APMT Driving Low Emissions

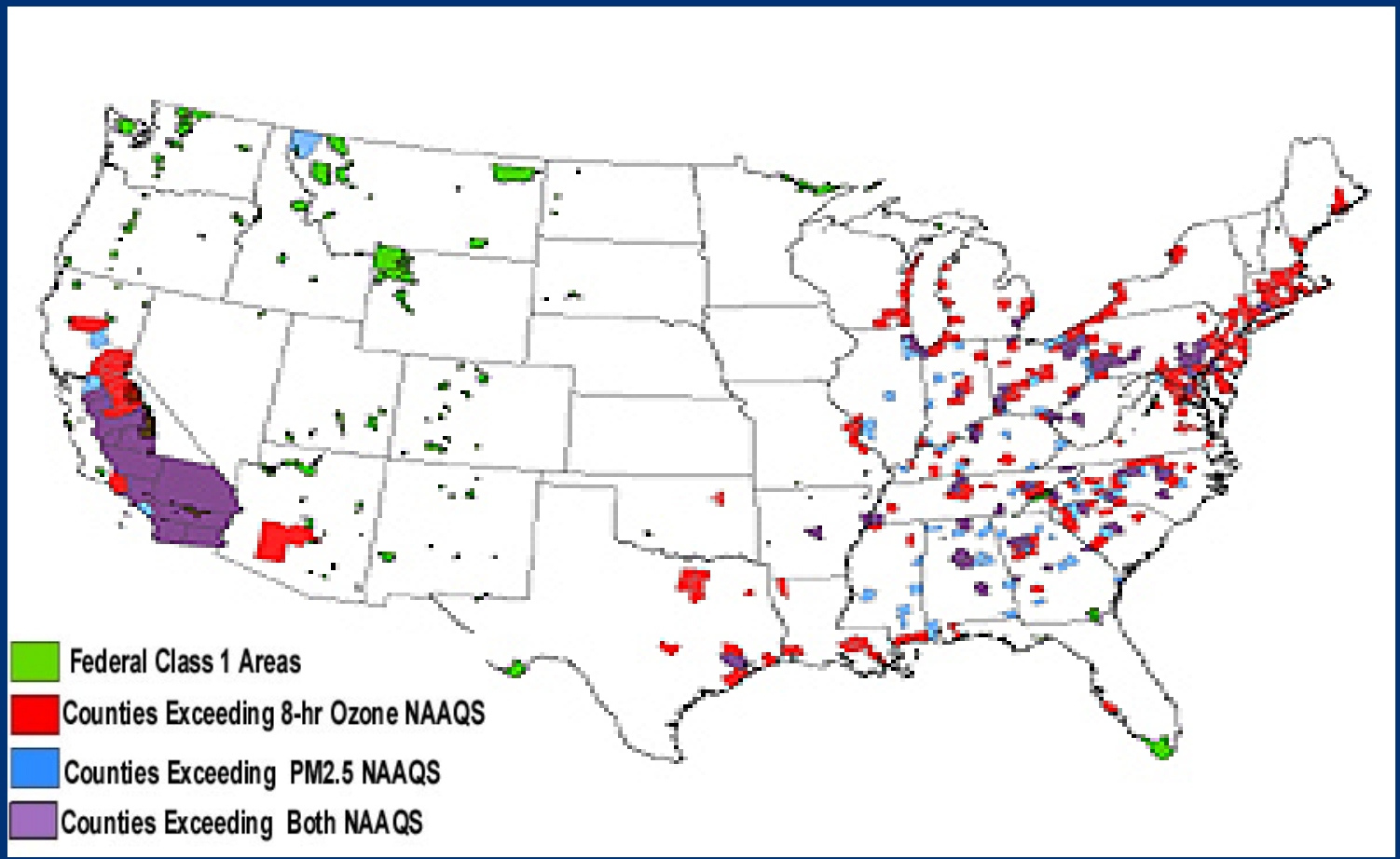
APMT EMISSIONS OBJECTIVES

Reduce Particulate Matter (Smoke)

