



सीएसआईआर-कोशिकीय एवं आणविक जीवविज्ञान केन्द्र
CSIR-CENTRE FOR CELLULAR & MOLECULAR BIOLOGY
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)
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File Ref: 900/15072026/1531/EQPT

Date: 17.08.2026

CORRIGENDUM
(EXTENSION OF TIME FOR SUBMISSION OF TENDERS WITH
MODIFIED SPECIFICATIONS)

TENDER ID: 2026 CSIR 285654 1

EXTENSION OF TIME FOR SUBMISSION OF BIDS AND UPLOADING OF MODIFIED
TECHNICAL SPECIFICATOINS FOR SUPPLY INSTALLATION TESTING AND
COMMISSIONING OF LIQUID NITROGEN PLANT

This has reference to the Tender Document published on 28.07.2026 for procurement of
Supply Installation Testing and Commissioning of Liquid Nitrogen Plant work.

The Modified Tender Specifications are attached as Annexure-I.

The dates with regard to the submission of Bids are extended as detailed below:

	Existing Schedule	Revised Schedule
BID submission End Date & Time	18.08.2026 – 14.30	02.09.2026 – 14.30
Date & Time for opening of Bids	19.08.2026 – 14.30	03.09.2026 – 14.30

“Stores & Purchase Officer, CCMB, Habsiguda, Uppal Road, Hyderabad-500007”.


Sudhanshu Shekhar Choudhary
Controller of Stores & Purchase Officer

Technical Specifications

As per tender S. No.	Tender Original specification		CSIR-CCMB
1	Liquid Nitrogen Plant- 2 Sets/No's (Each 10 litre/hour)	Liquid Nitrogen Production Capacity: 10 litre/hour or above at 1 barg. Site Conditions: 1. Altitude: 542 M above sea level 2. Maximum ambient temperature: + 45°C 3. Minimum ambient temperature: +15°C. 4. Relative humidity: 60% to 90% at 25°C 5. Liquid Nitrogen delivery Pressure: ≤1 barg 6. Purity of Liquid Nitrogen: 99% and above at 1 barg 7. Mode of Operation: Fully Automatic and Manual 8. Restart after power failure: Auto-restart after any period of power resumption 9. Cool-down Time : 2 Hours or Less 10. Defrosting / Purging: No Defrosting / Purging should be necessary. 11. Start-up Time (Minutes):Less than 15 minutes 12. Noise Level: Should be <85 dBA.	Liquid Nitrogen Plant- 1 No's (2 No's of Cryo-generator /Cold Head/ Liquifier capacity- Each 10 litre/hour or above) Site Conditions: 1. Altitude: 542 M above sea level 2. Maximum ambient temperature: + 45°C 3. Minimum ambient temperature: +15°C. 4. Relative humidity: 60% to 90% at 25°C 5. Liquid Nitrogen delivery Pressure: ≤1 barg 6. Purity of Liquid Nitrogen: 99% and above at 1 barg 7. Mode of Operation: Fully Automatic and Manual 8. Restart after power failure: Auto-restart after any period of power resumption 9. Cool-down Time : 2 Hours or Less 10. Defrosting / Purging: No Defrosting / Purging should be necessary. 11. Start-up Time (Minutes):Less than 15 minutes 12. Noise Level: Should be <85 dBA.
2	Interlocks	Liquid nitrogen plant shall necessarily include following interlocks: 1. High moisture 2. High temperature 3. Auto drain 4. Low oil pressure 5. Overload protection 6. Auto stop with liquid level indicator 7. Saturation of adsorbers 8. High oil pressure 9. High pressure 10. Low water pressure etc.,	Liquid nitrogen plant shall necessarily include following interlocks: 1. High moisture 2. High temperature 3. Auto drain 4. Oil pressure safety 5. Overload protection 6. Auto stop with liquid level indicator 7. Saturation of adsorbers 8. Low water flow etc.,

As per tender S. No.	Tender Original specification		Modified Tender Specifications
5	Operation and Control	The plant's operation and control system shall be PLC based and shall be operable fully manual and automatic mode through touch screen/HMI/ GUI of control panel, single switch, PLC controlled operation. After starting of the plant cool down, it should produce liquid nitrogen into a liquid storage tank without any further operator involvement. A suitable computer shall be included in the supply for maintaining of PLC & control system GUI. The PLC also detect and give alarms for the following failures: -The PSA nitrogen purifier shall be controlled by the main PLC -Emergency stop button -Phase sequence failure -Nitrogen Pressure, -Run Hours, -Liquid Nitrogen production level - Low/High Voltage - Low air pressure - High cooling water temperature - Low cooling water flow - Low dewar pressure - Low PSA pressure - Dryer failure. - Auto-purge failure -High cabinet temperature etc.,	The plant's operation and control system shall be PLC based and shall be operable fully manual and automatic mode through touch screen/HMI/ GUI of control panel, single switch, PLC controlled operation. After starting of the plant cool down, it should produce liquid nitrogen into a liquid storage tank without any further operator involvement. A suitable computer (Latest desktop computer with i7 Processor, 32 GB RAM, 1TBSSD,2TBHDD,23" Monitor,window 10/11 with key board and mouse) shall be included in the supply for maintaining of PLC & control system GUI. The PLC also detect and give alarms for the following failures: -The PSA nitrogen purifier shall be controlled by the main PLC -Emergency stop button -Phase sequence failure -Nitrogen Pressure, -Run Hours, -Liquid Nitrogen production level - Low/High Voltage - Low air pressure - High cooling water temperature - Low cooling water flow - Low dewar pressure - Low PSA pressure -Dryer failure -High cabinet temperature etc.,

