外部委託業者の募集

References: IO/26/OT/10035144/ENA

"Standard Components - Batch 1 - Qualification Execution"

（標準構成部品–バッチ 1 の適格性証明試験の実施）

IO 締め切り 2026 年 7 月 2 日(木)

〇はじめに

本事前情報通知（PIN）は、作業契約の入札授与および実行につながる公開入札調達プロセスの最初のステップです。

〇背景

ITER は平和利用の核融合発電の科学的および技術的な実現可能性の実証を目的とした、国際共同研究開発プロジェクトです。ITER 機構の 7 つのメンバーは、;欧州連合（EURATOM が代表）、日本、中華人民共和国、インド、大韓民国、ロシア連邦、および米国です。

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〇作業範囲

本契約の作業範囲は、選定されたトリチウムプラント標準構成部品に関する適格性評価作業の実施を対象とし、試験文書の作成、試験体の製作、試験の調整および実施、ならびに管理された試験記録および報告書の提出を含みます。

本契約の実施については、IO内部ではトリチウムプラント標準構成部品適格性評価プログラムの下で実施されます。

本契約の下で選定される契約者は、選定されたトリチウムプラント標準構成部品に関する適格性評価活動の実施に必要な技術要件を満たすとともに、これらの活動を所定の期間内に高い品質で完了する必要があります。

〇調達プロセスと目的

目的は、競争入札プロセスを通じて供給契約を落札することです。

この入札のために選択された調達手続きは公開入札手続きと呼ばれます。

オープン入札手順は、次の 4 つの主要なステップで構成されています。

- ステップ1-事前情報通知（PIN）

  事前情報通知は公開入札プロセスの第一段階です。IO は、企業、研究機関その他の主体に対して当該入札機会を事前に周知するため、今後予定されている入札に関する情報を公表するよう、各 DA に正式に要請します。

関心を有する入札参加者は、以下の調達スケジュールに示された期限までに、関心表明書（附属書Ⅰ）を電子メールにて提出するようお願いいたします。

- ステップ2-入札への招待
  PINの発行から14作業日以内に、関心を示した入札者に対して入札への招待（IIT）が送付されます。この段階では、PINを確認した関心のある入札者が入札書類を入手し、入札指示に従って提案書を準備・提出することができます。

- ステップ3-入札評価プロセス
  入札者の提案は、ITER機構の公正で専門的な技術評価委員会によって評価されます。入札者は、技術範囲に従い、入札への招待（IIT）に記載された特定の評価基準に基づいて作業を実施できることを示す技術的な適合性の詳細を提供する必要があります。

- ステップ4–落札
  認定は、入札への招待（IIT）に記載されている、コストに見合った最適な価格または技術的に準拠した最低価格に基づいて行われます。

〇概略日程

概略日程は以下の通りです：

マイルストーン	暫定日程
事前指示書（PIN）の発行	2026 年 6 月 22 日
関心表明フォームの提出	2026 年 7 月 2 日
入札への招待（IIT）の発行	2026 年 7 月 3 日
iProc で入札提出	2026 年 8 月 14 日
入札評価及び契約授与	2026 年 9 月中旬
契約調印	2026 年 10 月初旬

〇契約期間と実行

予想される契約期間は、30週の見込みです。契約の最終調印日の前にはいかなる作業も実施されません。

〇経験・専門性・知識

望ましくは、契約者は以下の経験、専門知識および知見を有していることが期待されます。

・所定の条件下における機器の性能を実証する試験証拠を生成するための、機器の適格性評価プロセスに関する実績を有すること。

・技術文書および適格性評価計画をレビューし、解釈するための高い能力を有すること。

・代表的な試験条件を満たす試験体の設計、製作および構成に関する専門知識を有すること。

・適用規格および IO 要件に適合した詳細な試験手順書を作成する能力を有すること。
・適切かつ認定された試験施設を用いて機器の適格性評価試験を実施した実務経験を有すること。
・複数の試験構成にわたる適格性評価試験キャンペーンの調整および実施に関する経験を有すること。
・試験の実施およびその結果の管理、一貫性および品質を確保できる能力を有すること。
・関連する試験規格および試験手法（例：漏えい、耐震、火災、爆燃、機能試験等）に関する知識を有すること。
・適格性評価フォローアップ文書（QFUD）の作成および維持を含む、トレーサビリティおよび文書管理に関する高い能力を有すること。
・品質保証および規制遵守（Protection Important Activities（PIA）の取扱いを含む）に関する経験を有すること。
・正確性、完全性および監査可能性を確保しつつ、体系的な試験報告書および技術文書を期限内に提出する能力を有すること。

〇候補

参加は、個人またはグループ/コンソーシアムに参加するすべての法人に開放されます。法人とは、法的権利及び義務を有し、ITER 加盟国内に設立された個人、企業又は機構をいいます。

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【※　詳しくは添付の英語版技術仕様書「**Standard Components - Batch 1 - Qualification Execution**」をご参照ください。】
ITER 公式ウェブ　http://www.iter.org/org/team/adm/proc/overview からもアクセスが可能です。