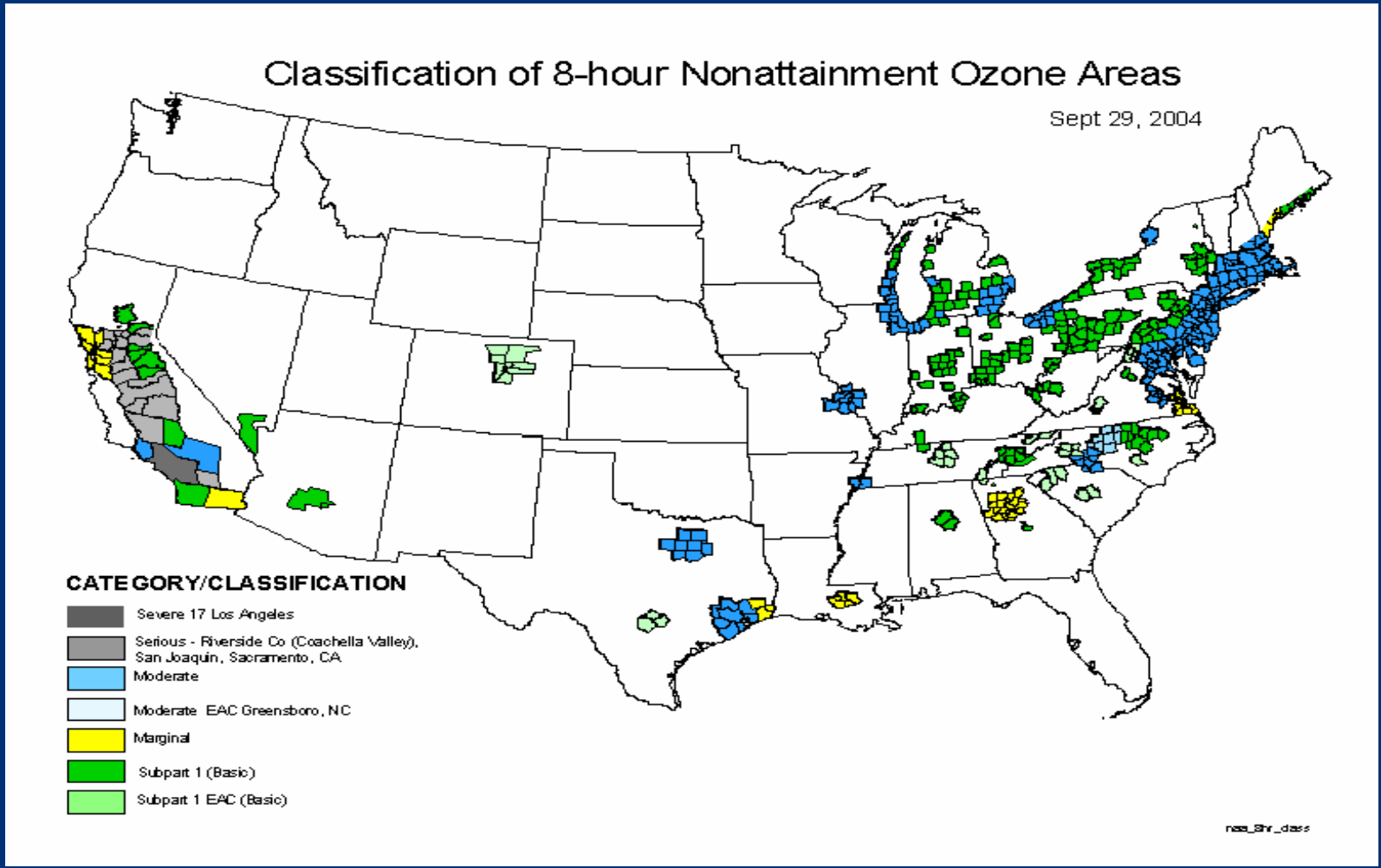
Reduce NOx

Reduce Sulfur

EPA AREAS EXCEEDING STANDARDS



8 Hr Ozone Nonattainment (APMT Operates in 5 Nonattainment Areas)



EPA EMISSION STANDARDS

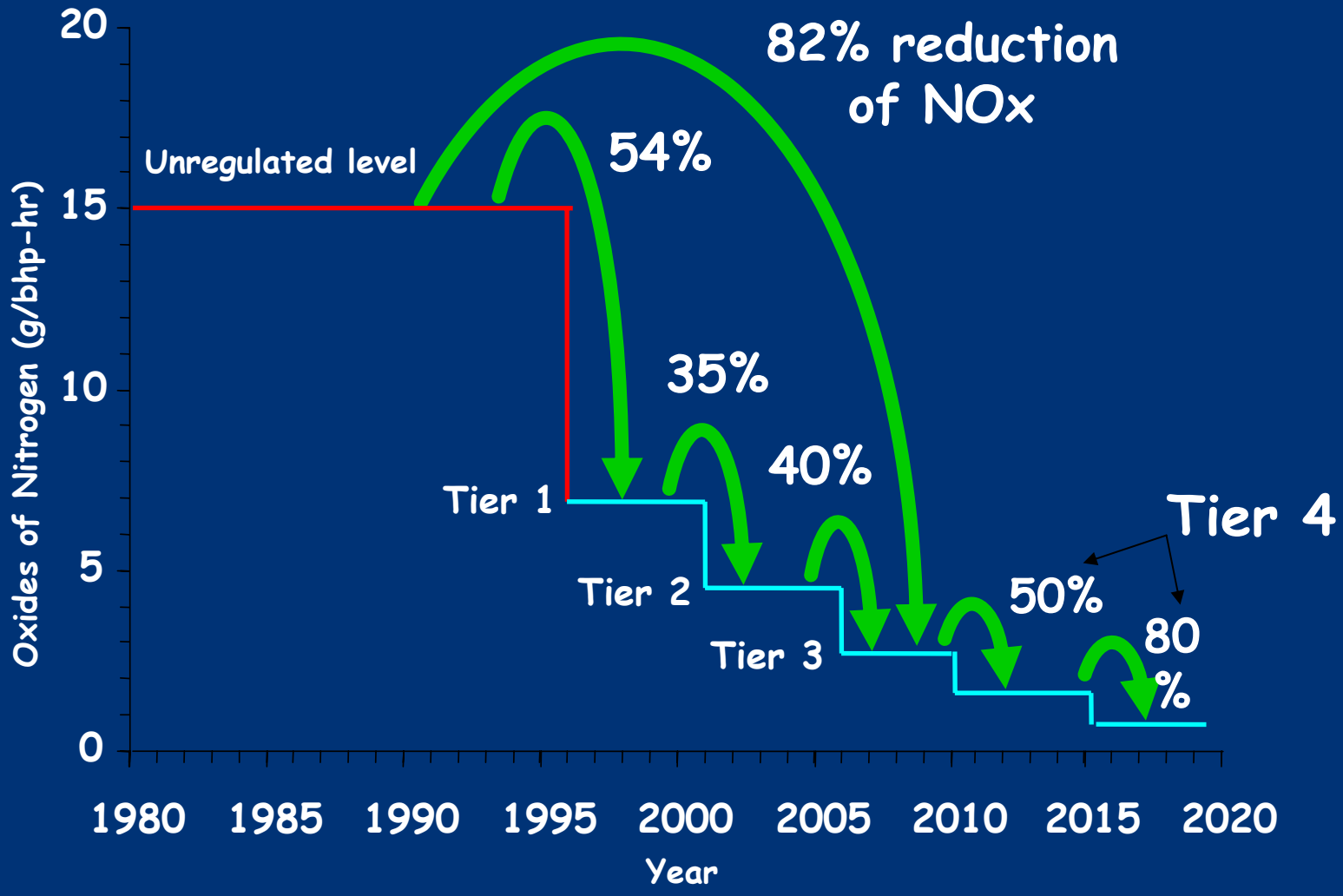
Off Highway Category

- All non Licensed Terminal Power
- Less Stringent than On Highway
- (Represents 90+% of APMT Fleet)

