

## **In-Service Conformity(ISC) for Light Duty Vehicles:**

ISC is applicable for BS VI Vehicles. The ISC is conducted on the basis of any relevant information that the manufacturer has, under the same procedures as those for the conformity of production.

The in-service family may be defined by basic design parameters which shall be common to vehicles within the family as defined in AIS 137 Part 3.

The information gathered by the manufacturer shall be sufficiently comprehensive to ensure that in-service performance can be assessed for normal conditions of use. The sampling shall be drawn from at least two regions with substantially different vehicle operating conditions. Factors such as differences in fuels, ambient conditions, average road speeds, and urban/highway driving split shall be taken into consideration in the selection of the regions.

The vehicle shall have been in service for at least 15000 km or 6 months, whichever is the later, and for no more than 100000 km or 5 years, whichever is sooner.

The number of sample lots shall depend on the annual sales volume of an in-service family.

Sample Size	
- Sales volume - per year (for tailpipe emission tests) - of vehicles of an OBD family with IUPR in the sampling period	Number of sample lots
Up to 100,000	1
100,001 to 200,000	2
Above 200,000	3

The in-service tailpipe emissions conformity tests shall be continuously carried out reflecting the production cycle of applicable vehicles types within a given in-service vehicle family. The maximum time period between commencing two in-service conformity checks shall not exceed 18 months. In the case of vehicle types covered by an extension to the type approval that did not require an emissions test, this period may be extended up to 24 months.

## **In Use Performance Ratio Monitoring (IUPR<sub>M</sub>) for Light Duty Vehicles:**

IUPR<sub>M</sub> in-service conformity is applicable from April 2022 for BSVI vehicles approved as per AIS 137 Part 3.

The In-Use Performance Ratio (IUPR) of a specific monitor M of the OBD systems and in-use performance of pollution control devices shall be:

$$\text{IUPR}_M = \text{Numerator}_M / \text{Denominator}_M$$

The OBD/ IUPR<sub>M</sub> family shall be defined by basic design parameters which shall be common to vehicles within the family as defined in AIS 137 Part 3.

For families consisting of fewer than 5,000 registrations that are subject to sampling within the sampling period, the minimum number of vehicles in a sample lot is six.

For all other families, the minimum number of vehicles in a sample lot to be sampled is fifteen.

The number of sample lots shall depend on the annual sales volume of an in-service family.

Sample Size	
- Sales volume - per year (for tailpipe emission tests) - of vehicles of an OBD family with IUPR in the sampling period	Number of sample lots
Up to 100,000	1
100,001 to 200,000	2
Above 200,000	3

Vehicles of small series productions with less than 1000 vehicles per OBD/ IUPR<sub>M</sub> family are exempted from minimum IUPR requirements