IDM UID
7MWR33

VERSION CREATED ON / VERSION / STATUS
19 Apr 2022 / 1.1 / Approved

EXTERNAL REFERENCE / VERSION

Technical Specifications (In-Cash Procurement)

Diagnostic Data Management and Coordination

CFE for:-

This document describes the technical specification for Data Management and Coordination for the ITER Diagnostics Systems.

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1 Purpose

This document describes the technical specification for Data Management and Coordination for the ITER Diagnostics Systems.

2 Scope

The work described below is related to the Data Management and Coordination through the Project Lifecycle Management (PLM) system for the diagnostic systems of PBS 55.

The scope of the work described in this technical specification is:

- To migrate the existing data in the ITER Documentation Management system (IDM), System for Management of Diagrams and Drawings to the PLM system (software package being Matrix by Dassault Systems).
- Support diagnostic ROs with the planning and production of data packages for different "gates" (design reviews, manufacturing readiness reviews, delivery readiness reviews …), in-cash procurement contracts and engineering work packages (EWPs) for construction.
- Coordinate, streamline and communicate the data management related requirements flowing down from the many ITER MQP procedures. Specifically the keeping up to date and extension of the PBS 55 Documentation Production Plan (DPP) template.

More details are covered in section 6 Work Description

3 Definitions

CDR: Conceptual Design Review

C-RO: Contractor Responsible (e.g. at the head office). See Contract specifications for definition of duty.

C-TRO: Contractor Task Responsible Officer (carrying out the contract tasks). See Contract specifications for definition of duty.

DPP: Document Production Plan

FDR: Final Design Review

IDM: ITER Documentation Management system

IO-CT: ITER Organization (Central Team)

IO-DA: Domestic Agency

IO-TRO: ITER Organization Technical Responsible Officer for this contract. See Contract specifications for definition of duty.

PA: Procurement Arrangement

PBS: Plant Breakdown Structure

PDR: Preliminary Design Review

PPD: Port Plug and Diagnostics Engineering Division

RO: Responsible officer (for a diagnostic project, either at the DA or at IO)

For a complete list of ITER abbreviations see: ITER Abbreviations (ITER_D_2MU6W5).

4 References

Links inserted in text.

5 Estimated Duration

The work shall be for a period of 12 months starting from the starting date of the contract. Services are to be provided predominantly off-site, but with regular visits to IO site for meetings with IO TROs of the diagnostic subsystems.

6 Work Description

6.1 Background

The PBS 55 – Diagnostics consists of over 100 subsystems/projects (at PBS level 2). To ensure efficient management of the engineering data (reports, drawings, diagrams, specifications …) and to ensure consistency between all the different subsystems, a dedicated contact person for supporting the TROs is required.

This support includes a.o.

- The coordination and management of activities within the ITER Project Lifecycle Management (PLM) platform. I.e. planning and production of the documentation in Unitary Work Packages (UWP), Engineering Dossiers (ED) and Hand-Over Packages (HOP) for 'gate reviews' and Engineering Work Packages (EWP).
- The coordination, streamlining and communication of data management related requirements flowing down from the many ITER MQP procedures. Specifically the keeping up to date and extension of the PBS 55 Documentation Production Plan (DPP) template was created (ITER_D_RZJ4LM),

6.2 Tasks

Following tasks apply to each diagnostic project individually:

1. Update, with the support of the diagnostic RO, the UWPs at the start of each new lifecycle phase (e.g. when starting Final Design)
    a. Identify those data that need an update in the newly started phase: include them as new revisions in the UWP.
    b. Plan for new data needed in the newly started phase
    c. Ensure the planned data are assigned to the correct Dossiers and HOP
    d. Launch the production of planned data (both creation of new placeholders and release of locked documents for revision).
2. Migrate existing data to the PLM platform:
    a. Support TROs with the migration of legacy data from on platforms that will be phased out (IDM, SMDD).
    b. Support TROs in the transition to the full technical workflow integration into PLM.

Following task is generic to the whole Port Plug and Diagnostics Engineering Division (PPD):

3. Regular update of the PBS 55 DPP template
    a. Keeping generic document titles, technical document families and suggested dossier types up to date
    b. Keeping sign-off roles (in line with ITER sign-off authority) and names for the different documents up to date
    c. Keeping references to MQP procedures, Guidelines and templates applicable to the documents listed in the DPP template up to date

d. Identify documents listed that have outdated or insufficient supporting information and coordinate for these the generation of guidelines, templates or example documents
e. Support and training of the diagnostics RO's (both IO and DA) on the use of the DPP template, UWPs, Dossiers and HOPs

The work needs a data management expert with significant background in both the ITER platforms and the technical engineering aspects of ITER diagnostics. This means (s)he needs to understand the content and use of the data used by ITER diagnostic systems (such as Load Specifications, Structural Integrity analyses, Diagrams and Drawings, Remote Handling assessment, Electronics Radiation Hardness Assessment, RAMI analysis, I&C architecture, Maintenance and operation plan, test plans …). Good communication skills are also a prerequisite given the required communication with the diagnostic ROs.

