

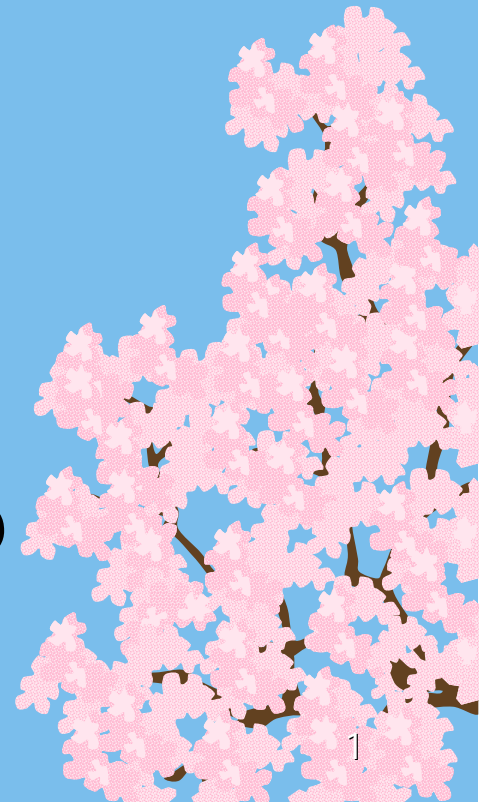
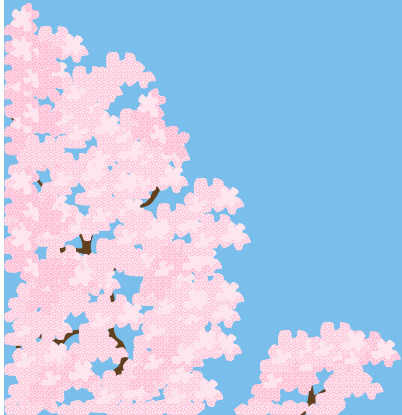
Japan's Situation and Basic Stance on Off-cycle Emission

22 March 2004

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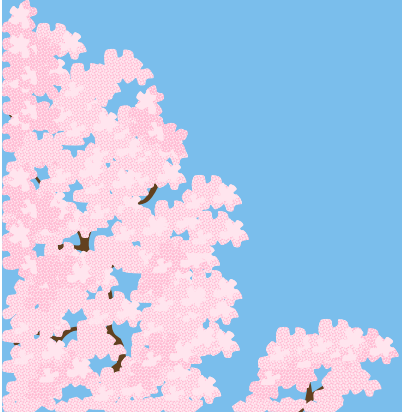


Outline of the presentation

I. Situation in Japan

- Current status and direction
- Actions for off-cycle emission reduction

II. Basic stance on Global-NTE Concept



I. Situation in Japan

Current status and direction

Official view :

- Off-cycle emission may diminish the effectiveness of New-Long-Term regulation (so-called “world most stringent level standard” before 2007 US).
- Off-cycle emission increase should be minimized, except that is necessary for engine protection.
- It is necessary to examine specific measures against off-cycle emission as soon as possible. It is also necessary to assess the effectiveness of such measures.

(summary from “5th Report of CEC”, April 2002)*

*CEC: Central Environment Council,
an advisory board for the Minister of the Environment

Actions for off-cycle emission reduction

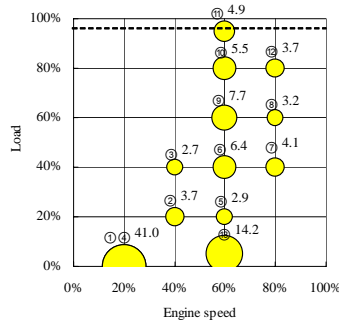
(1) Quasi-regulation for off-cycle emission

- For HD vehicle, both transient and steady-state test cycle data are required from NLT regulation(2005+).

Note: Only transient test data is used for certification, and steady-state test data is only for reference, for the time being.

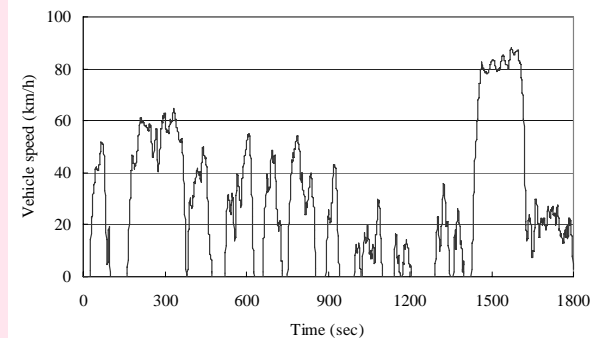
- After that, necessary (“real”) off-cycle emission regulation will be discussed, upon the collected data.

13 mode (Steady-state)



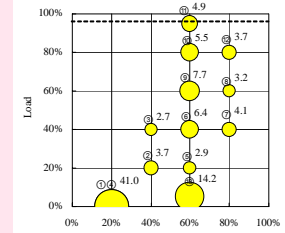
After
2005

JE05 mode (Transient)



(for certification)

13 mode (Steady)



or ESC or WHSC

(for reference)

Exhaust emission regulation for HD Diesel vehicles

	Starting Year	Exhaust emission standard (g/kWh)				Test cycle
		PM	NO _x	HC	CO	
Short-Term Regulation	1994	0.70	6.00	2.90	7.40	D13
Long-Term Regulation	1997	0.25	4.5	2.90	7.40	D13
New-Short-Term Regulation	2003	0.18	3.38	0.87	2.22	D13
New-Long-Term Regulation	2005	0.027	2.0	0.17*	2.22	JE05

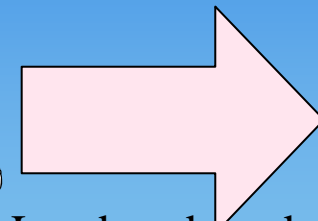
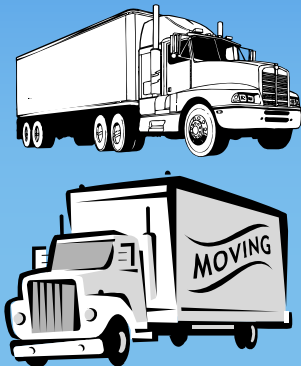
* Measured as “NMHC” after NLT regulation

Outline of 2003 real-world emission survey

GVW class	1994 reg.	1997 reg.	2003 reg.
> 8 t	2	2	1
> 20 t	1	2	-
Total	3	4	1

FY 2003 Surveyed vehicles
(All HD Diesel)

Rent HD vehicles
from fleet users



Load on-board
measurement
devices



Run on road

Main measured items

Items	Note
NOx conc.	
Smoke opacity	Instead of PM
CO, HC conc. (H-NDIR)	Selected vehicles only
Vehicle and engine status	GPS, speed, acceleration, etc.
Intake air	Current, T, P, humidity, etc.

II. Basic stance on Global-NTE Concept

- Japan is highly interested in the Chairperson's Global-NTE Concept proposal. And we hope to be an active participant in the further work on this concept.
- However, in our understanding, the U.S. NTE test is not detailed and articulate enough to be directly adoptable as a test protocol. It is therefore necessary to initiate discussion on a detailed and articulate test protocol.

Thank you !

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