report and/or site quality observation report	This is a flash report within 24 hours in case findings are detected
Review or Decision or Recommendations Report	Progress Report	Weekly Progress Report to summarize the quality supervision work	This is a weekly report

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(*) T0 = Commencement Date of the contract ; X in months.

Supplier is requested to prepare their document schedule based on the above and using the template available in the GM3S Ref [1] appendix II (click here to download).

9 Quality Assurance requirements

The Quality class under this contract is QC1, [Ref 1] GM3S section 8 applies in line with the defined Quality Class.

The organisation conducting these activities should have an ITER approved QA Program or an ISO 9001 accredited quality system.

Prior to commencement of the task, a Quality Plan must be submitted for IO approval giving evidence of the above and describing the organisation for this task; the skill of workers involved in the study; any anticipated sub-contractors; and giving details of who will be the independent checker of the activities. The general requirements are detailed in [Ref 3].

Documentation developed as the result of this task shall be retained by the performer of the task or the DA organization for a minimum of 5 years and then may be discarded at the direction of the IO. The use of computer software to perform a safety basis task activity such as analysis and/or modelling, etc. shall be reviewed and approved by the IO prior to its use, in accordance with [Ref 10].

10 Safety requirements

ITER is a Nuclear Facility identified in France by the number-INB-174 (“Installation Nucléaire de Base”).

For Protection Important Components and in particular Safety Important Class components (SIC), the French Nuclear Regulation must be observed, in application of the Article 14 of the ITER Agreement.

In such case the Suppliers and Subcontractors must be informed that:

- The Order 7th February 2012 applies to all the components important for the protection (PIC) and the activities important for the protection (PIA).
- The compliance with the INB-order must be demonstrated in the chain of external contractors.
- In application of article II.2.5.4 of the Order 7th February 2012, contracted activities for supervision purposes are also subject to a supervision done by the Nuclear Operator.

For the Protection Important Components, structures and systems of the nuclear facility, and Protection Important Activities the contractor shall ensure that a specific management system is implemented for his own activities and for the activities done by any Supplier and Subcontractor following the requirements of the Order 7th February 2012.

11 Special Management requirements

The official language of the ITER project is English. Therefore all input and output documentation relevant for this Contract shall be in English.

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The Contractor shall ensure that all the professionals in charge of the Contract have an adequate knowledge of English, to allow easy communication and adequate drafting of technical documentation. Subcontracting is not allowed, subcontracting requirement to be specified in common condition of contract.

However, Per requirement from CRO, contractor's deliverables may also be executed from contractor's offices， site of the ITER Organization （Route de Vinon sur Verdon, 13067 St Paul-lez-Durance, France）, or associated workshop/factory with the clear agreement from IO CRO before the execution of the task.

11.1 Contract Gates

The contract gates are defined in [Ref 1] section 6.1.5.

11.2 Work Monitoring

The CRO and the delegation is authorized to perform evaluation on the performance of the resident inspector. The performance monitoring could be done via workshop visit, feedback from IO stakeholders, technical discussions, cross check of inspections, etc.

11.3 Meeting Schedule

The following meetings should be organised.

Scope of meeting	Key point	Place of meeting
Kick off meeting	Condition check before release contract	TBD
Progressive meeting	Report achievement and progress IO's permission for work continuation	TBD
Dedicated meeting(per project requirement)	Emergency, long-open issue dealing, or any other similar topic.	TBD
Closing meeting	Summarize contract	TBD

11.4 CAD design requirements

Not applicable

11.5 Other Specificities

The Contractor shall provide support to IO QCC team and IO PE group as well as other involved parties in the areas of the topics identified in this contract. For further guidance, the Contractor's activities will be clearly defined by IO CRO according to the needs of IO side. The mechanism to order the actual service shall be defined in the Contract terms and conditions.

These activities will include advisory and support in relation with manufacturing, construction (if impacted by manufacture), assembly (if impacted by manufacture), operation (if impacted by manufacture) of associated product or process.

The contractor shall immediately alert the IO CRO in case of any major issue identified during execution of this contract.

In accordance with chapter 8 above, the Contractor shall perform, not limited to but for example, the following tasks (deliverables):

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•Attending witness points (HP, W, NP) identified in MIP/ITP during prefabrication per notification from IO CCR and establishing the related supervision report.

•Reviewing documents assigned in ITER network system (IDM/SPO).

•Reviewing records/reports carried out during prefabrication and signing MIP/ITP accordingly.

•Participation in different meeting related to activities of manufacture including reparation if any and preparation of Minutes of Meeting and related actions plan.

•Quickly reporting emergency issue if any major impact to implementation of IO CC, directly to IO CRO.

•Performing analysis of quality status in monthly or quarterly basis based on workload in the workshop/factory.

In general, the contractor shall submit, as contract deliverable, a supervision report to be approved by IO. This supervision report related to specific activities report at least the following factors:

•List of the activities performed by the Contractor,

•Progress status of these activities,

•Date(s) and location of the intervention,

•Results of the supervisions,

•List of findings identified during the supervisions,

•List of the reference documents,

•List of documents established or reviewed with IDM reference if applicable,

In detail, report workflow should be respected as below:

•Supervision report as well as analysis of quality status should be drafted and submitted with dedicated templet and process defined by IO CRO, within three working days after each supervision.

•Emergency issue should be reported immediately by means of phone call, teams' message or similar way to IO CRO firstly once it is confirmed, and then by means of email within that very day.

The IO CRO (or person delegated by the IO CRO) will review the deliverables and reply, within 5 days, with a commented version of the deliverable(s). On the other hand, the Contractor shall perform all the necessary modifications or iterations to the deliverables and submit a revised version within 2 working days after receiving IO's comments if any.

In addition,

•The Contractor shall meet or exceed the adequate level of quality reasonably expected from the normal industry practice for this type of service contract.

•It is mandatory that the contractor shall ISO 17020 certified or equivalent and the residence inspector for this contract shall have proven skills and equivalent experiences of mechanical, welding or NDT background, competent to carry out the work defined in this technical specification.

•All the deliverables must be established in English and always supported by good understanding and application of the relevant safety regulations and requirements.

12 Appendices

Not applicable