

# **IN USE VEHICLES EMISSION POLLUTION CONTROL IN BEIJING**

**Likunsheng Beijing EPB**

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# 1. Remote sensing in Beijing

- Remote sensing method is used from 2005.
- There are 22 removable remote sensing devices and 27 fixed remote sensing devices in Beijing
- The car that exceeds the remote sensing standard needs to go to smog station to retest, and it will be fined if it exceeds again.
- The remote sensing method for HDV is used to analyze and evaluate the vehicle
- We are revising our local law to require the driving HDV that smoke is photographed by the camera will be fine directly

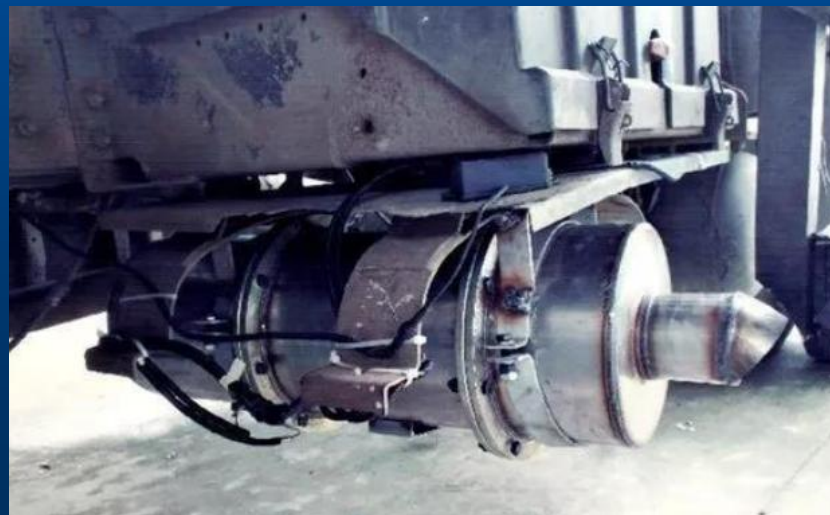
## 2. PEMS testing in Beijing

- Release local standards, a Portable Emissions Measurement System (PEMS) test for whole vehicle, in 2013
- We revised PEMS standard in 2017, including strengthened the limit, and revised the test condition.
- Conformity of Production and In-use Compliance test with PEMS method every year



### 3. Retrofit of vehicle and off-road

- Retrofit of vehicle:
  - More than 9000 heavy diesel vehicles, including buses, coaches, trucks, were retrofitted with DPF in 2008.
  - 8 categories of new urban vehicles such as the buses and garbage trucks that must have wall-flow DPF can be registered in Beijing from Jan. 2016. The number of heavy duty vehicles with DPF is more than 20,000



### 3. Retrofit of vehicle and off-road

- Retrofit of off-road :
  - 25 off –roads are being retrofitted with DPF, include excavators, wheel loaders, compactors, in 2014
  - 4 categories of off-road, such as excavators, loaders, loader-diggers and forklifts that fail to meet the standard of Beijing III emissions standard will be fined 50,000 RMB to 100,000 RMB per off-road within the low emission zone from 2017. So some users will select to retrofit their off-road with DPF to avoid punishment.



## 4. Phase out of old vehicles

- Continuously expand the area and standards of low-emission areas
- Since 2003, the national-0 gasoline vehicles and the diesel vehicles below national-3 standard have been prohibited within the Second Ring Road.
- Since 2017, the gasoline vehicles below national-3 standard have been prohibited within the Fifth Ring Road, and the diesel vehicles below national-4 standard have been prohibited within the Sixth Ring Road.



## 4.Phase out of old vehicles

- Since 2009, the subsidy policy for vehicle elimination has been implemented annually.
- The subsidy for the retired of old vehicles every year in Beijing is about 1 billion RMB from 2009 , and the subsidy reached 1.6 billion RMB in 2017
- The subsidy for the retired of old car is from 2,500 RMB to 4,000 RMB according to the service life, and the average subsidy is about 8,000 RMB per car .
- The subsidy for the retired of old truck is from 3,000 RMB to 100,000 RMB according to the tonnage and service life, and the average subsidy of about 50,000 RMB per truck





- Yellow label vehicles :
  - from 2009 to 2010
  - \$ 750
  - About 156,000 were retired or replaced
  - reduce 315 tons of emissions daily.
- Aged vehicles that served over 6 years (2011-2014)
  - Average \$ 800
  - Over 1.4 million were retired or replaced
  - reduce 300,000 tons of emissions per year
- Aged vehicles that served over 6 years (2015- 2016)
  - aged vehicles must be retired
  - Average \$ 1,000
  - Focus on phase out HDV, up to \$ 6,500 ( include national policy \$ 3,000)
- euro 1 and euro 2 cars , and euro 3 trucks (from 2017 to now )
- **2.167 million old vehicles were eliminated during five years.**

# 5.Regular test



Strengthen regular inspection of motor vehicles

➤ During annual inspection of emission, the LUGDOWN method should be used to check heavy-duty vehicles, and the ASM method should be used to check light-duty vehicles.

Strengthen the regulation made by Beijing EPB. In March this year, Beijing City issued and implemented the "Administrative Measures on the Marking System for Motor Vehicle Inspection and Testing Stations", with 58 marking clauses in total. According to the severity of issues, inspection and testing Stations should be subjected to management measures such as suspension of business for rectification, government's questioning, enterprises self-inspection, even disqualification.

# 6. ROADSIDE TEST AND PUNISH

Strengthen law enforcement on vehicle emissions

- In highway channels, main urban roads and heavy traffic areas with heavy-duty vehicles, environmental protection personnel and traffic polices jointly enforce the law and put the focus on checking smoke intensity, OBD, urea, NOx,etc.
- From January to June this year, **about 150,000 vehicle-times of heavy diesel vehicles with excessive emissions were punished.**





**Thank your attentions**