SIGNING OF THE AUTO-OIL PROGRAMME (AOP) PROJECT IN CHINA

Asian Clean Fuels Association is proud to announce the formal signing of the Auto-Oil Programme (AOP) Project Agreement with VECC-SEPA (Vehicles Emission Control Centre-State Environment Protection Agency) on 15th March 2004. The signing ceremony was well attended by many stakeholders, including relevant Chinese government bodies, the oil and auto industry and independents such as Tsinghua University.

ACFA was pleased to have present Mr. Li Xinmin, Director of the Department of Pollution Control of SEPA, who gave his written approval and support to the project. Additionally, ceremony participants were very supportive of the project and provided much needed input with regards to their views and comments. Mr. Li stated that, “it is hoped that the valuable support and cooperation between ACFA and VECC-SEPA will long continue and that questions of cleaner fuels will always be dealt with progressively.”

China is undergoing tremendous economic growth and much of its support infrastructure is struggling to cope with rising population and economic demand. One specific challenge is the rapid rise in vehicle population, which by the year 2020 is expected to rise from 15 million total gasoline cars today to more than 150 million. Cities are finding it increasingly difficult to contain vehicle emissions, and this is causing widespread concern throughout the country.

The Chinese government has been aware of this situation and has been very active to arrest it before it gets out of control. To its credit, China has moved very rapidly from (continued on page 2)
led gasoline to unleaded gasoline, and at present its major cities meet Euro II quality standards. However, China acknowledges that much work still needs to be done to fully address the issue of air quality, with proper implementation that both vehicle and fuel quality standards must meet.

The objective of the AOP Project is to improve Chinese fuel quality (gasoline) to meet enhanced vehicle emission standards (Euro III). This is achieved through a set of initiatives that support the development of new fuel specifications. The initiatives will include strategic recommendations, capacity building/enhancing, information exchanging, training, study tour, etc.

A ‘Taskforce Committee’ is currently being formed and will convene its first meeting sometime in end-May/June 2004. Expected parties involved in the taskforce include ACFA, VECC-SEPA, Department of Environmental Science & Engineering of Tsinghua University, the auto-and-oil industry: China Petroleum and Chemical Industry Association (including SINOPEC, PetroChina, etc), China Association of Automobile Manufacturers, Research Institute of Petroleum Processing (RIPP) of Sinopec, SAE-China, Institute of Highway at Ministry of Communication and other major research institutions who might join the Project.

(continued from page 1)

Q) Dr. Friedrich, would you tell something about yourself and what you do in Europe, to give us a "backdrop" of your expertise and experience?

A) I am a chemist by profession, and I received my doctorate degree for 'The Separation of Isobutene from the C4 cut with Sulfuric Acid'. Currently, I am the head of division of the Umweltbundesamt (the Federal Environmental Agency of Germany) ‘Environment and Transport, Noise’. The division deals with all environment related aspect of transport, including fuel quality, emission standards for all mobile sources, emission factors, noise emissions, land use policy, alternative fuels, sustainable transport and noise emissions of stationary sources and health effects of noise as well. The Umweltbundesamt develops proposals for nearly all emission standards for mobile sources in Europe, including fuels standards.

Q) The development of fuels and emission standards in the European Union (EU) is considered by many people to be critical to improving air quality and the environment. Through your years of experience and involvement in this area, would you please provide a short chronology of the development? What is your opinion with regards to this?

A) The starting point was the introduction of unleaded gasoline and emission standards in Germany beginning in 1983, which led to the first EU directive in this field. Before that, the standards were set by the ECE only. Due to slow progress in the ECE bodies, the EU -- mainly under pressure from Germany -- adopted EU-Directives starting with EURO I.

It was always very important to define standards for vehicles and for fuels at the same date. But it is also clear from the development in Europe that setting emission standards and fuel quality parameters is not enough. If no land use policy and traffic control is used, the reduction of vehicle emissions only is offset by vehicle population growth and the effects of increased congestion.
Q) You have been advising governments in many Asian countries over the past several years on fuels strategy and policy. Would you please recommend an advocacy on this subject for some of the developing countries in Asia?

A) It is clear that for Asian countries a leap-frog strategy is the most appropriate and cost-effective. It is not a good strategy to follow each stage we had in Europe. The technology to meet EU IV standards (or EURO V heavy duty) for vehicles is available worldwide and can be introduced today. Tax incentives used in Germany in the past showed clearly that the cost estimates and availability claims of the car and fuel industry were always wrong. After we introduced tax incentives for Euro IV gasoline vehicles, the market was changed in some months. Also the introduction of incentive for 10 ppm sulfur limits in diesel and gasoline of 1.5 € ct per litre changed the market in a very short time. Further, in the fuel sector a leap-frog strategy is possible and highly commended. It is much cheaper to go directly to 10 ppm than to go step-wise to this level. With modern aftertreatment technology requiring levels of 10 ppm sulfur, it makes sense to go directly to this level.

Q) As you know, most countries in Asia are embracing new and cleaner fuel standards. How do you advise these countries based on your experience in Europe? Could you share some of the success factors and potential pitfalls?

