Lead removal and Sulfur reduction in South African fuels

South African Petroleum Industry Association (SAPIA)

Meeting of the Partners for Cleaner Fuels and Vehicles for Cleaner Air – New York- 14 November 2002.

Lead phase out process
South Africa

- Pre 1986 Pb < 0.836g/l petrol
- 1986 > 1989 Pb < 0.6g/l petrol
- Post 1989 Pb < 0.4g/l petrol

- Feb 1996 Introduction of ULP

Approx. 10% ULP penetration for 1st 4 years.

4c/l tax diff. gave insufficient incentive.

Lead phase out process
South Africa (cont.)

Now 30% penetration due to same ULP & LP octane introduced & new vehicles with restricted fillers in main centre (Gauteng).

1 Jan 2006 Complete lead removal.

Still discussing management & specs of lead replacement petrol, optimum octane levels, management of ULP penetration,etc.

Sulfur reduction process
South Africa

- Pre 2002 Diesel S < 5,500ppm (0.55%)
- Post 2002 Diesel S < 3,000ppm (0.3%)
  together with a 500ppm 2nd niche grade.
- Post 2006 Diesel & petrol S < 500ppm
  together with a 50ppm 2nd niche diesel grade.

Post 2006
South Africa

- Current discussions concerning further fuel specification changes post 2006.

- Process managed by Fuels Reformulation Task Team: Depts of Minerals & Energy, Environment, Oil, Auto, Freight & Bus Industries, ENGO's.

Multi-stakeholder activities are key

- ***Partnership-based solution in East Africa:***
  - ***USEPA / UNEP / IPIECA / World Bank***
- ***Lead phase out database with UN? World Bank?***
- ***Lead Resources CD ROM (due Dec '02)***

IPIECA Views on Lead and Sulfur

- *Based on enabling of catalytic devices*
- *All the low-hanging fruit is gone*
- *State ownership – Its different!*
- *Recognize they have competing priorities*
- *Need to encourage governments to recognize Benefits of Lead phase out*
- *Lead and Sulfur – that's enough for now*
- *Don't ask developing countries to do the impossible.*
- *Recognize that UAQM - not emissions is the goal; integrate mobile AND stationary sources into the mix*