



No. 195/PA/DG/EPA/2025  
GOVERNMENT OF THE PUNJAB  
ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL HOCKEY STADIUM FERROZEPUR ROAD, LAHORE  
Dated: 14/01/2025



**Subject: FORMATION OF COMMITTEE TO ESTABLISH THE CORRELATION BETWEEN VEHICLE COMBUSTION EFFICIENCY AND VEHICULAR EMISSIONS**

**WHEREAS**, Environmental Protection Agency (EPA) Punjab is striving hard to provide for the protection, conservation, rehabilitation and improvement of the environment, prevention and control of pollution, promotion of sustainable development.

2. **AND WHEREAS**, it is a matter of growing concern that vehicular emissions are a major source of air pollution in Punjab, responsible for a substantial portion of the overall pollution burden. The continuous rise in the number of vehicles is exacerbating this issue, posing a serious and immediate threat to the environment and public health.

3. **AND WHEREAS**, it is well-established that a strong relationship exists between the combustion efficiency of an engine and the quantity and composition of its exhaust emissions. To better understand this relationship, the EPA Punjab intends to establish a clear correlation between these two critical parameters. This research/study will contribute to a more comprehensive understanding of vehicle emission testing procedures and enhance the efficacy of the compliance regime.

4. **AND WHEREAS**, Section 6(1)(i) of the Punjab Environmental Protection Act 1997 empowers the Environmental Protection Agency (EPA) Punjab to **“establish systems and procedures for surveys, surveillance, monitoring, measurement, examination, investigation, research, inspection and audit to prevent and control pollution...”**

5. **AND WHEREAS**, Section 6(1)(j) of the Punjab Environmental Protection Act 1997 empowers the Environmental Protection Agency (EPA) Punjab to **“take measures to promote research and the development of science and technology which may contribute to the prevention of pollution, protection of the environment, and sustainable development”**.

6. **NOW, THEREFORE**, I, Dr. Imran Hamid Sheikh (PAS), Director General, Environmental Protection Agency, Punjab, in exercise of the powers conferred upon me

under Section 6(1)(i)(j) of the Punjab Environmental Protection Act 1997 do hereby constitute a research committee comprising of the following experts:

Sr. No.	Name	Designation and Department	Remarks
i.	Mr. Farooq Alam	Deputy Director (Lab), EPA Punjab, Lahore	Chairperson
ii.	Mr. Muhammad Gill	Representative of Toyota Motors	Member
iii.	Dr. Muhammad Ali Shahbaz	Assistant Professor Automotive Engineering Department, University of Engineering & Technology, Lahore	Member
iv.	Dr. Rizwan Haider	Research Officer (Air Pollution), EPA Lab, Lahore	Member / Secretary
v.	Any co-opted member to be nominated by the chairperson		

7. The Terms of Reference (TORs) of the committee:

- i. The Committee shall conduct a comprehensive research study to establish a correlation between engine combustion efficiency and exhaust emissions (HC, CO, Smoke, NOx). The study will analyze the impact of varying air-fuel ratios, including stoichiometric and non-stoichiometric mixtures, on emission levels. On-Board Diagnostic (OBD) scanners and Automotive Exhaust Gas Analyzers will be utilized for data collection and analysis.
- ii. The study shall encompass all types of vehicles, including petrol and diesel.
- iii. The Committee shall submit its comprehensive report with findings and recommendations to the undersigned within 05 days of the issuance of this order.

Issued under my hand & seal on this 14<sup>th</sup> day of January, 2025.

DR. IMRAN HAMID SHEIKH (PAS)  
**DIRECTOR GENERAL**  
**ENVIRONMENTAL PROTECTION AGENCY**  
**PUNJAB**

**Copy forwarded for information & necessary action to:**

- i. All members of the Committee
- ii. The Chief Environment & Climate Change, P&D Board, Lahore.
- iii. The Additional Secretary (Foreign Coordination)/Officer In-charge, EP&CCD, CM office, Punjab Lahore.
- iv. The Additional Director General (Ops & Imp), EPA Punjab
- v. The Secretary, Judicial Water and Environment Commission (JWEC), Lahore
- vi. PSO to Minister for Environment, Forest and P&D
- vii. The In-charge Smog War Room, EPA Headquarters, Lahore.
- viii. PS to the Secretary Environment Protection & Climate Change, Punjab
- ix. PA to Director General EPA Punjab

Recd  
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Sub

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