

Type of document	Technical Specifications
IDM number (If required)	--
INDUS number	
References	
Current Document phase	Approved
Current Document Version	V0
Version date	03-05-2024

Title	Annex-1: Technical specifications for “Logistics Services for Transportation of Torus Cryo Pump Housing (TCPH) & auxiliary items from India to France”
-------	---

Author	ITER-India
Contributors	-

Distribution list	Empaneled LLSPs
-------------------	-----------------

Written by	Reviewed by	Approved by
ITER-India	ITER-India	ITER-India
<i>Signature/s in sequence</i>	<i>Signature/s in sequence</i>	<i>Signature/s in sequence</i>

Contents

Abbreviations (in alphabetical order).....	3
1. Introduction.....	3
1.1 Introduction to ITER Project.....	3
1.2 Introduction to Torus Cryo Pump Housing.....	3
2. Scope of Work.....	3
3. Delivery to ITER Site	5
4. General Terms and Conditions.....	5
5. Technical Details of shipment.....	6
6. Incoming Inspection and Acceptance Criteria	6

Abbreviations (in alphabetical order)

DAP - Deliver at Place
FCA - Free Carriage
GPMM - Grand Port Maritime de Marseille
JNPT - Jawaharlal Nehru Port Trust
LSP - Logistic Service Provider
LLSP - Local Logistic Service Provider
TCPH - Torus Cryo Pump Housing

1. Introduction

1.1 Introduction to ITER Project

ITER is a unique collaboration involving more than half of the global humanity. The ITER partners are the Peoples Republic of China, The European Union, India, Republic of Korea, Japan, Russian Federation and the United States of America. ITER will be built mostly through in-kind contributions from the participant countries Domestic Agencies (DAs) in the form of components manufactured by DAs and delivered/installed at ITER.

ITER-India (Purchaser) is the Indian Domestic Agency (INDA) responsible for delivering India's contributions to the ITER Project. It is a specially empowered project within the Institute for Plasma Research, which is an autonomous institute under the Department of Atomic Energy (DAE), Government of India. ITER-India has 09 procurement packages to be delivered to the ITER Project. More information is available in the web site www.iterindia.in

Daher Technologies, France have been appointed by ITER Organization as the Logistics Service Provider (LSP) to the ITER project with framework agreement. Daher Technologies, France will work with the LLSP appointed by ITER-India wherever necessary.

The bidders should note that ITER being an international collaboration they will uphold the prestige of India in matters of execution of the work under this contract.

1.2 Introduction to Torus Cryo Pump Housing

There are six (6 Nos) ITER Torus Cryo Pump Housing and related auxiliary items. TCPH is a stainless-steel housing for support the ITER Cryo-pumps and provides volume for regeneration. The TCPH has integrated double bellows welded and fixed with tie-rods in the cylinder area.

The present scope is limited to the transportation of **six (6 Nos) TCPH and its related auxiliary items** as per packing list I-I/CRYOSTAT/EXPORT/1717/2023-24. Each TCPH is equipped with lifting lugs and is supported on a metallic frame and restricted with the help of slings. The auxiliary items are packed in wooden package as mentioned in the packing list.

2. Scope of Work

The scope of work includes the following:

1. Road Transportation of six (6 Nos) TCPH with its auxiliary items from collection point to ICD/CFS Nhava Sheva/JNPT Port on standard low bed low bed trailer with air suspension system.
2. Stuffing of Cargo on 20 ft Flat Rake Container & 20 ft GP container & subsequent transportation of Container to Nhava Sheva/JNPT Port.
3. Ocean Transportation 20 ft Flat Rake Container & 20 ft GP container from Nhava Sheva/JNPT Port to delivery point.
4. Route surveys, permissions, and legal compliances necessary to carry out full scope of work.
5. Custom clearance/documentation activities at the Nhava Sheva/JNPT Port.
6. All lifting devices and accessories for the handling of TCPH & its related auxiliary items shall be provided by the bidder. Please refer Annexure-II (TCPH Handling Drawings).
7. Ocean Transportation of 20 ft Flat Rake Container should be performed under deck.
8. Trans-shipment is not allowed.