「核融合エネルギー研究開発部門」の HP：　http://www.fusion.qst.go.jp/ITER/index.html
では ITER 機構からの各募集（IO 職員募集、IO 外部委託、IO エキスパート募集）を逐次更新しています。ぜひご確認ください。

イーター国際核融合エネルギー機構からの外部委託
に関心ある企業及び研究機関の募集について

＜ITER 機構から参加極へのレター＞

以下に、外部委託の概要と要求事項が示されています。参加極には、提案された業務に要求される能力を有し、入札すべきと考える企業及び研究機関の連絡先の情報を ITER 機構へ伝えることが求められています。このため、本研究・業務に関心を持たれる企業及び研究機関におかれましては、応募書類の提出要領にしたがって連絡先情報をご提出下さい。

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PRIOR INDICATIVE NOTICE (PIN)

OPEN TENDER SUMMARY

IO/26/OT/10035144/ENA

For

Standard Components - Batch 1 - Qualification Execution

Abstract

The purpose of this summary is to provide prior notification of the IO intention to launch a competitive Open Tender process in the coming weeks. This summary provides some basic information about the ITER Organisation, the technical scope for this tender, and details of the tender process for the award of a Contract to perform qualification activities in support of the IO Tritium Plant standard component qualification program.

1 Introduction

This Prior Indicative Notice (PIN) is the first step of an Open Tender Procurement Process leading to the award and execution of a Service Contract.
The purpose of this document is to provide a basic summary of the technical content in terms of the scope of work, and the tendering process.
The Domestic Agencies are invited to publish this information in advance of the forthcoming tender giving companies, institutions or other entities that are capable of providing these supplies prior notice of the tender details.

2 Background

The ITER project is an international research and development project jointly funded by its seven Members being, 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 Saint-Paul-

lez-Durance in southern France, which is also the location of the headquarters (HQ) of the ITER Organization (IO).

For a complete description of the ITER Project, covering both organizational and technical aspects of the Project, visit www.iter.org.

3 Scope of Work

The scope of work covers the execution of qualification activities for selected Tritium Plant standard components, including preparation of test documentation, fabrication of test assemblies, coordination and execution of tests, and delivery of controlled test records and reports.Within the ITER Organization, IO Tritium Plant standard component qualification program will be in charge of implementing this Contract.

The Contractor, who will be selected for this Contract, shall meet the technical requirements for the execution of qualification activities for selected Tritium Plant standard components and ensure the activities are completed on time and to high levels of quality.

4 Procurement Process & Objective

The objective is to award a Service Contract through a competitive bidding process.

The Procurement Procedure selected for this tender is called the Open Tender procedure.

The Open Tender procedure is comprised of the following four main steps:

- Step 1- Prior Indicative Notice (PIN) :
  The Prior Indicative Notice is the first stage of the Open Tender process. The IO formally invites the Domestic Agencies to publish information about the forthcoming tender in order to alert companies, institutions or other entities about the tender opportunity in advance. **Interested tenderers are kindly requested to return the expression of interest form (Annex I) by e-mail by the date indicated in the procurement timetable below.**

- Step 2 - Invitation to Tender (ITT) :
  Within 14 days of publishing the Prior Indicative Notice (PIN), the Invitation to Tender (ITT) will be advertised. This stage allows interested bidders who have seen the PIN to obtain the tender documents and prepare and submit their proposals per the tender instructions.

- Step 3 – Tender Evaluation Process :
  Tenderers' proposals will be evaluated by an impartial, professionally competent technical evaluation committee of the ITER Organization. Tenderers must provide details demonstrating their technical compliance to perform the work in line with the technical scope and per the criteria listed in the invitation to tender (ITT).

- Step 4 – Contract award :
  A Service Contract will be awarded based on best value for money according to the evaluation criteria and methodology described in the Invitation to Tender (ITT).

5 Procurement Timetable

The tentative timetable is as follows:

Milestone	Expected Date
Publication of the Prior Indicative Notice (PIN)	22 June 2026
Deadline for Submission of Expression of Interest Form	2 July 2026
Invitation to Tender (ITT) Launch	3 July 2026
Tender Submission in IPROC	14 August 2026
Tender Evaluation Completion & Contract Award	Mid September 2026
Contract Signature	Beginning of October 2026

6 Quality Assurance Requirements

Prior to the commencement of any work under this Contract, the selected Contractor shall produce a "Quality Plan" and submit it to the IO for approval, describing how they will implement the ITER Procurement Quality Requirements.

7 Contract Duration and Execution

The duration shall be for 30 weeks. No work shall commence before the date of final signature of the Contract.

