IPIECA revised fuel sulphur guidance to PCFV AG

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What does IPIECA do?

IPIECA helps the oil and gas industry improve its environmental and social performance by:

• Developing, sharing and promoting good practices and solutions
• Enhancing and communicating knowledge and understanding
• Engaging members and others in the industry
• Working in partnership with key stakeholders
• Pooling expertise across the range of environmental and social issues

IPIECA is the industry’s principal channel of communication with the United Nations.
Fuel sulphur: strategies and options for enabling clean fuels and vehicles

Guidance document for the oil and gas industry

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2. Sulphur in the natural environment

- This section provides an overview of the sulphur cycle in the natural environment and how it can be impacted by human activities, especially in the developing world where anthropogenic emissions are on the rise.

Figure 2 The biogeochemical sulphur cycle

Figure 4 Anthropogenic SO₂ emissions by region for the period 1850–2005

Source: http://environ.andrew.cmu.edu/m3/s4/cycle/Sulphur.shtml

Source: Smith et al. (2009)
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3. Air quality and mobile source emissions management

- The framework of an integrated air quality management system is addressed in this section, along with a discussion on emissions inventories, the impact of mobile sources, and the importance of a holistic approach that addresses vehicles, fuels and infrastructure together as a system

- Integrated AQ management
- Road transport emissions
- Diesel engine retrofits
- Vehicle inspection and maintenance programmes
4. Sulphur in fuels and vehicle emissions standards

- This section provides an overview of the different vehicle emissions control technologies, and looks at how the efficiency of some of these technologies can be affected by the presence of sulphur in fuels. Details of the regulatory standards for fuels and emissions in various regions around the world are also discussed.
5. Refining desulphurization processes and fuels logistics

- This section presents an overview of sulphur in crude oil, describes the desulphurization processes used in the manufacture of lower-sulphur fuels, and discusses logistics and infrastructure issues related to the delivery of fuels to the market.
6. Strategies for low sulphur fuels

• This section summarizes the various considerations that nations and regions should take into account when developing an effective long-term strategy to reduce the impact of vehicle emissions on air quality. It closes with a summary of topics to be addressed when evaluating options for reducing sulphur in fuels.

• PCFV regulatory toolkit
• Analysis to take into account both economic and social factors
• Characteristics of common policy measures
• Summary box of key topics to be addressed
  − Set air quality policy goals
  − Develop a scientifically based, targeted air quality management framework
  − Utilize a holistic approach to address mobile source emission addressing vehicle/fuel infrastructure as a system
  − Understand evolution of vehicle technologies, relevant emissions standards and associated fuel specifications; especially important in the case of imports
  − Assess fuel supplies and availability