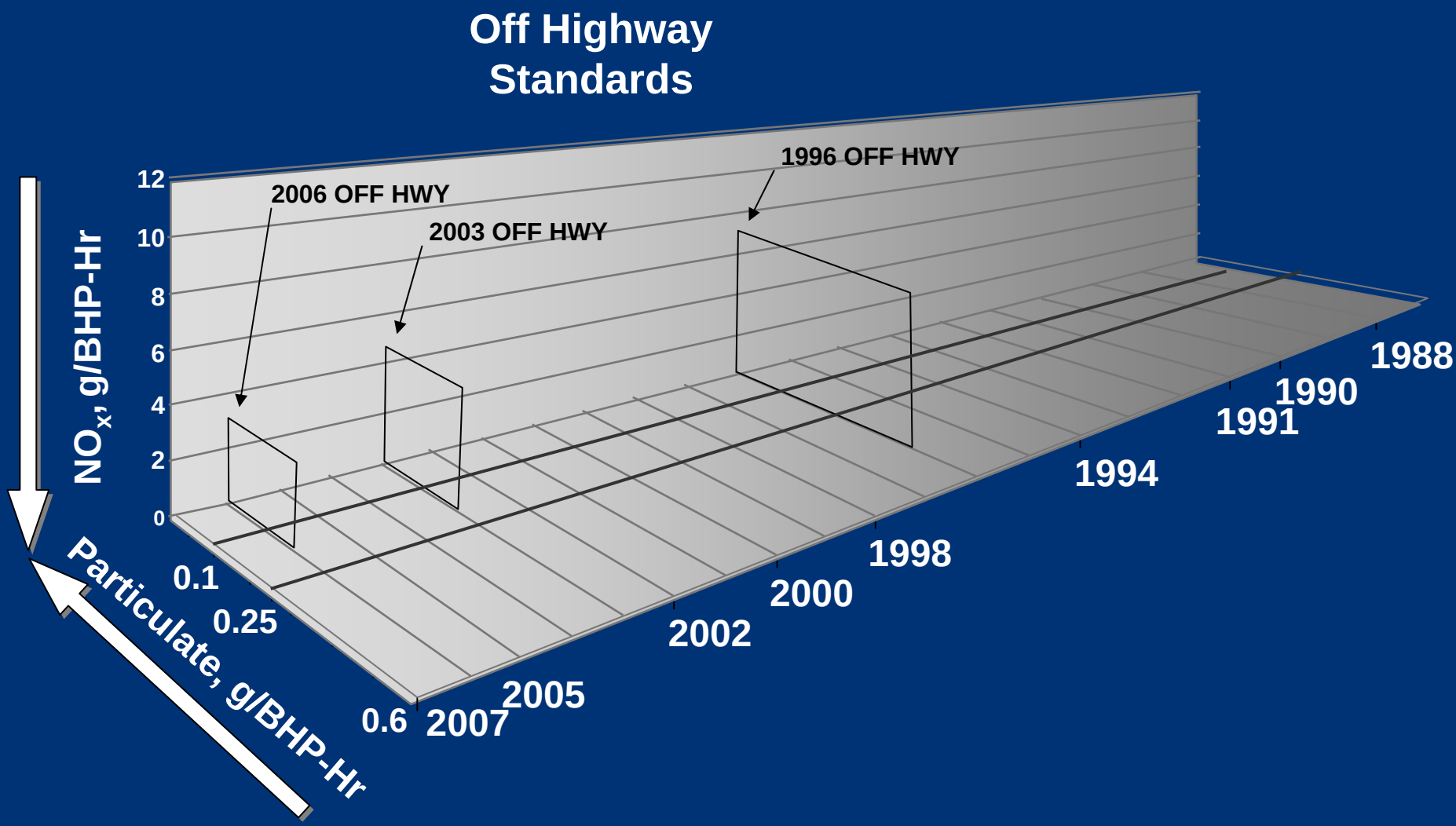
On Highway Category

- Licensed Vehicles; Gas and Diesel
- Approx. 3 years Ahead of Off Highway

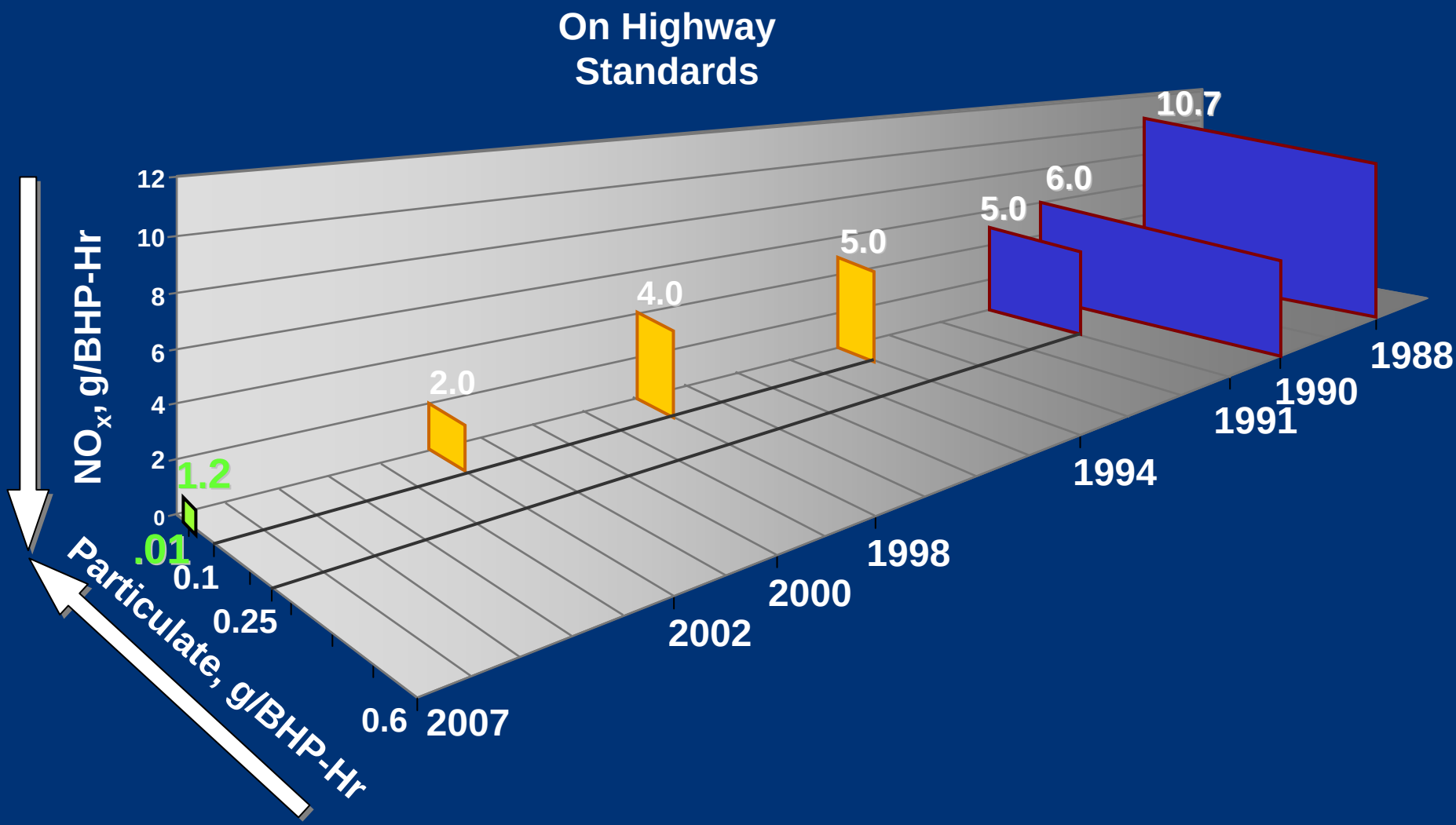
Emission Standards for Mobile Off-Highway



