



A  Sempra Energy<sup>SM</sup> company

# HOT GAS

CNG Composition and ARB  
Exemptions

by

Steve Anthony

January 19, 2006

# CA ARB Fuel Specification

- **Original intent of ARB spec. in early 1990's was to protect 1<sup>st</sup> generation of heavy-duty CNG engines and ensure low emissions**
- **Now, most if not all heavy-duty engine manufacturers produce CNG engines which can adapt to the available pipeline natural gas**

# CA ARB Fuel Specification

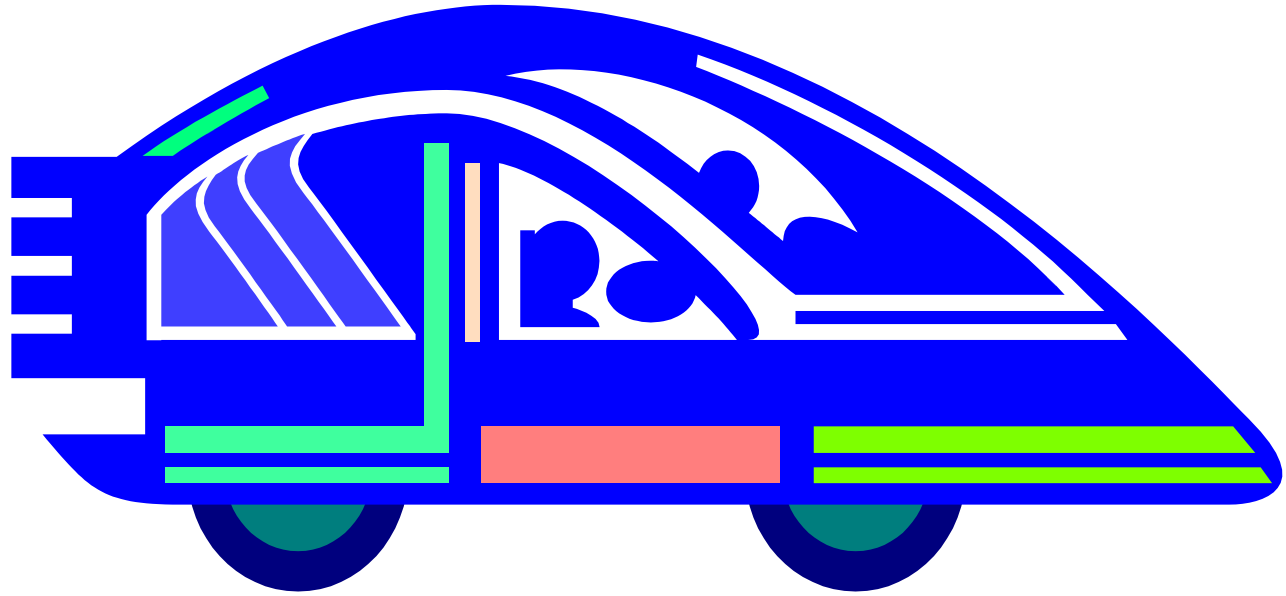
- **Existing spec. defines acceptable gas in terms of component percentages**
  - Methane: 88.0% min
  - Ethane: 6.0% max
  - Propane and heavier gases: 3.5% max
- **Proposed new spec defines gas in terms of Methane Number**
  - MN 80 statewide
  - MN 73 for selected “hot gas” counties including SLO

# **Methane Number**

- **Methane Number is not methane percentage in gas**
- **Methane Number is a calculated number which shows the “knock” resistance of CNG**
- **Methane Number is to CNG as Octane number is to gasoline, but different scale**

# CA ARB Fuel Specification

- **Until CNG spec is revised, new CNG station operators in SLO County must apply for CARB exemption.**
- **3-4 week processing time**
- **SoCalGas service area has over one dozen exemptions since 1997**
- **Exemptions can be renewed every three years**
- **SoCalGas will draft exemption request, with exceptions**



[www.socalgas.com/ngv](http://www.socalgas.com/ngv)

(213) 244-5681