8 Experience/Expertise/Knowledge

Preferably, the Contractor is expected to own the following experience/expertise/knowledge:

- Proven experience in **equipment qualification processes** to generate test evidence demonstrating component performance under defined conditions.
- Strong capability in **reviewing and interpreting technical documentation and qualification plans.**
- Expertise in **design, fabrication, and configuration of test assemblies** for representative test conditions.
- Ability to **prepare detailed test procedures** compliant with applicable standards and IO requirements.
- Hands-on experience in executing equipment qualification tests using appropriate and accredited testing facilities.
- Experience in coordination and execution of qualification test campaigns across multiple test setups
- Demonstrated capability to ensure control, consistency, and quality of test execution and results.
- Knowledge of **relevant testing standards and methods** (e.g. leak, seismic, fire, deflagration, functional testing).
- Strong skills in **traceability and documentation control**, including preparation and maintenance of qualification follow-up documents (QFUD).
- Experience in **quality assurance and regulatory compliance**, including handling Protection Important Activities (PIA).
- Ability to **deliver structured test reports and technical documentation on time**, ensuring accuracy, completeness, and auditability.

9 Candidature

Participation is open to all legal entities participating either individually or in a grouping/consortium. A legal entity is an individual, company, or organization with legal rights and obligations established within an ITER Member State.

Legal entities cannot participate individually or as a consortium partner in more than one application or tender of the same contract. A consortium may be a permanent, legally-established grouping, or a grouping constituted informally for a specific tender procedure. All consortium members (i.e. the leader and all other members) are jointly and severally liable to the ITER Organization.

In order for a consortium to be acceptable, the individual legal entities included therein shall have nominated a leader with authority to bind each member of the consortium, and this leader shall be authorised to incur liabilities and receive instructions for and on behalf of each member of the consortium.

It is expected that the designated consortium lead will explain the composition of the consortium members in a covering letter at the tendering stage. Following this, the Candidate's composition must not be modified without notifying the ITER Organization of any changes. Evidence of any such authorisation shall be submitted to the IO in due course in the form of a power of attorney signed by legally authorised signatories of all the consortium members.

10 Sub-contracting Rules

All sub-contractors who will be taken on by the Contractor shall be declared with the tender submission in IPROC. Each sub-contractor will be required to complete and sign forms including technical and administrative information, which shall be submitted to the IO by the tenderer as part of its tender.
The IO reserves the right to approve (or disapprove) any sub-contractor which was not notified in the tender and request a copy of the sub-contracting agreement between the tenderer and its subcontractor(s). Rules on sub-contracting are indicated in the RFP itself.

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15 Jun 2026 / 1.4 / Approved
EXTERNAL REFERENCE / VERSION

Technical Specifications (In-Cash Procurement)

Standard Components - Batch 1 - Qualification Execution

This document defines the Technical Specification for the TPP Batch 1 Qualification Execution Contract.

It specifies the scope of work for the execution of equipment qualification activities for selected Tritium Plant standard components. The contract covers preparation of test documentation, fabrication of test assemblies, coordination and execution of qualification tests, and production of controlled test records and reports.

Qualification activities are performed on the basis of ...

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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

The purpose of this contract is to perform qualification activities in support of the IO Tritium Plant standard component qualification programme.

The work covered by this technical specification concerns the qualification of selected standard components intended for use across multiple Tritium Plant systems. The qualification activities aim to generate test evidence and technical inputs required by *IO* to demonstrate that the selected standard components are capable of performing their credited safety or protection functions within the defined envelope conditions.

3 Acronyms & Definitions

3.1 Acronyms

The following acronyms are used in this Technical Specification:

Abbreviation	Description
DDLF	Digital Device of Limited Functionality
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
TPP	Tritium Plant Project

3.2 Definitions

Contractor: The economic operator that has signed the Contract and is responsible for execution of the scope of work defined in this Technical Specification.

Equipment Qualification (EQ): Process of generating documented evidence to demonstrate that equipment can perform its intended function under specified conditions.

Qualification Plan (QP): Document issued by IO defining the qualification strategy, including required test activities, conditions, and acceptance logic.

Qualification Follow-Up Document (QFUD): Document used to monitor, track, and ensure traceability of qualification activities.

Test Procedure: Document prepared by the Contractor describing how individual qualification tests are performed, including test setup, conditions, instrumentation, and data recording methods.

Test Readiness Review (TRR): Contract gate confirming that all prerequisites for test execution are in place, including approved procedures, defined test assemblies, available resources, and implementation of PIA controls.

Test Assembly: Configuration of components, piping, instrumentation, and supporting structures used to perform qualification tests under representative conditions.

Protection Important Activity (PIA): An activity that contributes directly to demonstrating or preserving the safety or protection function of a component and therefore requires controlled execution and traceability.

Protection Important Component (PIC): A component that performs or supports a safety or protection function as defined in the qualification basis.

Deviation / Anomaly: Any departure from planned test conditions, procedures, or expected behaviour observed during execution of qualification activities.

Qualification Test Campaign: A coordinated set of qualification tests performed on one or more equipment items under defined conditions.

Baseline Qualification Scope: The indicative set of tests and activities defined in Appendix 1 used for tendering and pricing purposes.