As deliverables a monthly report shall be prepared providing a description and evidence (e.g. by references to updated or created documentation, UWPs, HOPs, created templates or guidelines, training presentations …) of the work done related to the tasks described above. The deliverables are defined in Section 8 List of Deliverables and due dates.

7 Responsibilities

7.1 Contractor's Responsibilities

In order to successfully perform the tasks in these Technical Specifications, the Contractor shall:

- Strictly implement the IO procedures, instructions and use templates;
- Provide experienced and trained resources to perform the tasks;
- Contractor's personnel shall possess the qualifications, professional competence and experience to carry out services in accordance with IO rules and procedures;
- Contractor's personnel shall be bound by the rules and regulations governing the IO ethics, safety and security IO rules.

7.2 IO's Responsibilities

The IO shall:

- Nominate the Responsible Officer to manage the Contract (IO-TRO);
- Organise a monthly meeting(s) on work performed;
- Provide offices at IO premises.
- Grant the access to the IDM as Author to the contractor, in order to upload documentations.

8 List of Deliverables and due dates

The main deliverables are listed in the table below

D #	Description	Due Dates*
D01	Monthly report on Diagnostic Data Management	T0 + 1 months
D02	Monthly report on Diagnostic Data Management	T0 + 2 months
D03	Monthly report on Diagnostic Data Management	T0 + 3 months

D #	Description	Due Dates*
D04	Monthly report on Diagnostic Data Management	T0 + 4 months
D05	Monthly report on Diagnostic Data Management	T0 + 5 months
D06	Monthly report on Diagnostic Data Management	T0 + 6 months
D07	Monthly report on Diagnostic Data Management	T0 + 7 months
D08	Monthly report on Diagnostic Data Management	T0 + 8 months
D09	Monthly report on Diagnostic Data Management	T0 + 9 months
D10	Monthly report on Diagnostic Data Management	T0 + 10 months
D11	Monthly report on Diagnostic Data Management	T0 + 11 months
D12	Monthly report on Diagnostic Data Management	T0 + 12 months

*T0 is the time of the start of the contract.

9 Acceptance Criteria

These criteria shall be the basis of acceptance by IO following the successful completion of the services:

- The deliverables will be in the form of reports as indicated in section 8 List of Deliverables and due dates.
- The deliverables will be posted in the Contractor's dedicated folder in IDM.
- The IO-TRO is the Approver of the delivered reports.
- The Approver can name one or more Reviewers(s) in the area of the report's expertise.
- The Reviewer(s) can ask modifications to the report in which case the Contractor must submit a new version.
- The acceptance of the document by the Approver is the acceptance criterion.

10 Specific requirements and conditions

Experience of all skills and techniques required to perform the task described in 6 Work Description and to produce the deliverables listed in 8 List of Deliverables and due dates– in particular:

- Meticulous and organized data management skills, including multi-platform data integration;
- Sufficient technical background to be able to understand the content/use of the types of technical data mentioned in section 6 Work Description;
- Good communication skills (1-to-1 meetings, presentations, fluency in English …);
- Experience with the Project Lifecycle Management, Documentation Management systems and Technical database systems;
- Experience with MS Office, specifically Excel;

11 Work Monitoring / Meeting Schedule

The work will be managed by means of Progress Meetings and through the formal exchange of documents and transmitted by emails which provide detailed progress.

Progress Meetings will be called by the ITER Organization or the C-TRO. They will be held as needed and at least bi-monthly on the IO site. Progress meetings will involve C-TROs and the IO-TRO. External experts will be invited to discuss technical matters. The C-RO will be invited in case of contractual discussions.

For all Progress Meetings, minutes, including action items, shall be written by the C-TRO and be stored in the ITER IDM in order to ensure traceability.

12 Delivery time breakdown

See Section 8 List of Deliverables and due dates.

13 Quality Assurance (QA) requirements

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

The general requirements are detailed in ITER Procurement Quality Requirements (ITER_D_22MFG4).

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 (see Procurement Requirements for Producing a Quality Plan (ITER_D_22MFMW)).

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 Quality Assurance for ITER Safety Codes (ITER_D_258LKL).

14 CAD Design Requirements (if applicable)

No CAD design tasks are foreseen for this contract.

15 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 (PRELIMINARY ANALYSIS OF THE IMPACT OF THE INB ORDER - 7TH FEBRUARY 2012 (AW6JSB v1.0)).