

EPCA report no. 20 (May 2006)

**Implementation of lambda under PUC programme in Delhi: Progress
report**

In Response to the Hon'ble Supreme Court Order Dated November 29,
2005

**(In the matter of W.P.(C) No.13029 of 1985; M.C. Mehta v/s UOI &
others)**

May 2006

Environment Pollution (Prevention & Control) Authority
for the National Capital Region

1. Hon'ble Supreme Court's observations and direction on lambda measurement in Delhi

The Hon'ble Supreme Court in its order of November 29, 2005 stated with regard to the implementation of lambda tests in Delhi, that the PUC centers in Delhi would require to upgrade their pollution checking technology to enable lambda measurement. The Hon'ble Court had also noted that, as per the submission made by of the Department of Transport, Delhi Government, the time period required for full implementation of lambda tests in nearly 400 PUC centers in the city would be 6 months.

The uppermost concern of the Hon'ble court has been the decision of the cut point for lambda values for the purpose of the enforcement of lambda tests. The Hon'ble Court had observed that:

"At this stage, it is not in question that it is essential to implement the Lambda Test and, therefore, it is necessary to introduce the technology at the P.U.C. Centres so that they are in a position to undertake such a test. The question as to what shall be the cut-points, i.e, 0.03, 0.05, 0.07 or 0.09, would be examined after the technology has been installed at the P.U.C. Centres. Meanwhile, the pilot tests can also go on so that when the technology is introduced, this Court is also in a position to know the further results of the pilot tests and keep that also in consideration while fixing the cut-points."

With these observations, the Hon'ble Court directed:

"We hope that the Delhi Government will be able to introduce this technology by the end of April, 2006, and, by that time, we will have a further report on this issue from E.P.C.A. List the matter in the first week of May, 2006".

1.1 Current Status

There are nearly 324 PUC centres in operation in Delhi. Out of these 299 centres are equipped with four gas analysers that are needed to test lambda. The Department of Transport of Government of Delhi has submitted a status report in compliance with the Hon'ble Supreme Court order regarding Lambda measurement to EPCA on April 12, 2006.

In this status report the department of transport has informed EPCA that

- For necessary upgradation of the equipments in the PUC centers for lambda measurement the Delhi transport department has issued two circulars in February, 2005 to the PUC centers that set the deadline for the upgradation and also fixed the penalty in case of non-compliance within the stated deadlines. The centers were further instructed to impart training to the personnel of the PUC centers and modify the existing software to carry out the lambda measurement. Some centers have paid the penalty before upgrading their equipment.
- The department has further informed that as on March 31, 2006, about 296 PUC Centres were upgraded for lambda measurement. Subsequently, in May 2006, the department of transport confirmed that all 299 stations have upgraded their four-gas analysers to measure lambda.

1.2 Directions sought from the Hon'ble court

- With regard to the lambda cut point EPCA is assessing the lambda data that has been generated after the court order dated November 29, 2005. The transport department, government of NCT Delhi has submitted lambda data for around 10,000 vehicles to EPCA on April 26, 2006, and is expected to give the next set of data within a week. The analysis of this database will help EPCA to assess the failure rate when the international standard of 1 ± 0.03 (which is the technical requirement of any stoichiometric petrol engine fitted with three-way catalyst and closed loop control and also a regulatory), is applied to the in-use fleet in Delhi as a regulatory norm.

In view of this two months may be granted for the submission of the final report on the matter.

- While EPCA is in the process of analyzing the in-use data, all car manufacturers, Society of Indian Automobile Manufacturers (SIAM) and Automotive Research Association of India (ARAI) be directed to submit the manufacturer's specifications for lambda for all models of cars fitted with three-way catalytic converters that are at variance from the international standard of 1 ± 0.03 . It may be reiterated here that EPCA has already written to all automobile manufacturers in 2004 to submit specifications for lambda value for their vehicles, which are different from the international practice of 1 ± 0.03 . But EPCA received only two responses – from M/s Mahindra and Mahindra Ltd (M&M) and M/s General Motors Ltd (GM). M&M that indicated that they are not in a position to give any specification of lambda value for their vehicles, as this was not a requirement so far. EPCA notes that if companies have been following international practice then they should have been able to provide EPCA with a specified range for lambda, irrespective of the fact that the Indian government had not included it in the type approval certificate as yet.

EPCA would like to emphasize that the new PUC regulation of the government of India has already mandated the (optional) lambda measurement for in-use petrol vehicles fitted with three-way catalytic converters, with a closed loop system. As Delhi has taken the lead to implement it as part of the PUC programme, urgent action is needed to resolve all operational issues and expedite implementation.