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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	Provisions for Implementation of the Generic Safety Requirements by the External Actors/Interveners	SBSTBM	2.3
3	Tritium Plant Fire Temperature Test Specification	EUDRH5	1.1
4	Tritium Plant Deflagration Resistance Qualification Specification	EMEJ3M	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	Testing and calibration laboratories	ISO 17025	2017
CS2	Leak Testing – Tracer Gas Method	ISO 20485	2017
CS3	Nuclear facilities - Equipment important to safety - Seismic qualification	IEC 60980-344	2020

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5 Scope of Work

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

5.1 Scope overview

The scope of work covered by this contract consists of qualification support activities for a defined list of equipment items identified by the IO and issued with the call for tender.

The purpose of the contract is to generate controlled test results and supporting technical evidence required by the IO to complete the qualification of the equipment. The contract does not include the establishment of qualification strategies or final qualification conclusions.

The Contractor shall act as the coordinating engineering entity for the qualification activities. Where qualification tests are performed by subcontracted laboratories, the Contractor shall remain responsible for the preparation, coordination, control, and completeness of the delivered test outputs.

5.2 Baseline qualification scope

The scope of work applies to a defined set of mechanical and instrumentation components associated with glovebox and process systems.

The list of equipment items and the associated baseline qualification scope are provided in Appendix 1, which represents the baseline scope of qualification activities for the purpose of tendering. The Contractor's offer shall be based on this scope.

The final qualification approach for each equipment item shall be defined by IO through the Qualification Plans.

Testing laboratories shall have ISO 17025 [CS1] accreditation.

Tests will include:

- Helium leak testing according to ISO 20485 method A.1 [CS2]
- Seismic testing according to IEC 60980-344 [CS3]
- Fire temperature tests according to IO reference EUDRH5 [3]
- Deflagration resistance tests or analysis according to IO reference EMEJ3M [4]
- Functional tests of valves and instrumentation.

The Contractor can propose alternative test standards, such a proposal shall be accompanied with a justification.

5.3 IO-issued qualification plans

Qualification Plans (QPs) for each equipment item shall be issued by the IO at contract signature.

The QPs define:

- the qualification strategy,
- the scope of qualification activities,
- credited functions,
- required test evidence and associated acceptance criteria.

The scope and level of qualification activities defined in the QPs are expected to be consistent with the baseline qualification scope provided in Appendix 1, which serves as the basis for tender preparation and pricing.

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The Contractor shall perform qualification support activities strictly in accordance with the QPs issued by IO. The Contractor is not responsible for defining qualification strategies or safety classifications.

5.4 Qualification support activities

The Contractor shall perform qualification support activities required to generate documented test results and technical inputs, as defined in the QPs.

These activities include, but are not limited to, the following.

5.4.1 Review of IO input documentation

The Contractor shall review the QPs and associated IO-issued documentation for the purpose of preparing and executing qualification tests.

Any technical comments related to test feasibility, execution constraints, or test configuration shall be reported to IO. Decisions affecting qualification strategy, scope, or PIA classification remain the responsibility of the IO.

5.4.2 Preparation and fabrication of test assemblies

Preparation and fabrication of test assemblies required for execution of qualification tests are included in the Contractor's scope.

Definition of such test assemblies shall be performed in collaboration with the ITER Organization (IO), based on the Qualification Plans and the specific requirements of each test. The Contractor shall contribute its expertise to propose practical and efficient test configurations.

Test assemblies may include, but are not limited to:

- small-bore tubing arrangements (typically 1/4" and 1/2"),
- VCR or equivalent process connections,
- basic mechanical supports and mounting arrangements required for testing.

Detailed designs of test assemblies may not be fully defined at the time of tender. The Contractor shall develop the required test configurations as part of the preparation of test procedures.

Tenderers shall include in their offer:

- an allowance for design, fabrication, and preparation of such test assemblies,
- unit rates for additional fabrication effort and materials.

5.4.3 Qualification Follow Up Document

The contractor will issue a Qualification Follow-Up Document (QFUD) for each component to monitor, track, and provide traceability for the execution of qualification activities. The QFUD shall provide:

- traceability between qualification requirements and associated tests,
- identification of test specimens and qualification sequences,
- tracking of execution status and test results,
- recording of deviations, anomalies, and follow-up actions,
- identification of qualification activities classified as Protection Important Activities (PIA).

The QFUD shall be maintained as a living document and updated throughout the execution of qualification activities.

The QFUD acts as the central qualification tracking and traceability document, ensuring that all qualification requirements are covered and that associated test evidence is recorded.

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Test procedures define the execution of individual tests, while the QFUD provides overall coordination, traceability, and progress tracking across the qualification programme.

Formal Inspection and Test Plans (ITP) as defined in GM3S are not required unless specifically requested by IO.

5.4.4 Preparation of Test Procedures

The Contractor shall prepare qualification test procedures in accordance with the applicable QPs.

Test procedures shall describe:

- how the tests are performed,
- test configurations and conditions,
- instrumentation and measurement methods,
- methods for recording results.

