

## Technical Specifications (In-Cash Procurement)

# Technical Summary - Short Term Openings Sealing (STOS)

This document summarizes the main scope of works foreseen as part of the upcoming STOS contract

## Table of Contents

<b>1</b>	<b>PURPOSE</b> .....	<b>2</b>
<b>2</b>	<b>SCOPE OF WORK</b> .....	<b>2</b>
<b>3</b>	<b>ESTIMATED EXPECTED DURATIONS</b> .....	<b>4</b>

## 1 Purpose

The ITER Organization (IO) intends to issue a Tender procedure for Short Term Opening Sealing in the Tokamak Complex Buildings. This document summarizes the main scope that will be part of future contract, from design and qualification up to the onsite completion of captive openings sealing, to ensure that the buildings can fulfil their defined safety functions.

The information and technical details provided in the present document are preliminary and shared with the Candidates to check their interest and capabilities for this contract. Therefore, the technical specifications that will be issued for the upcoming Open Tender will be the only documents to be considered for bidding.

## 2 Scope of Work

### Background

ITER (“The Way” in Latin) is one of the most ambitious energy projects in the world today. 35 nations are collaborating to build the world’s largest tokamak, a magnetic fusion device that has been designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy based on the same principle that powers our Sun and stars. For more information on the ITER project: <http://www.iter.org>

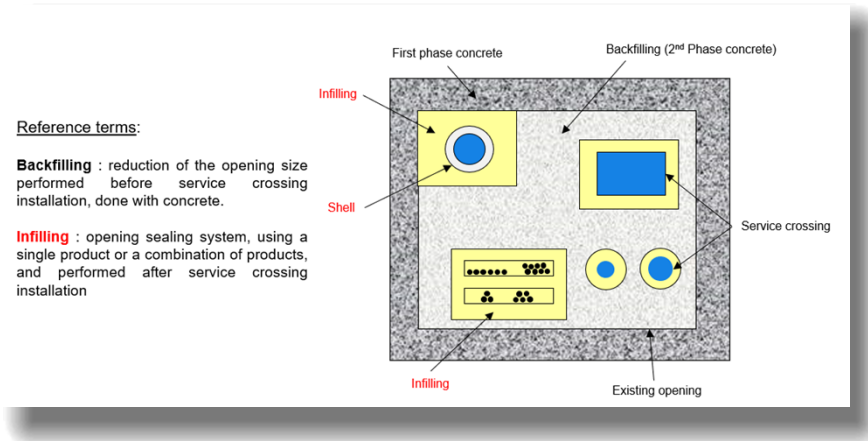
### The Works

The scope of work can be summarized as follows:

The Contractor awarded for the contract associated to the works of this Open Tender shall be responsible to complete, in line with ITER Organisation requirements, the following activities:

- Detailed design of openings sealing/infilling solutions to comply with all the functional, mechanical and interface requirements. Specific design solutions could be developed when complex configurations are encountered.
- Qualification program (including mock-ups fabrication and testing campaign) to demonstrate compliance and performance of the selected sealing solutions against project nuclear safety and technical requirements such as: fire sectorization, confinement, shielding, ageing, decontaminability, seismic loading, etc.
- Realisation of other mock-ups, when needed, to confirm constructability and correct implementation of selected sealing system solution (e.g. high cables saturation ratio, thick walls...).
- Issuance and management of infilling project deliverables such as quality plans, Job Safety analysis, technical specification, execution planning, method statements, installation drawings, installation procedures, inspection plans etc.
- Material supply and onsite sealing/caulking works for mechanical, electrical and mixed systems openings, located essentially in nuclear buildings of ITER site.

- Temporary sealing of mechanical, electrical and mixt systems openings for which final closure will not be required for ITER Augmented First Plasma (AFP) operations, but where at least fire sectorization requirement remains.



**Schematic of wall sealing / infilling components**

For all construction activities listed above, the successful contractor shall provide all the necessary means and mobilise SQEP workforce to carry out the works on ITER site. Opening sealing activities will often be performed in areas with limited and/or difficult access for plant and materials. Close coordination with other contractors will be therefore essential.

The works will need to be carried out in line with ITER project schedule, within short timeframes with strict adherence to start and completion dates and not systematically in continuous interventions. Furthermore, some of the works will require reactivity and will need to be started with short notice.

The future contract terms and conditions will likely include provisions from the “Short Form of Contract”, edition 1999 published by the Fédération Internationale des Ingénieurs-Conseils also called “FIDIC GREEN BOOK 1999” (FIDIC Copies of the Green Book can be obtained directly from the FIDIC web site [fidic.org/bookshop](http://fidic.org/bookshop)).

All applicable environment, safety and health provisions for work on the ITER Site shall also be closely implemented.



Example of mock ups realised as part of qualification works

### Experience

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

The ITER Organization is looking for applicants able to demonstrate experience in all the above listed activities, particularly regarding the capacity to undertake design and qualification efforts for fulfilment of nuclear safety demonstration.

The Contractor shall be able to demonstrate experience of working in nuclear environment where procedural rigour and traceability is of high importance.

The Contractor shall communicate effectively in the English language and prepare necessary documentation in English.

The Contractor shall have ISO 9001 and OSHAS 18001 certifications or similar.

### 3 Estimated expected durations

No.	Milestones	Date
T0	Kick Off Meeting	Early 2025
T1	Design and Qualification	T0 + 12 to 18 months
T2	Onsite Installation works	T1 + 12 to 36 months
T3	Completion activities	T2 + 0 to 6 months
<b>Total estimated duration</b>		<b>T0 + 48 months to 54 months</b>