



**CENTRAL POLLUTION CONTROL BOARD**  
(Ministry of Environment and Forests, Govt. of India)  
**Parivesh Bhawan, East Arjun Nagar, Delhi-110032**

**EXPRESSION OF INTEREST**

**Sub.: Baseline Survey of Industries for Pilot ETS**

CPCB proposes to engage accredited environmental laboratories / institutions, having valid certification and technical capabilities to conduct "Baseline Survey of Industries (1000 industries) in the states of Maharashtra, Gujarat and Tamil Nadu for Pilot Project of Emission Trading Scheme (ETS) for Particulate Matter (PM) in stationary sources (Stack)". The task involves: (1) Collections of Technical / process information, (2) Material Balance, (3) Monitoring of Source Emission, (4) Evaluation of control equipment including cost assessment etc.

The background materials of the activity including the format for Baseline survey Questionnaire may be seen at <http://www.cpcb.nic.in/> as well as on Govt. tender website <http://www.tenders.gov.in/> . The Interested agencies may submit their EoI to the undersigned on or before August 13, 2013 (3 PM), which will be opened at 3.30 PM on the same day.

(J. S. Kamyotra)  
Member Secretary

Back ground note

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(J. S. Kamyotra)  
Member Secretary

## Background

The Ministry of Environment & Forests, Govt. of India launched a pilot project titled, "Baseline survey of Industries in the states of Gujarat, Maharashtra & Tamil Nadu for pilot project of ETS for particulate matter in stationary sources (Stack)". The fundamental motivation for the project is to make rigorous survey and evaluate whether such innovations can successfully deliver improved environmental outcomes (lower PM emissions), at a reduced cost in addition to the meeting the regulatory norms. The activity aims to compliment and make possible critical objectives of the existing Pilot Project to evaluate Continuous Emission Monitoring Systems (CEMS) and Emission Trading of Particulate Matter (PM) in these states.

In order to evaluate the benefits of the pilot, it is necessary to collect baseline data on the existing situation in industries located in areas participating in the pilot project. This will allow evaluators to compare outcomes with and without CEMS and evaluate costs and benefits of these innovations. In absence of extensive field and industry level data on emission levels, processes, pollution control systems installed and existing pollution abatement technology, a comprehensive baseline survey is required to be conducted are:

1. **Gujarat:** In and around Surat (350 Industries)
2. **Maharashtra:** Aurangabad, Chandrapur, Dombivali, Jalna (300 Industries)
3. **Tamil Nadu:** Chennai Greater Metropolitan Area (Ambattur, Chennai, Maraimalai, Sriperumpudur, Tiruvallur) (350 industries)

## Objectives

- Survey of Industries and filling up the questionnaire, which includes information on (1) Technical / process information, (2) Material Balance, (3) Monitoring of Source Emission, (4) Evaluation of control equipment including cost assessment etc.
- Actual emission monitoring using calibrated iso-kinetic kit including load estimation, performance evaluation of Air Pollution Control Devices.

## Scope

EPA/NABL Accredited Environmental labs / institutions will undertake survey within the stipulated time period (for the desired number of industries) and submit the prescribed survey questionnaire complete in all respects. The survey includes the following:

- Factors relating to current emission levels of participating industries- stack and flue gas characteristics, type of fuel and its consumption, fuel firing system and boiler characteristics, GPS location, other basic industry data, etc.

- Factors relating to cost of air pollution monitoring and control devices-CEMS, Ambient Air Quality Monitoring Systems and Air Pollution Control Devices (APCDs) currently installed with their specifications and current status.
- Measurement of the PM emission levels at the stack and just after the combustion source using approved method of iso-kinetic sampling.

The collection of information through approved survey questionnaire, including stack sampling (iso-kinetic sampling), will be conducted by comprising technical and non-technical persons and submission of report. The technical team will carry out stack sampling (iso-kinetic sampling) and gather the general information of the industries in parallel. The survey will be conducted under the supervision of the CPCB or appointed evaluation experts/research consultants.

The survey is being proposed in area/cluster wise industries and the accredited environmental labs/institutions may **express their interest in undertaking one or more areas of Industrial clusters** [should be capable of undertaking minimum 100 units (approx.) in each cluster / state]. The entire survey is expected to be completed within a period of three months from the date of award of contract.

All selected environmental labs/institutions will be authorized to collect information from the allocated clusters (allocated by CPCB or the respective SPCBs) as per the baseline survey questionnaire and accordingly the respective industries will be directed to extend cooperation to the assigned environmental labs/institution. In case an assigned lab/institution is unable to conduct the survey, they will have to provide a valid justification for the same.

Selected labs/institutions will report to CPCB or a research consultant appointed by CPCB.

