

CSIR- NATIONAL PHYSICAL LABORATORY

Dr. K.S. Krishnan Marg,
New Delhi – 110012 (INDIA)

Contact: 011-4560-8219/8624

Email: srcosp.nplindia@csir.res.in
spo.nplindia@csir.res.in
purchaseso1.nplindia@csir.res.in
diksha.2025@csir.res.in

From: Director, CSIR-NPL
No. 14-VIII/SK(44-OTE)25PB/T-157

Dated:09.02.2026

CORRIGENDUM

With reference to NPL's Global Tender ID: **2026_CSIR_264643_1** for "**Heat Treatment Line for Carbonization**". All the prospective bidders are hereby informed that some changes have been made in the technical specification of captioned tender. Revised specifications are as follows:

Original Specifications	Final Specifications
As tendered	Attached as Annexure I

Revised Technical specifications (Annexure-I) is also ATTACHED with this Corrigendum. Accordingly, all the interested bidders may submit their Offer as per revised technical specification.

Please also note that bids submitted without taking these changes into consideration will be rejected summarily.

All other terms will remain the same. The same is also available on CSIR-NPL official website <http://www.nplindia.in> under Tender link.



Sr. Controller of Stores and Purchase

FORM TO BE FILLED BY IO WHILE CONVENING PRE-BID MEETING OF TSC

File No.: 14-VIII/SK(44-OTE)25PB/T-157

Date: 03-2-2026

Pre-bid Meeting (To be typed clearly by the I/O)

Name of Indentor: **Dr. Saroj Kumari**
Indent No.: **PR4031812025 dated 10-11-2025**
Item Description: **Heat treatment line for carbonization**
No. of Budgetary Quotes: **Two**

(1) A pre-bid meeting of TSC was held on **03-2-2026**.

(2) Following queries were raised by participating Bidders:

Name of the Firm	Queries Raised	Remarks, if any
1. M/S Nano Tec, Chennai	Clarification and detailed specification required for S.No. 15	

Indentor's recommendation

1. The comments, as received from bidders during PBC, and our response is as follows:

Tender Specification and its number	Comment of bidder	Response of Indentor (Accepted/ Not accepted)	Revised specification (If any)	Justification for non-acceptance
S.No. 15: Exhaust system to remove volatiles from the furnace to a scrubber	Clarification and detailed specifications for S. No. 15, related to type of exhaust, design parameters, capacity/flow rate, interface requirement with the scrubber system, and any applicable standards or special requirements	Accepted	S.No. 15: Exhaust hood type system made of stainless steel to remove volatiles, with ~2 HP exhaust blower, stainless steel ducting connected to water based scrubber	--

Final recommended specifications are as attached at Annexure 1 and signed by I/O:

Corrigendum to Tender may be issued/ may not be issued.

Recommended Revised Date of Tender submission (if any) is _____

The specifications are generic and broad based.

Submitted to TSC for necessary approvals.

FORM TO BE USED BY TSC FOR FINALISING PRE-BID MINUTES

File No.: 14-VIII/SK(44-O TE)25PB/T-157

Date: 03-2-2026

TSC Minutes

Based on the Pre-bid meeting and recommendation of I/O, following changes have been made in the specifications:

Original Specifications	Final Specifications
S.No. 15: Exhaust system to remove volatiles from the furnace to a scrubber	S.No. 15: Exhaust hood type system made of stainless steel to remove volatiles, with ~2 HP exhaust blower, stainless steel ducting connected to water based scrubber

The file is forwarded to Purchase Section for uploading the final specifications and TSC minutes on the website and CPPP Portal.

Declaration: We hereby declare that we have no conflict of interest with any of the bidder in this tender

Revised technical specifications

Name of item: Heat treatment line for carbonization

Quantity:01

Specifications

1. A multi-zone (seven) horizontal carbonization furnace up to 1000 °C to be designed for the heat treatment of fibers. Different interconnected temperature zones are as follows:
 - i. 400 °C, ii. 500 °C, iii. 600 °C, iv. 700 °C, v. 800 °C, vi. 900 °C and vii. 1000 °C
2. Each zone must have a separate temperature controller
3. A water/gas-based cooling system under inert atmosphere must be attached at the end of the furnace to lower the temperature to at least 200 °C before exposing to air
4. Size of heating tube in the chamber: inner diameter 50-70 mm, length 1200-1300 mm, material: SS/ Alumina/ Quartz
5. Heating rate: 1 to 10 °C/min or higher
6. Length of heated constant zone is ~1000 mm or more for each zone with temperature uniformity: $\pm 10^{\circ}\text{C}$ or better and temperature accuracy: $\pm 5^{\circ}\text{C}$ or better
7. At least three suitable thermocouples in each zone
8. High-quality ceramic-based insulation material to be used
9. It must have an inlet inert gas (Nitrogen/Argon) system with a facility for uniform flow of gas
10. It should have a guiding system at the input to keep the fiber in the central line axis
11. Variable speed of fiber forwarding drive 0.1 to 0.5 meter/min
12. Roller stand with tension control system
13. The whole system must have a computer control unit to adjust, monitor and control the temperature of furnace zones, speed of fiber, speed of cooling/blower system, tension, etc. Software to display progress, heating profile, gas pressure etc.
14. The system with comprehensive safety features and audio-visual alarms for all faults such as overheating, overloading, thermocouple failure, gas pressure, etc to be provided
15. Exhaust hood type system made of stainless steel to remove volatiles, with ~2 HP exhaust blower, stainless steel ducting connected to water based scrubber
16. The fiber handling system shall be demonstrated to the customer at CSIR-NPL during the installation as per specifications
17. Warranty: One year
18. Power: as per Indian requirement