APMT Low Diesel Emissions

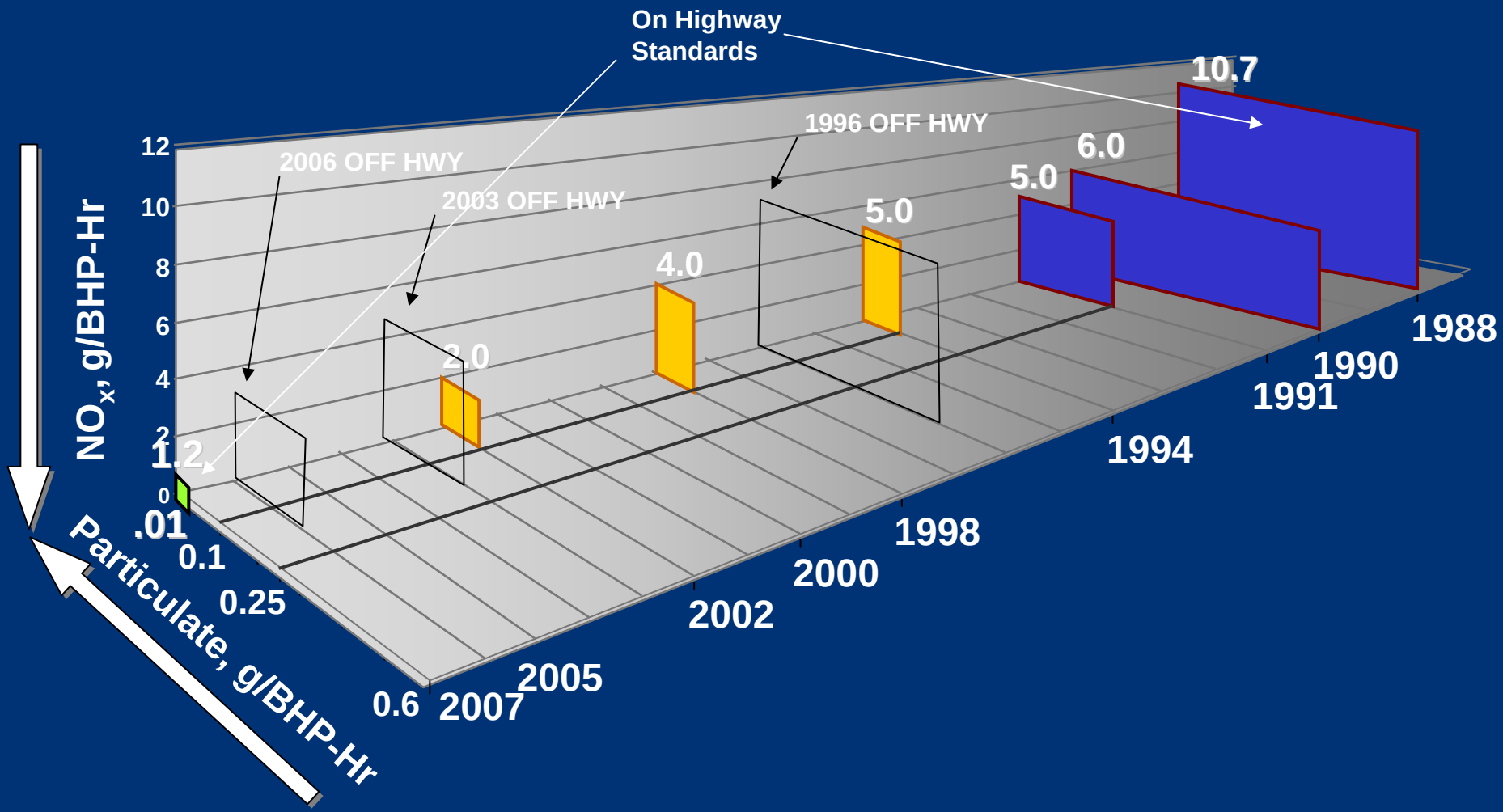


EPA Driving Low Diesel Emissions



APMT Low Diesel Emissions

Combined Standards



APMT IS CONTRIBUTING TO CLEANER AIR

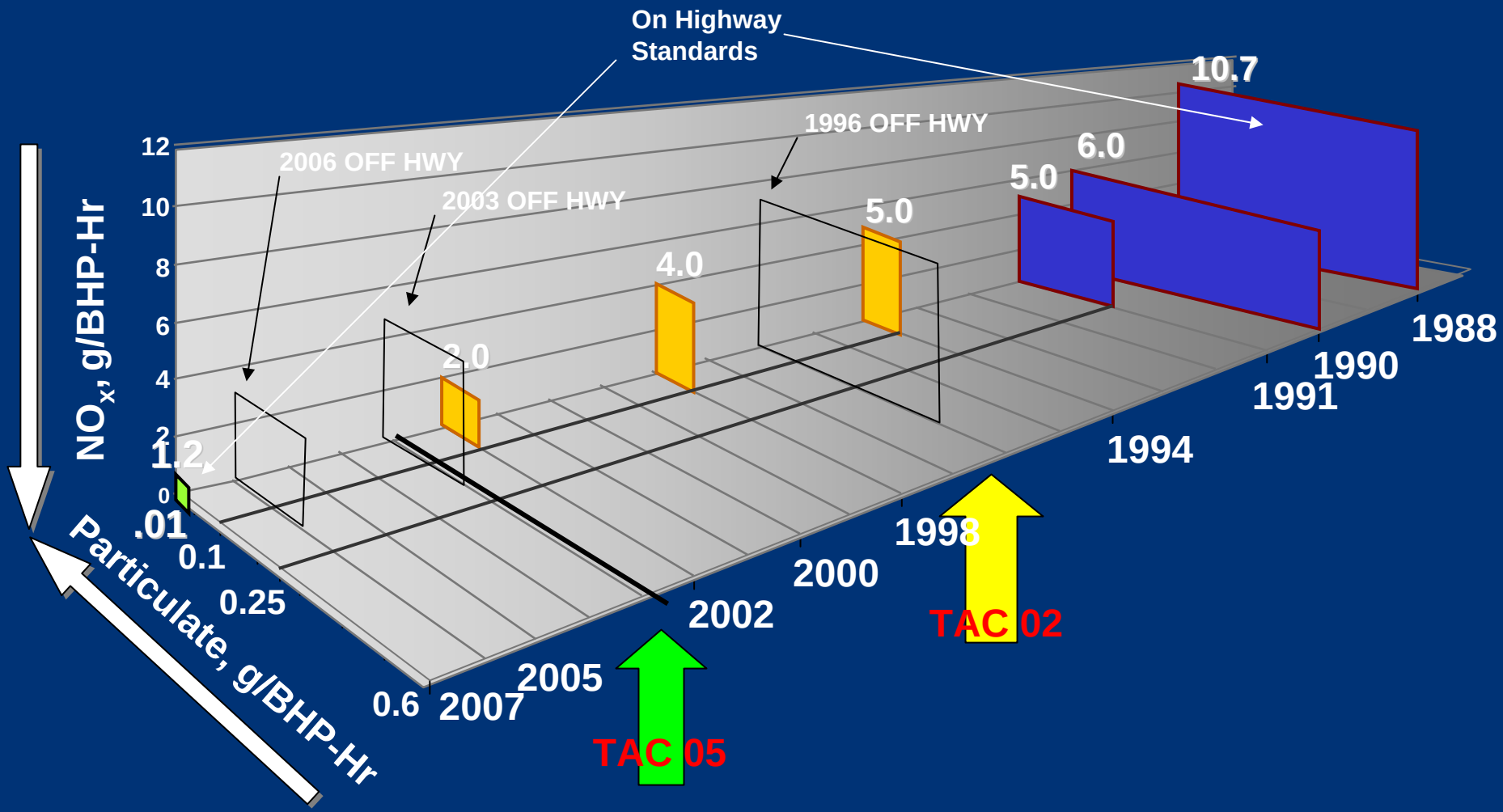
CRITERIA FOR EMISSIONS STRATEGY

- Meets Business Needs
- Supported By Current Infrastructure
- Program With National Application
- Sustainable Long Term
- Integrates With Escalating Standards
- Must Be Safe

