

FORM TO BE FILLED BY IO WHILE CONVENING PRE-BID MEETING OF TSC.**File No.14-VII/MPO(3062-GTE)25PB****Date:22/09/2026****Pre-bid Meeting(To be typed clearly by the I/O)**

Name of Indentor. _____ Mahavir Prasad Olaniya _____

Indent No. _____ PR6012232025 _____

Item Description _____ Active Hydrogen Maser with Environmental Chamber _____

No. of Budgetary Quotes _____ 01 _____

(1) A pre-bid meeting of TSC was held on _____ 22/09/2026 _____.

(2) Following queries were raised by participating Bidders (2 bidders):

Name of the Firm	Queries Raised	Remarks, if any
M/s Amil Ltd	1. Regarding Allan Deviation/Frequency Stability @1,00,000s 2. Regarding Magnetic Sensitivity	1. The vendor mentioned that in order to study Allan deviation at 1,00,000s it requires a prolonged stabilisation/aging period and may not be guaranteed or practically demonstrated at the time of FAT. 2. The vendor requested to modify the tendered specification for magnetic sensitivity from $\leq 1 \times 10^{-14}/G$ to $\leq 2 \times 10^{-13}/G$.
M/s Western System	Nil	Nil

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 (M/s Amil Ltd)	Response of Indentor (Accepted/ Not accepted)	Revised specification (If any)	Justification for non-acceptance

Frequency Allan deviation Stability (0.5 Hz (time, s)bandwidth) $1,00,000s \leq 1.0 \times 10^{-16}$ (Point no. 4 in tendered specification)	We request that this requirement may be suitably modified or the acceptance criteria clarified, as achieving this level of long-term stability requires a prolonged stabilisation/agi ng period and may not be guaranteed or Practically demonstrated at the time of FAT	Not accepted	Nil	This is a critical item and the flywheel of Indian Standard Time (IST). So, specification cannot be compromised.
Magnetic Sensitivity $\leq 1.0 \times 10^{-14}$ /Gauss (Point no. 6 in tendered specification)	Specified: $\leq 1 \times 10^{-14}$/G Requested: $\leq 2 \times 10^{-13}$/G We request consideration of the above revised value, which provides adequate immunity to normal fluctuations in the Earth's magnetic field while allowing technically suitable and established Active Hydrogen Maser solutions to participate.	Not accepted	Nil	This is a critical item and the flywheel of Indian Standard Time (IST). So, specification cannot be compromised.

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

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

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

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-VII/MPO(3062-GTE)25PB

Date:22/09/2026

TSC Minutes(To be typed clearly by the I/O)

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

Original Specifications	Final Specifications
Tendered Specification	Tendered Specification (No Change)

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

Annexure-1

Specifications of Active Hydrogen Maser with Environmental Chamber

Sr. No.	Parameters	Specifications	
1.	Frequency Output and Number 5 MHZ (2No.) 10 MHZ (2No.) 100 MHZ (2No.)	5 MHZ (2No.) 10 MHZ (2No.) 100 MHZ (2No.)	
2.	Number of Pulse Output 1PPS	1PPS(2No.)	
3.	Output 1PPS: Amplitude Pulse width Rise Time	TTL Compatible $\geq 2.5V$, 50 Ohms $\leq 50 \mu s$ $\leq 5 ns$	
4.	Frequency Stability (time, s) 1s 100s 10,000s 1,00,000s	Allan deviation (0.5 Hz bandwidth) $\leq 1.0 \times 10^{-13}$ $\leq 5.0 \times 10^{-15}$ $\leq 1.0 \times 10^{-15}$ $\leq 1.0 \times 10^{-16}$	
5.	Temperature Sensitivity	$\leq 2.0 \times 10^{-15} / ^\circ C$	
6.	Magnetic Sensitivity	$\leq 1.0 \times 10^{-14} / Gauss$	
7.	Phase Noise (dBc/Hz) 1Hz 10Hz 100Hz	5MHz ≤ -125 ≤ -145 ≤ -150	10MHz ≤ -120 ≤ -130 ≤ -140

8.	Operating Temperature	15-30 ⁰ C
9.	Power Supply (External)	AC 200-240V at 50Hz and 24-27 V DC
10.	Environmental Chamber Specifications	Temperature 23 ± 0.2 °C
11.	Warranty	Three-year warranty
12.	Software control, Interface, and Manual	a. A complete system with required software with perpetual license for control and monitoring of internal operational parameters and function control via RS-232/USB should be provided. b. This system should support remote access through the network. c. The AHM operational manual needs to be provided in hard and soft copies.
13.	Calibration/Test Report	The factory acceptance test report/ calibration report should be provided prior to delivery of the item.