Test documentation shall not introduce new qualification requirements, acceptance logic, or qualification conclusions beyond those defined or approved by the IO.

5.4.5 Execution of qualification tests

The Contractor shall coordinate and execute the qualification tests defined in the approved test documentation.

Qualification tests may be executed by external laboratories subcontracted by the Contractor. The Contractor shall ensure that test execution is performed in accordance with the approved documentation and that adequate technical supervision is applied.

5.4.6 Test Reporting

The Contractor shall prepare Test Reports documenting:

- test setup and execution,
- measured results,
- deviations or anomalies observed during testing.

Test reports shall present factual results and observations without providing qualification conclusions or statements of overall compliance.

5.4.7 Functional qualification of digital devices of limited functionality (DDLF)

For equipment classified as digital devices of limited functionality (DDLF) and credited for protection or defence-in-depth, the scope of work includes the preparation and execution of functional tests.

The Contractor’s scope for DDLF equipment is limited to:

- preparation of functional test specifications,
- execution of functional tests,
- reporting of functional test results.

The interpretation of functional test results and their use in qualification conclusions remains the responsibility of the IO.

For MAG-H2S-01, the DDLF function corresponds to the provision of a hydrogen concentration measurement signal for use by external systems.

Functional tests for this equipment shall be limited to verification of:

- provision of a valid measurement signal representative of hydrogen concentration,

- response of the measurement signal to changes in hydrogen concentration,
- defined output behaviour under invalid or fault conditions,
- response behaviour relevant to the specified T90 performance.

The 4–20 mA analogue output shall be used as the credited functional interface for testing.

Digital outputs and other configurable interfaces are not part of the credited safety-related signal path and are excluded from the functional test scope, except where required for information or non-safety observation.

Functional testing shall be performed using representative and traceable hydrogen gas concentrations and shall generate recorded measurement outputs and response data.

Acceptance criteria and interpretation of results shall remain defined by the IO QPs.

5.5 Optimisation and commonality of qualification activities

The qualification activities include significant commonality between equipment items, including similar test types, equipment, comparable environmental conditions, and repeated use of test methods.

The Contractor shall take this into account when preparing its offer and shall optimise the execution of qualification activities to benefit from:

- shared test setups (e.g. multiple small items could fit on shaking table or inside environment chamber),
- batching of tests,
- efficient use of laboratory resources.

These efficiencies shall be reflected in the proposed pricing.

5.6 Duration

The maximum expected duration for this activity is 30 weeks.

5.7 Cost Breakdown Requirements

The Contractor shall provide a detailed cost breakdown as part of the tender, including:

- cost per test type (e.g. leak test, fire test, endurance test, functional test),
- cost associated with external laboratory activities,
- cost for test specimen handling and preparation,
- engineering effort for preparation of test documentation, coordination, and reporting.

The cost breakdown shall be structured in a way that allows the impact of changes to the qualification scope to be assessed and managed during contract execution.

Given the repetitive nature and common structure of qualification test procedures, the Contractor shall reflect this in its pricing.

The first procedure developed for each test type shall be priced as a full development cost. Subsequent procedures of the same type, applied to different equipment items, shall be priced at a reduced cost reflecting reuse and adaptation of existing documentation.

Tenderers shall clearly distinguish in their cost breakdown:

- the cost for first-of-a-kind procedure development for each test type, and
- the cost for subsequent procedures based on adaptation of existing procedures.

In the event of modifications or additional procedures requested by IO, these shall be priced using the applicable reduced cost for subsequent procedures, unless significant redevelopment is justified and agreed.

6 Location for Scope of Work Execution

Engineering activities, including preparation of test documentation, coordination of qualification activities, and reporting, shall be performed by the Contractor at its premises.

Qualification tests shall generally be performed at external laboratories subcontracted by the Contractor.

7 IO Documents & IO Free issue items

The ITER Organization (IO) shall provide the documents and free-issue items necessary for execution of the qualification activities.

The Contractor shall perform the qualification activities in accordance with the IO document package and shall review these documents at the start of the contract to identify any inconsistencies or issues.

The Contractor shall verify the condition and completeness of free-issue items upon receipt and shall notify the IO of any discrepancies.

7.1 IO Documents

Under this scope of work, IO will deliver the following documents by the stated date:

Ref	Title	Doc ID	Expected date
1	Isolation valve qualification plan	DV43DG	SOC + 1 week
2	Isolation valve technical specification	AT7CV7	SOC + 1 week
3	Isolation valve identification file	BXWUBA	SOC + 1 week
4	Bellows compressor qualification plan	DWQ6D3	SOC + 2 weeks
5	Bellows compressor technical specification	DMGD74	SOC + 1 week
6	Bellows compressor identification file	DUDF9J	SOC + 1 week
7	Pressure switch qualification plan	G9RKDE	SOC + 2 weeks
8	Pressure switch technical specification	G2GP7F	SOC + 1 week
9	Pressure switch identification file	G2H7R8	SOC + 1 week
10	H2 monitor qualification plan	G94JJB	SOC + 2 weeks
11	H2 monitor technical specification	G2GSGV	SOC + 1 week
12	H2 monitor identification file	G8H3S2	SOC + 1 week
13	Pressure transducer qualification plan	G93YFC	SOC + 2 weeks
14	Pressure transducer technical specification	FZ2DMQ	SOC + 1 week
15	Pressure transducer identification file	G3QPR7	SOC + 1 week
16	Vacuum gauge qualification plan	G9RC4L	SOC + 2 weeks
17	Vacuum gauge technical specification	G2GUGD	SOC + 1 week
18	Vacuum gauge identification file	G94TK5	SOC + 1 week
19	Solenoid valve qualification plan	G94QKC	SOC + 2 weeks
20	Solenoid valve technical specification	G2GYKX	SOC + 1 week
21	Solenoid valve identification file	G94KFR	SOC + 1 week

SERVICES

Identification files provide descriptive and reference information for each equipment item, such as configuration, characteristics, and identification data.

They are provided for information and traceability purposes only and do not define additional qualification requirements beyond those captured in the Qualification Plans.

The baseline qualification scope defined in Appendix 1 is sufficient for tender preparation and pricing.

7.2 Free issue items

The quantity of free-issue items provided corresponds to the baseline qualification scope defined in Appendix 1.

The Contractor shall be responsible for:

- receiving, handling, and storing the free-issue items,
- transporting items to test facilities or laboratories,
- ensuring traceability of specimens throughout qualification activities,
- verifying the condition and completeness of items upon receipt.

Under this scope of work, IO will deliver the following equipment/parts by the stated date:

Ref	Equipment / Part Description	Expected date
1	Isolation valve with position switch (x2)	SOC + 6 weeks
2	Bellows compressor (x1)	SOC + 6 weeks
3	Bellows sub-assembly (x2)	SOC + 6 weeks
4	Pressure switch (x2)	SOC + 6 weeks
5	H2 monitor with interface cable (x2)	SOC + 6 weeks
6	Pressure transducer (x2)	SOC + 6 weeks
7	Vacuum gauge (x2) with controller (x1)	SOC + 6 weeks
8	Solenoid valve (x2)	SOC + 6 weeks

Preparation and fabrication of test assemblies required for execution of qualification tests are included in the Contractor's scope (see Section 5.4.2).

SERVICES

8 Deliverables and Schedule Milestones

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.

Where necessary to maintain the overall schedule, review durations may be agreed between IO and Contractor on a case-by-case basis.

The following is a minimum list of documentation that are required within the expected timing.

Required documents	Expected Timing (T0+x) *
Quality Plan	T0+2 weeks
Contract Management and Implementation Plan	T0+3 weeks
Kick Off Meeting MOM	T0+3 weeks
Deliverables	**Expected Timing (T0+x) ***
Monthly progress report (including Earned Value Management file)	Every 4 weeks from T0
As required per component:	
• Helium leak test procedure (~5 of)	First submission: T0 + 4 weeks / Final submission: T0 + 15 weeks
• Functional test procedure (~4 of)	
• Ageing test procedure (~3 of)	
• Seismic test procedure (~5 of)	
• Fire test procedure (~4 of)	
• Deflagration test procedure (~3 of)	
• Pre-test Qualification follow up documents (~7 of)	First submission: T0 + 10 weeks / Final submission: T0 + 15 weeks
• Associated Test reports	First submission: T0 + 18 weeks / Final submission: T0 + 28 weeks
• Post-test Qualification follow up documents (~7 of)	First submission: T0 + 22 weeks / Final submission: T0 + 30 weeks

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

Supplier shall 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.

10 Compliance with INB Order

Certain activities within the scope of work are classified as Protection Important Activities (PIA) in accordance with the INB regulatory framework. [Ref 1] GM3S section 5.3 applies.

SERVICES

Within the scope of this contract, PIA are limited to activities that directly affect the validity and integrity of qualification test results.

PIA performed by the Contractor include:

- execution of qualification tests,
- recording and traceability of qualification test results,
- controlled handling of test deviations.

Activities such as interpretation of test results, formulation of qualification justifications, and preparation of qualification summary or conclusion reports are excluded from the Contractor's PIA scope and are performed by the IO.

For PIA under the Contractor's responsibility, the Contractor shall ensure that appropriate evidence is available, including:

- demonstration of personnel competency and qualification,
- use of calibrated and suitable test instrumentation,
- traceability of test results and records,
- control of test procedures and documentation,
- recording and management of deviations.

Such evidence shall be made available to the Employer upon request.

The QFUD (see Section 5.4.3) shall identify qualification activities considered as PIA and ensure appropriate traceability and control of their execution.

11 Special Management requirements

The requirements of [Ref 1] GM3S section 6 apply, complemented by the following contract-specific provisions.