## **Eligibility Criteria for Participation**

Interested accredited environmental labs/institutions should fulfill the following basic criteria:

### **Certification Criteria for Selection of accredited Environmental Labs / Institutions:**

- Environmental Labs/institutions should have valid accreditation issued by from NABL (National Accreditation Board for Laboratories), or EPA or be accredited by any State Pollution Control Board in India. The laboratories having certification / accreditation & engaged by SPCBs for special activities viz. third party audit, performance evaluation of APCDs etc. shall be given preferences.
- Accreditation/Certification must include manual stack sampling for measurement of the following parameters: Particulate Matter (PM), CO<sub>2</sub>/O<sub>2</sub> and velocity/flow.

## Infrastructure and Survey Teams

- The labs should have adequate and quality infrastructure to conduct sampling and analyses of particulate matter (PM) as per CPCB guidelines.
- The monitoring kit to be used for sampling should be calibrated. The labs/institutions should also have qualified personnel both in the field as well as in the lab.
- The team should comprise qualified technical staff for iso-kinetic sampling as well as personnel for collection of financial and material balance data from the industries, which is an integral part of the survey. Based on the survey location, the team should have at least two team members who can communicate in local language (Gujarati, Marathi, Tamil, and Hindi – based on location) as well as in English for proper understanding, interpretation and communication of the details of Survey Questionnaire.
- Each laboratory team has to comprise, well versed person with process details, monitoring activity besides monitoring team and laboratory facility for analyses of samples. [It is presumed that a 4-member team would be in a position to complete the task in a day / per industry].

### Other important criteria for selection are:

- Ability to complete task within a specified timeframe (total three months for 1000 units, from the date of award)
- Experience in industry surveys, stack sampling, etc. in the past with documentary evidence.
- The environmental lab/institutions should be financially sound.
- Accredited Laboratories should be capable of undertaking at least 100 units

## Mode of Evaluation/Screening

Technical evaluation of the 'Expression of Interests' shall be undertaken based on the following criteria.

- |                                                                                                                    |            |
|--------------------------------------------------------------------------------------------------------------------|------------|
| a. Certification / accreditations of the laboratory for Specified parameters                                       | – 20 marks |
| b. Work Experience (past & on-going)                                                                               | – 20 marks |
| c. Technical capability (Adequacy of staff, technical team etc.)                                                   | – 20 marks |
| d. Laboratory adequacy to undertake the work (Stack monitoring Kits, Laboratory facility etc. and scientific staff | - 20 marks |
| e. Technical Interaction                                                                                           | – 20 marks |

[Note: Accredited Laboratories should be capable of undertaking at least 100 units (approx.)]

Financial bids shall only be opened for technically qualified & capable to undertake at least 100 units (approx.). Quoting the lowest bid will not be only criteria for

award of the activity. As stated that CPCB proposes to engage accredited laboratories to complete the task in a specified time frame (3 months), thus Technical adequacy and capability will also be considered as selections criteria too. In case of more agencies are found technically suitable and financially non-competitive, the CPCB may award the task to more than one agency in a uniform rate (Technically qualified but lowest quote).

## **Submission of EOI**

Interested accredited environmental labs/institutions fulfilling the above eligibility criteria may submit EOI in a sealed envelope by Speed Post clearly super-scribed *Expression of Interest (Eoi) for Baseline Survey of Industries in the states of Maharashtra, Gujarat & Tamil Nadu for Pilot Project of Emissions Trading Scheme (ETS) for Particulate Matter (PM) in Stationary Sources (Stack)* along with the following information to the Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi- 110032 within the stipulated data & time.

For submission of Eoi, special emphasis may please be described for the following Technical details:

- (a) Type of organization, date of establishment, financial stability (turn over) etc. with supporting documents.
- (b) Strength/specialization relevant to the scope of work and objective
- (c) Relevant experience in survey of industries including experience in industry stack sampling, field surveys, etc.
- (d) Details of key staff to be entrusted for the survey with their curriculum vitae. These details should be specified in terms of the number of teams available to work during survey period. One team will be sent to each industry to complete one survey and teams may be constituted accordingly.
- (e) Areas/cluster wise industries proposed for survey (please specify teams accordingly) and expected timeline to complete the same. One survey is expected to take about a day per industry. Please also specify the area/cluster wise industries that are preferred /possible to survey.
- (f) Accredited Laboratories should be capable of undertaking at least 100 units or its multiple of 100 units. Please specify time duration (state-wise) for 100 units, accordingly.
- (g) No financial bid / offer are required to be submitted with Expression of Interest. Financial offer shall be invited after the Technical Interaction meet.

The Questionnaire for Baseline survey may be seen at CPCB's website (<http://cpcb.nic.in/upload/Tenders/BaselineSurveyQuestionire.pdf>).