Tentative readiness of cargo: 30th June 2024

The address of collection point and delivery point are as follows:

Collection point:	Vacuum Techniques Pvt. Ltd. 2/13, 1st Stage, 1st Phase, Peenya Industrial Area, Bangalore, Karnataka 560058 INCOTERM 2020: FCA at collection point (free on Truck)
Delivery point:	FOS Sur Mer (GPMM), France (Delivery on Board) (NOTE: shipment from delivery point to ITER Site will be managed by Daher Technologies, France)
INCOTERM 2020:	DAP at delivery point, FOS Sur Mer (GPMM), France (Delivery on Board)
Means of transport:	Road & Sea (Multimodal)

Duration for Transportation: The components shall be picked up from the collection point within **45 calendar days** from the date of intimation from the Purchaser for readiness of the cargo.

2) The Transportation of each package shall be completed (Delivered at delivery point) within **75 calendar days** from the initiation of the transport.

3) The Transporter shall inform the Purchaser **at least five working days** before about the exact date of pick-up of items at the collection point.

3. Delivery to ITER Site

The scope for transportation of TCPH & its auxiliary items is limited to Fos Sur Mer (GPMM), France Only. The transportation from FOS Sur Mer (GPMM), France to ITER Organization, France will be managed by Daher Technologies under the Global Framework Contract with ITER Organization.

Final Destination of Cargo: ITER Storage
ITER ORGANIZATION,
Route de Vinon sur Verdon, CS 90046
13067 St Paul-Lez-Durance

4. General Terms and Conditions

- (a) The bidder should carefully go through the technical details of the cargo before submitting the bids in the price bid format (Annex-III).
- (b) Upon selection for executing the shipment, the successful bidder shall submit the shipping plan of load, quality plan, method statement and other necessary documents for transportation to ITER-India/ITER Organization in co-ordination with Daher Technologies, France.
- (c) The method statement should contain the lifting plan at all handling points including details like type & capacity of crane, type & capacity of lifting devices to be used with drawings. (Lifting and Handling drawing).
- (d) The 20 ft flat rake container shall be placed under deck position only.
- (e) Trans-shipment is not allowed.
- (f) Detention of the trailer, and additional loading/unloading (if any) is included in the scope of the bidder.
- (g) The Ad-valorem insurance for the whole transportation will be arranged by the purchaser under the Global Framework Contract of the ITER Organization managed by Daher Technologies, France. The invoices for the Ad-valorem insurance and insurance certificate will be submitted by bidder after obtaining from Daher Technologies, France for release of payment by the Purchaser to the Bidder for reimbursement to Daher Technologies, France.
- (h) It may be noted that an independent third-party surveyor will be appointed by Daher Technologies for inspection at all handling points during the course of transportation as per the Global Framework Contract. The invoices for the third-party surveyor and surveyor reports will be submitted by bidder after obtaining from Daher Technologies, France for release of payment by the Purchaser to the bidder for reimbursement to Daher Technologies, France.
- (i) In case of insurance claim, the Contractor shall provide all necessary documents as required by the Purchaser.

5. Technical Details of shipment

1. TCPH will be shrink wrapped with provision of lifting lugs outside. TCPH will be fastened with the transport fixture with the help of slings and stoppers.
2. Lashing of the TCPH shall be done using the lugs provided on the transport fixture. Care should be taken that lashing belts do not damage the packing.
3. Accelerometers will be mounted on the transport fixture with a limit of maximum acceleration as 5g.
4. The component shall adequately rest on the trailer/container and justification of the stability for transport configuration should be provided by the bidder.
5. TCPH Handling and Transport fixture drawings are as per Annex-II & III respectively which provide details of the lugs, centre of gravity, min sling length etc.
6. The bidder shall submit (before execution of logistics) lashing calculation for lashing of TCPH on the trailer and ship. Approval of lashing calculation is necessary before the commencement of transportation.
7. The bidder shall take photos and provide the same to the Purchaser, which need to be taken at various stages loading, unloading, during transport etc.

6. Incoming Inspection and Acceptance Criteria

The packages, once received at ITER site, will undergo inspection and following acceptance criteria is applicable.

- (a) The transported components shall not be physically damaged (visual inspection will be carried out).
- (b) The transported components shall not be subjected to accelerations more than 5g as defined in Technical Information (accelerometers readings will be checked).
- (c) Pressure inside the TCPH along with Bellows shall remain above atmosphere (should not be less than 0.1kg/cm² above atmospheric) (pressure gauge readings will be checked).

An incoming inspection report will be prepared for formal closure of the shipment.

In case, the above-mentioned acceptance criteria are not satisfied, the rectification / additional test will be carried out by the Purchaser and the cost associated with it will be claimed against the Ad-valorem Insurance.