A) It is very important to have a good database of the emission situation and air quality problem. It is also important not only to adopt the EU-Standards but also the whole set of requirements, including durability and On-Board Diagnostics (OBD). As I mentioned earlier, the strategy must include both emission and fuel quality standards simultaneously. Tax incentives (always tax neutral) also have to play a important role in the strategy.

Q) One of the key initiatives in Europe to improve air quality is the Auto-Oil Programme. How does this programme work in practice and how do the various stakeholders contribute to its success? How can such a programme be reasonably applied to Asia?

A) The Auto-Oil Programme gave a lot of insight in the relation of emission control technology and fuel quality on emission level. But due to the dominant role of the car and fuel industry in the programme, it was a political decision necessary to come to good a EU directive. I don’t recommend repeating the EU Auto-Oil programme. With all the resulting relevant data available, there is no need to reinvent the wheel.

Q) From a scientific and economic standpoint, how do you see MTBE being compared to other fuel oxygenates? What are your views on this?

A) Nearly all components of fuels are undesirable to the environment. This is also valid for MTBE. An EU risk assessment came to the conclusion that there is no immediate risk at the present levels of emission but recommended to adopt measures to avoid the release of MTBE to the environment. An EU risk assessment came to the conclusion that there is no immediate risk at the present levels of emission but recommended to adopt measures to avoid the release of MTBE to the environment. Further, the Umweltbundesamt require a life cycle analysis of alternative fuels. It performed an extensive analysis for rapeseed oil methyl ester (RME), and the result is that we don’t recommend the use of RME as replacement of diesel fuel. Before bio-fuels are introduced as a requirement, such a life cycle analysis is highly recommended.
DEVELOPMENTS IN FUELS

MALAYSIA: FUTURE FUEL SPECIFICATIONS TO BE INTRODUCED FROM Q4 2004

Malaysia will likely implement its future gasoline and diesel fuel specifications over two phases, Stage 1 from the end of 2004 and Stage 2 later from 2009, delegates learned at the "2nd Asian Petroleum Technology Symposium" held 28-29 January, 2004 in Bangkok, Thailand.

Most noticeably for gasoline, sulphur limits will be reduced to 500 ppm and 50 ppm respectively in Stage 1 and Stage 2, compared to the current (MS118) limit of 1,000 ppm. Also, benzene limits will be reduced to as low as 1.0 volume % by Stage 2. For diesel, sulphur limits will be reduced to 500 ppm and 50 ppm respectively in Stage 1 and Stage 2, compared to the current (MS123) cap of 3,000 ppm. Other properties remain mostly unchanged.

SINGAPORE: GOVERNMENT ENCOURAGES USE OF ‘GREEN’ VEHICLES BY EXTENDING OWNERSHIP REBATES UNTIL 31 DECEMBER, 2005

Will this FCV be commonplace in Singapore in the near future?

Rebates for ‘green’ vehicles in Singapore will be extended for two more years, beginning 2004 until 31 December, 2005, the Land Transport Authority (LTA) and the National Environment Agency (NEA) recently announced in a joint statement. The rebates, first introduced in January 2001 to encourage the use of electric and hybrid vehicles, were extended to compressed natural gas (CNG) vehicles in 1 October, 2001 and were valid until 31 December, 2003. With the latest announcement, owners of ‘green’ vehicles will continue to enjoy the following rebates:

Electric and Hybrid vehicles
(a) Rebate equivalent to 20% of the car's Open Market Value (OMV), to be used to offset the fees and taxes payable at registration
(b) Road tax rebate of 10% for hybrid cars
(c) Road tax rebate of 20% for electric cars

CNG vehicles
(a) Rebate equivalent to 5% and 20% of the vehicle's OMV for buses and passenger cars (including taxis) respectively, to be used to offset the fees and taxes payable at registration
(b) Road tax rebate of 20%

‘Green’ vehicles in Singapore typically cost an additional 20% or more compared to a similar conventional vehicle. Authorities hope that through the use of rebates, ownership for such environmentally-friendly vehicles will increase. To date, the population of such vehicles in Singapore is still low. Official statistics show at the end of 2002, there were 14 hybrid cars, one CNG taxi, and two CNG buses. An additional eight CNG taxis were introduced March 2003.

Questionnaire for Reader Feedback

ACFA NEWS would like to hear from readers for us to improve future issues. Please take a few minutes to answer the following questions and e-mail your replies to ACFANEWS@acfa.ws. Please state in the subject of the e-mail "Questionnaire"

(1) Regular sections in ACFA NEWS include Expert Talk, Development in Fuels while country-specific topics appear in different issues. Which section(s) in particular appeal to you most? Which aspect(s) least appeal to you?

(2) Would it be useful to have a ‘Reader Opinion’ section or ‘Forum,’ allowing readers to provide feedback?

(3) What other topics of interest would you like ACFA NEWS to feature in the future? Do you have any suggestions to improve ACFA NEWS?

We thank you for your contribution.