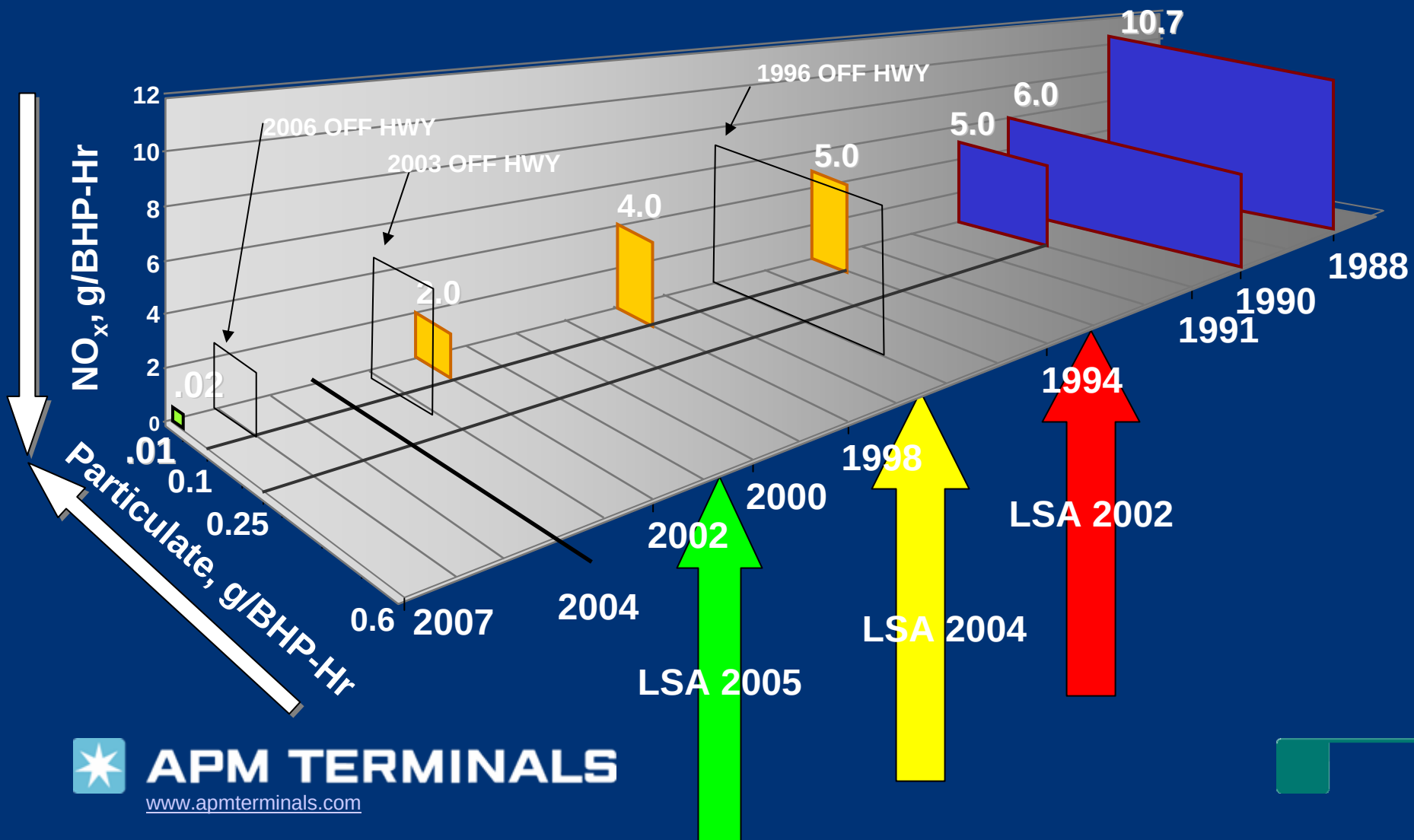
APMT EMISSIONS STRATEGY

- MODERNIZE FLEET
  - NEW TECHNOLOGY MEETS EPA REGS
  - NEW TECHNOLOGY COST EFFECTIVE
  - ELECTRONIC ENGINE SUPPORTS FUTURE TECHNOLOGY
- BUY ON HIGHWAY ENGINES WHEN POSSIBLE
  - Higher EPA Ratings
  - Recommended by NRDC
  - Required Use By CARB 2007
- USE ULSD AS REQUIRED AND AVAILABLE
- INTRODUCE VERIFIED AFTERTREATMENT TECHNOLOGY AS NEEDED
- EFFICIENT FUEL USE
  - IDLE SHUT DOWNS
  - ENGINE PROGRAMMABLE TO APMT DUTY CYCLE
  - INCREASE PRODUCTIVITY – DECREASED OPERATING HOURS
  - FUEL MONITORING SYSTEMS