11.1 Contract Gates

The following contract gates shall apply:

- Kick-Off Meeting (KOM)
- Test Readiness Review, prior to execution of test campaigns, to confirm that:
  - applicable test procedures are approved,
  - test assemblies and configurations are defined and agreed,
  - required resources and laboratories are available,
  - applicable PIA controls are implemented.
- Final Review / Close-out

The first execution of each major test type may be subject to IO review or witnessing to confirm correct implementation of the approved procedures.

Other gates defined in GM3S (e.g. design review, manufacturing readiness review) are not applicable to this scope unless explicitly requested by IO.

11.2 Contract Management and Implementation Plan

The Contractor shall prepare and submit a Contract Management and Implementation Plan in accordance with GM3S.

This document shall describe both:

- the management arrangements (organisation, communication, subcontracting),
- and the technical approach to execution of qualification activities.

11.3 Work Monitoring

Progress of the contract shall be monitored through:

- monthly progress reports including an Earned Value Management report
- qualification test execution status
- document submission and approval status.

Progress reporting shall reflect both document deliverables and test execution activities.

11.4 Consortium and Subcontracting Arrangements

Bids from consortia are permitted for this contract.

In the case of a consortium, all consortium members shall be considered as part of the Contractor and not as subcontractors for the purpose of subcontracting limitations defined in the GM3S.

Given the nature of the qualification activities and the anticipated involvement of specialised testing facilities, tenderers are encouraged to structure their offer to ensure appropriate integration of testing capabilities within the Contractor organisation, including through consortium arrangements where appropriate.

Where external entities are involved, the Contractor shall clearly identify in its tender whether they are members of the consortium, or proposed subcontractors.

Subcontracting shall comply with GM3S requirements, including applicable limitations. The contractual structure shall be clearly defined in the tender.

11.5 Inspection and Quality Control Approach

Qualification activities shall be controlled through:

- approved test procedures,
- supervision of test execution,
- traceability of results,
- applicable PIA requirements.

The QFUD (see 5.4.3) is used as the primary document for tracking, traceability, and control of qualification activities, in place of Manufacturing Inspection Plans (MIP) and Inspection and Test Plans (ITP).

Appendix 1 – Baseline Qualification Scope

The qualification scope defined in this appendix represents the baseline for tender pricing. It is derived from the current Qualification Plans and provides an indicative breakdown of the number and type of tests and analyses expected for each equipment item. The final qualification execution shall be performed in accordance with the Qualification Plans issued at contract signature. Any deviation from this scope shall be managed through the contract change process.

	Isolation valve with position switch	**Bellows compressor**	**Glovebox pressure switch**	**Glovebox H2 monitor**	**Process pressure transducer**	**Vacuum gauge**	**Solenoid valve**
ID	**VG-SWG-04 MZI-HWL-01**	**PC-SMB-01**	**MPS-STA-01**	**MAG-H2S-01**	**MP-MKS-01**	**MP-THS-01**	**EP-MAC-01**
Process Conditions	<480°C, 0-5 barg	15 - 80°C, 0-5 barg	15 - 35°C, 0 barg, 5-10%RH	n/a	15 – 80°C, 0-5 barg	15 – 80°C, -1-0 barg	15 – 35°C, 0 – 8 barg
Environment conditions	15 - 35°C, 0 barg, 5-10%RH	15 - 35°C, 0 barg, 5-10%RH	15 - 40°C, 0 barg, 20 - 60%RH	15 - 35°C, 0 barg, 5-10%RH	15 – 35°C, 0 barg, 5-1 0%RH	15 – 35°C, 0 barg, 5-10%RH	15 – 35°C, 0 barg, 5-10%RH
Safety Requirements							
Confinement function	First barrier	First barrier	Second barrier [Note 3]	n/a	First barrier	First barrier	n/a
Required in seismic	Yes (SL2)	Yes (SL2)	No	n/a	Yes (SL2)	Yes	n/a
Required in fire	2hrs at 200°C	2hrs at 200°C	n/a	n/a	2hrs at 200C	2hrs at 200C	n/a
Overpressure	No missiles at 18barg	No missiles at 18barg	n/a	n/a	No missiles at 18barg	No missiles at 18barg	n/a
Active safety function	Isolate & provide signal	n/a	Provide signal	Provide signal	n/a	n/a	Vent
Required in seismic	Yes (SL2, SL3)	n/a	No	No	n/a	n/a	Yes (SL2)
Required in fire	Yes	n/a	No	No	n/a	n/a	Yes
Hardcore	Yes	n/a	No	No	n/a	n/a	No
Test Setup							
Power supply	None	230V/50Hz single phase	9 to 30 V DC	10 to 15.6 VDC	13 to 32 VDC	230V/50Hz (to controller unit)	24VDC
I&C interface	Signal continuity	No	4 – 20mA screw terminal	4 – 20mA 12-pin M23 connector	4–20 mA 9-pin D-sub (via flying lead termination)	Via controller (supplied)	DIN 43650 Type C
Mechanical Mounting	Process tubing and actuator support arrangement	Bolt holes on integrated base plate	Screw holes on integral base	Mounted to glovebox (TBC)	Process connection, tube supports	Gauge tube connected directly to process (VCR)	Manifold mounted to glovebox (TBC)
Test/Analysis Program							
Test Specimens [Note 1]	A, B	C D, E = bellows sub-assembly	F, G	H, I	J, K	L, M	N, O (Manifold)
Weight (approx.)	<5kg	<30kg	<500g	<1kg	<500g	<500g	<1kg
Tests (approx. total)							
Helium Leak test [Note 2]	A x5, B x5	C x3, D x2, E x2	-	-	J x3, K x3	L x3, K x2	-
Functional test	A x5, B x5	-	F x1, G x1	H x1, I x1 (DDLF [Note 4])	-	-	N x3, O x3
Ageing test	A x1, B x1	C x1 (1000 hour)	-	-	-	-	N x1, O x1
Seismic test (SL2)	A x1, B x1	C x1	-	-	J x1, K x1	L x1, K x1	N x1, O x1
Seismic test (SL3)	A x1, B x1	-	-	-	-	-	-
Fire test	A x1	D x1	-	-	J x1	L x1	-
Deflagration	B x1	E x1	-	-	K x1	-	-