As per tender S. No.	Tender Original specification		Modified Tender Specifications
6	Maintenance kit and spares	Supplied spare kit shall cover all required spare parts for 12,000 hours' operation of plant. The spares shall necessarily include the following: 1. Moisture level probe and display unit 2. Auto drain unit and its spares 3. Flexible coupling of compressor 4. Pressure gauges for suitable pressure. 5. Spare oil for one fill 6. Oil filters 7. Filter cartridge 8. Spare activated carbon charcoal and compound (full quantity) for air purification unit etc., as per the requirement	Supplied spare kit shall cover all required spare parts for 12,000 hours' operation of plant. The spares shall necessarily include the following: 1. Moisture level probe and display unit 2. Auto drain unit and its spares 3. Flexible coupling of compressor 4. Pressure gauges for suitable pressure. 5. Spare oil for one fill 6. Oil filters 7. Filter cartridge 8. Spare carbon filter and compound (full quantity) for air purification unit etc., as per the requirement (Carbon filter with oil removal 0.005 mg/m³ suitable to zero loss internal float drain, with pressure differential indicator, working pressure max 10 bar).
8	Nominal Operating Conditions	Complete system should work with three phase electrical power (415 V $\pm$5%, 3 Phase, 50$\pm$1.0 Hz) for LN2 plant as a single tie-in point. No tapping shall be allowed for distributing the power.	Complete system should work with three phase electrical power (415 V $\pm$5%, 3 Phase, 50$\pm$1.0 Hz) for LN2 plant as a single tie-in point.
16	Cryo-generator or Cold box	Cryo generator or Cold box shall be equipped with all necessary components required for the production of not less than 10 litres/hour liquid nitrogen or more of purity 99 % at 1 barg. Helium compression system to be tightly sealed from the helium gas space or the cryo. i) Cryo-Generator with motor etc., ii) PSA based Nitrogen Generator and buffer tank. iii) Helium system pre-charged with Helium. iv) All above units interconnected with PLC based electrical system. Including HMI screen to monitor and control critical parameters of the plant. (v) Top up Oil for Cryo-generator & Compressor for five years should also be Provided on timely basis.	Each Cryo-generator or Cold head shall be equipped with all necessary components required for the production of not less than 10 litres/hour (Total/capacity of both cryo-generator/ Cold Head -20 litres/hour or above) liquid nitrogen or more of purity 99 % at 1 barg. Helium compression system to be tightly sealed from the helium gas space or the cryo. i) Cryo-Generator/cold head with motor etc., ii) PSA based Nitrogen Generator and buffer tank. iii) Helium system pre-charged with Helium. iv) All above units interconnected with PLC based electrical system. Including HMI screen to monitor and control critical parameters of the plant. (v) Top up Oil for Cryo-generator & Compressor for five years should also be Provided on timely basis.

As per tender S. No.	Tender Original specification		Modified Tender Specifications
18	Helium cylinder & regulator etc.,	Helium cylinder along with pressure regulator and SS316 pipeline must be provided for LN2 Plants.	Helium cylinder along with pressure regulator and copper pipeline must be provided for LN2 Plants. (If required)
20	Vacuum insulated liquid transfer line	Transfer pipeline (SS 316) shall be of suitable length(3 Metres) to interconnect the cold box/ cryo-generator to the liquid nitrogen storage tank as per the site condition and also interconnect the cold box/ cryo-generator to liquid nitrogen storage tank.	The SS 316 Liquid Nitrogen transfer pipeline shall be approximately 0.5 meters in length to interconnect the cold box/cryo-generator to the storage tank and a separate SS 316 Liquid Nitrogen transfer pipeline of 3 meters in length shall interconnect the liquid nitrogen storage tank to the liquid nitrogen container.
23	Special tools set	Vendor(s) must provide the tools set for plant servicing and repairs for 12000, 24000 and 36000 hours should be supplied.	Vendor(s) must provide the tools set for plant Preventive Maintenance and Overhauling/ Servicing and repairs of complete system.
29	Acceptance Criteria	The following operations are required to be tested during the final commissioning and testing at CSIR-CCMB. 1. Start up and Shut down operation 2. Compressor operation 3. Demonstration of rated liquefaction capacity after continuous running for 24hours 4. Cool down time for Dewar and production of minimum 10 l/hr of LN2 should be demonstrated 5. Documentary evidence of LN2 purity test 6. Auto shut-down and auto-start 7. Manual to auto switch and vice versa 8. Auto-restart after power failure 9. Emergency stop button and Demonstration of all the interlocks as mentioned above	The following operations are required to be tested during the final commissioning and testing at CSIR-CCMB. 1. Start up and Shut down operation 2. Compressor operation 3. Demonstration of rated liquefaction capacity after continuous running for 24 hours 4. Cool down time for Dewar and production of minimum 20 l/hr (Each Cryo- Generator/cold head/ Liquefier- 10 l/hr capacity or above) of LN2 should be demonstrated 5. Documentary evidence of LN2 purity test 99% and above 6. Auto shut-down and auto-start 7. Manual to auto switch and vice versa 8. Auto-restart after power failure 9. Emergency stop button and Demonstration of all the interlocks as mentioned above

Sl. No.	Query on EMD Exemption for MSME	Clarification of CCMB
1	Regarding the Acceptance Criteria in MSME case and whether any EMD exemption clause applicability.	Clause 3 of the Invitation for Bids/NIT (Page 2) and Clause 1.16.8 under C. Preparation of Bids of Chapter 1 (Page 22) of the Tender Document may please be referred along with the MSME rules and the MII rules regarding the availability of EMD Exemption.