APMT Tacoma Low Diesel Emissions



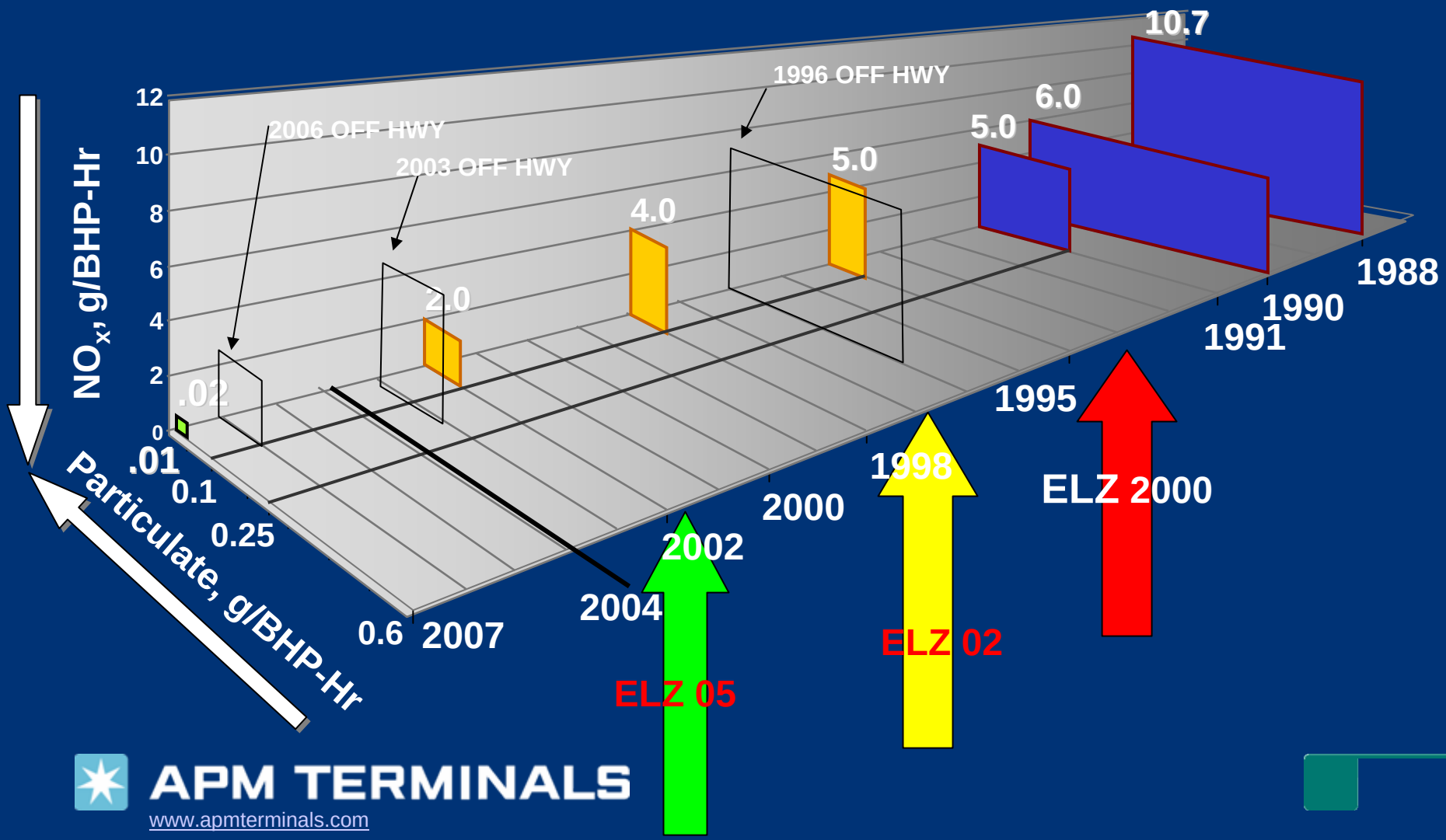
APMT Pier 400 Low Diesel Emissions



APM TERMINALS

www.apmterminals.com

APMT Newark Low Diesel Emissions



APM TERMINALS

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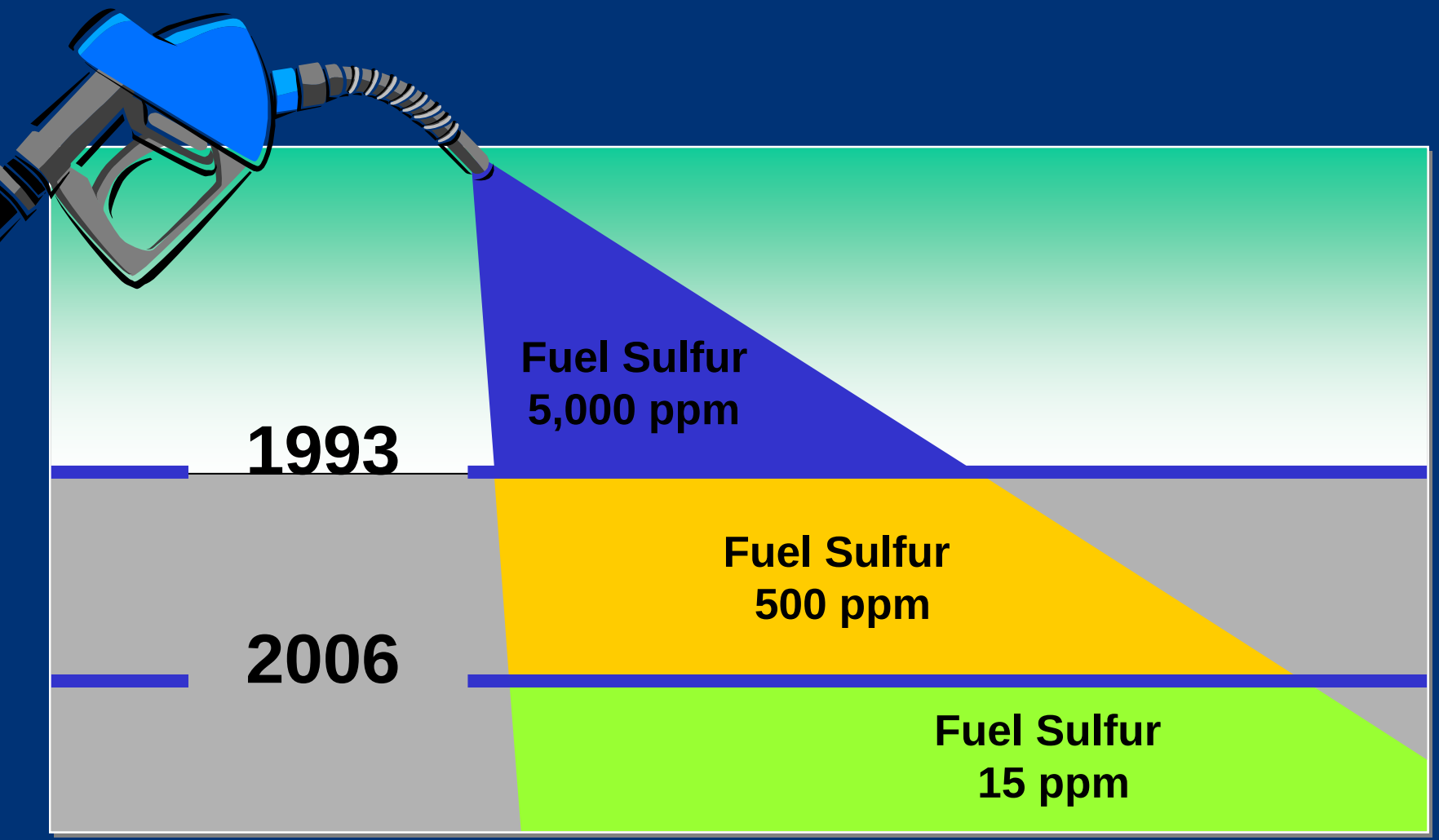
Reducing Diesel Fuel Sulfur



