

**National Environmental Engineering Research Institute,  
Nehru Marg, Nagpur-440 020**

---

**TITLE: Expression of interest and pre-indent conference for supply of Fully automated High Resolution Gas Chromatograph Sector Mass Spectrometer for analysis of Dioxin and furans and related compounds.**

The Institute invites Expression of Interest (EOI) for supply of **Fully automated High Resolution Gas Chromatograph Sector Mass Spectrometer for analysis of Dioxin and furans and related compounds**. The EOI must reach the Institute by **17<sup>th</sup> August 2010**. A Pre-indent Conference has been scheduled to be held at **11:00 hrs** on **25<sup>th</sup> August 2010** in the Committee Room No. 01 of the institute. The interested parties may depute their technical representatives to make presentation of their product / model(s) and discuss with the committee on the aspects of utility, technology, feature, literature, design, technical parameters, clientele and other related issues of the equipment and material. The committee shall also evaluate the credentials / Technical capabilities / financial standings with track record of the companies / vendors attending PIC. Following documents duly signed and stamped must be invariably submitted by the bidders at the time of PIC.

- I. Technical compliance statement showing compliance of offered specifications with the tentative specifications given in the EOI Notice.
- II. Deviations, if any, in the offered technical specifications with the reasons for deviations.
- III. Printed Technical literature in support of the offered specifications.

Technically competent and sound representative should be authorized for attending Pre Indent Conference.

**The tentative specifications of the Fully automated High Resolution Gas Chromatograph Sector Mass Spectrometer for analysis of Dioxin and furans and related compounds**

Sr. No.	Item	Specifications
1	Mass Range	1200 Da or more at full accelerating voltage
2	Resolution	60,000 or better
3	Scan speed	0.1 to 1000 Sec/dec

4	Sensitivity	EI 5 X10 <sup>-7</sup> C/μg at 1000 resolution for m/z 298 Methyl Sterate CI 5 X10 <sup>-8</sup> C/μg at 1000 resolution for m/z 299 Methyl Sterate
5	Static Mass Measurement	2 ppm at 10,000 resolution for m/z 243 of PFK using ref peaks
6	Ion Source	Complete Ion source for EI and CI
7	Polarity mode	Positive and negative
8	Ion Source Temperature	Upto 350 deg C and controlled to +/- 1 deg. C with temperature feedback.
9	Vaccum system	Turbo molecular pumps backed with fore vaccum pumps with vibration free bearings.
10	Detection System	Electron multiplier / Photo multiplier
11	Auto Sampler	100 vials or more
12	Data station	Fully Automated data acquisition system
13	Software capabilities	Data system should comprises Multiple ion detection, selection of positive and negative ions, Selected ion monitoring, peak matching, Peak detection, Quantitation, Real time reports, full control of analyzer and inlet system Library search and maintenance – NIST/Wiley
14	High resolution Gas Chromatograph with Good Manufacturing Practice (GMP) compliance, Programmable Split/Split less injector port with electronic pneumatic control.	
	Oven	Temperature 5 °C above ambient to 450 °C with 1°C increment
		Column overheat protection maximum upto 450 °C
		Temperature Ramp: 20 ramps settable from 1 °C to 120 °C per minute.
		Cool down temperature 450 °C to 50 °C in 5 minutes or less
	Injection port	Temperature 50 °C to 400 °C in 1 °C increments
		Programmable Split/split less injector
Programmable pneumatic control / Automatic Flow control		

15	Provision for additional injector port facility	
16	Personal computer System	Latest personal computer system with LCD/TFT Monitor, suitable for HRGC/HRMS and its data system with latest laser printer.
17	UPS	30 KVA with maintenance free batteries for one Hour battery backup
18	Training	Extensive two weeks training at the factory for one person in maintenance of instrument and two persons in operating instrument for dioxin and furans analysis
19	Columns	Columns for Dioxin and furans analysis
20	Complete Installation and Test kit	
21	Standards for tuning and calibration of Mass Spectrometer	
22	Operating and service manual	
23	One year warranty	
24	Consumable Spares for two years continuous operation	
25	Operating voltage: 230 V AC / 50 Hz	

Interested parties may submit EOI regarding the supply of **Fully automated High Resolution Gas Chromatograph Sector Mass Spectrometer for analysis of Dioxin and furans and related compounds** by Fax on 0712-2249992 and/or email on [st\\_pur@neeri.res.in](mailto:st_pur@neeri.res.in) as mentioned in the pointer advertisement, Times of India, Mumbai dated 31.07.2010.

**Date: 28.07.2010**

**Stores and Purchase Officer  
NEERI, Nagpur**