Note 1: The identifiers (A, B, C, etc.) represent individual test specimens associated with each equipment type. Each identifier corresponds to a distinct physical specimen, which may be subjected to one or more qualification tests as defined in this appendix.

Note 2: Helium leak test (accurate to $1x10^{-10}$ pam^3/s) for acceptance – performed as reference and then after other tests

Note 3: Second barrier integrity to be covered by glovebox qualification (separate scope)

Note 4: DDLF is a dedicated device with limited functionality (see AHNMBK, Section 6.1)

Appendix 2 – Defined Requirements

The following defined requirements are relevant to this scope, they do not apply to the Contractor and are included for traceability purposes only.

Confinement Integrity

[32EPs164-R; Defined Requirement] Confinement systems shall be designed to ensure their function in all conditions and events for which their function is credited in the safety analysis.

[32EPs120-R; Defined Requirement] The structural stability of process components shall be maintained within limits to prevent leakage of hazardous materials.

[32EPs223-R; Defined Requirement] Confinement systems shall remain intact during and following a fire as postulated in the safety analysis.

Seismic Qualification

[32EPs269-R; Defined Requirement] SSCs allocated a seismic class shall be designed, constructed, operated and maintained to maintain their capabilities during and after SL-2 seismic events.

[32EPs272-R; Defined Requirement] Integrity of TEP tanks, pipes and components shall be ensured during and after SL-2 seismic events.

[32EPs273-R; Defined Requirement] Confinement shall be ensured during and after SL-2 to avoid radioactive or hazardous releases.

Fire Resistance

[32EPs79-R; Defined Requirement] Structures and components shall comply with the ITER Fire Safety Approach.

[32EPs223-R; Defined Requirement] Confinement systems shall remain intact during and following fire conditions.

Explosion / Overpressure / Missile Effects

[32EPs239-R; Defined Requirement] Systems shall be designed to prevent or limit missile generation and associated consequences from high-energy events.

[32EPs409-R; Defined Requirement] Equipment containing explosive substances shall be designed and/or operated to prevent internal explosions that could damage confinement barriers.

[32EPs250-R; Defined Requirement] Hydrogen concentration shall be limited below defined thresholds to prevent explosion hazards.

Isolation Devices / Fail-Safe Behaviour

[32EPs187-R; Defined Requirement] Confinement isolation valves shall assume their safe position on loss of auxiliary supply.

[32EPs215-R; Defined Requirement] Isolation valves requiring electrical power shall fail to a safe position.

[32EPs218-R; Defined Requirement] Isolation valves requiring compressed air or nitrogen shall fail to a safe position.

Qualification Requirements

[32EPs282-R; Defined Requirement] All SSC shall be qualified to demonstrate they can perform their allocated functions with the required level of performance and quality.

[32EPs119-R; Defined Requirement] Seismic and other qualification shall ensure that safety functions perform as credited in the safety analysis.

ANNEX I

EXPRESSION OF INTEREST & PIN ACKNOWLEDGEMENT

To be returned by e-mail to: nadezda.eremina@iter.org copy andrew.brown@iter.org

TENDER No.	**IO/26/OT/10035144/ENA**
DESIGNATION of SERVICES:	**Service Contract for Standard Components - Batch 1 - Qualification Execution.**
OFFICER IN CHARGE:	**Nadezda Eremina – Procurement Division, ITER Organization**

☐ WE ACKNOWLEDGE HAVING READ THE PIN NOTICE FOR THE ABOVE MENTIONED TENDER

☐ WE INTEND TO SUBMIT A TENDER

☐ WE ARE ALREADY REGISTERED IN IPROC

☐ WE INTEND TO REGISTER IN IPROC

Please list the users of ARIBA/IPROC that you wish to add as response team for this tender:

Name	E-mail
…	…

……

Signature:

COMPANY STAMP

Name: .....
Position: .....
Tel: .....
E-mail.....
Date: .....