Effect Of Fleet Renewal

- More Efficient Power
- Safer Equipment
- Reduced Emissions
- Reduced Maintenance
- New Engine Design for Escalating Standards

ARE WE MAKING PROGRESS?

Environmental Guidelines
APM Terminals Global

Environmental Protection

"It is Company policy to place high priority on environmental considerations in managing its business"

Jess Søderberg

Chief Executive of A.P. Moller

Emissions Reduction Strategies

APM Terminals Global News Letter

Gate improvements and equipment modernization were two strategies identified as making both business and environmental sense.

Terminal Operators indicated that good corporate citizenship is a top priority for their business operations; therefore, environmental programs are a core part of their business plan.

Technology Verified Through Independent Testing

“The Air Resources Board (ARB), along with the Port of Los Angeles, funded a demonstration program to obtain information on the baseline emissions and promising control strategies for port and intermodal rail yard trucks.

Emission testing was performed on an electronically controlled 2004 off-road certified engine (QSB 5.9L) and an electronically controlled 2004 on-road certified engine (ISB 5.9L) using low-sulfur diesel fuel (<15 ppm sulfur). The modified C1 weighed emissions for the 2004 QSB engine was 0.16 g/wHp-hr, 5.54 g/wHp-hr and 0.14 g/wHp-hr respectively for THC, NOx and PM. The C1 weighed emissions for the 2004 ISB engine was 0.05 g/wHp-hr, 2.45 g/wHp-hr and 0.10 g/wHp-hr respectively for THC, NOx and PM.
Comparisons between the QSB and ISB on low-sulfur diesel show that the ISB has 69 percent lower THC, 56 percent lower NOx levels and 30 percent lower PM. These results indicate that the emission levels for the on-road certified ISB engine are significantly lower than the QSB, when tested under the same off-road modified C1 test cycle.”

Independent Studies
Starcrest Consulting Group, LLC

LOS ANGELES

"This report compares 2002 and 2005 emissions for cargo handling equipment (CHE) at
APM Terminals at the Port of Los Angeles. APM Terminals moved their operations from the Port of Long Beach to the Port of Los Angeles in August 2002. In order to compare emissions between the 2002 baseline year and the present year of 2005, one full year of operation in 2002 and 2005 is used in the emissions estimation. Equipment turnover, emission reduction strategies, including the use of on-road engines on yard tractors, as well as the use of ultra low sulfur diesel (ULSD) on diesel equipment, were taken into consideration for the 2005 emission estimates and will be discussed in the emissions section."

Findings

Table 1 summarizes the total annual 2002 and 2005 emission estimates and the percent reduction in emissions from 2002 to 2005.

Emissions

	NOx (tpy)	HC (tpy)	CO (tpy)	PM (tpy)	SO2 (tpy)
2002	1,600	187	528	111	29
2005	356.3	31.4	110.6	18.0	6.7
Total % Change	**78%**	**83%**	**79%**	**84%**	**77%**

Independent Studies

Starcrest Consulting Group, LLC

LOS ANGELES

Despite a 13% increase in the number of pieces of equipment in the fleet and a 31% increase in cargo throughput from 2002 to 2005, cargo handling equipment emissions decreased:

- 78% for oxides of nitrogen (NOX)
- 83% for hydrocarbon (HC)
- 79% for carbon monoxide (CO)
- 84% for particulate matter (PM)
- 77% for sulfur dioxide (SO2).

The dramatic decrease in emissions can be attributed to the introduction of on-road certified engines in 102 of the 186 yard tractors (55% of the yard tractor fleet) and the use of more refined data concerning cargo handling equipment hours of operation in 2005.

Port Authority Recognition

PANYNJ

“PANYNJ recently updated a Cargo Handling Equipment (CHE) Emissions Inventory Report. The report calculated air emissions generated by five terminal operators at the port during 2004.

This report was compared to a similar 2002 CHE emissions inventory.

Although number of pieces of equipment in the fleet have increased by 19%, operating hours have increased by 5%, and the number of containers have increased by 25%, overall emission estimates for key pollutants in tons per year have decreased overall by more than 30% and more than 45% relative to the increased activity.”

An update to this study is currently being performed (2006).

CONTINUING PROGRESS

- EQUIPMENT MODERNIZATION
- OPERATING EFFICIENCIES
- COMMUNITY INVOLVEMENT
- ENVIRONMENTAL EDUCATION


CLEAN
TERMINAL
GREEN
ENVIRONMENT