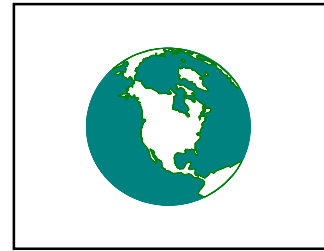


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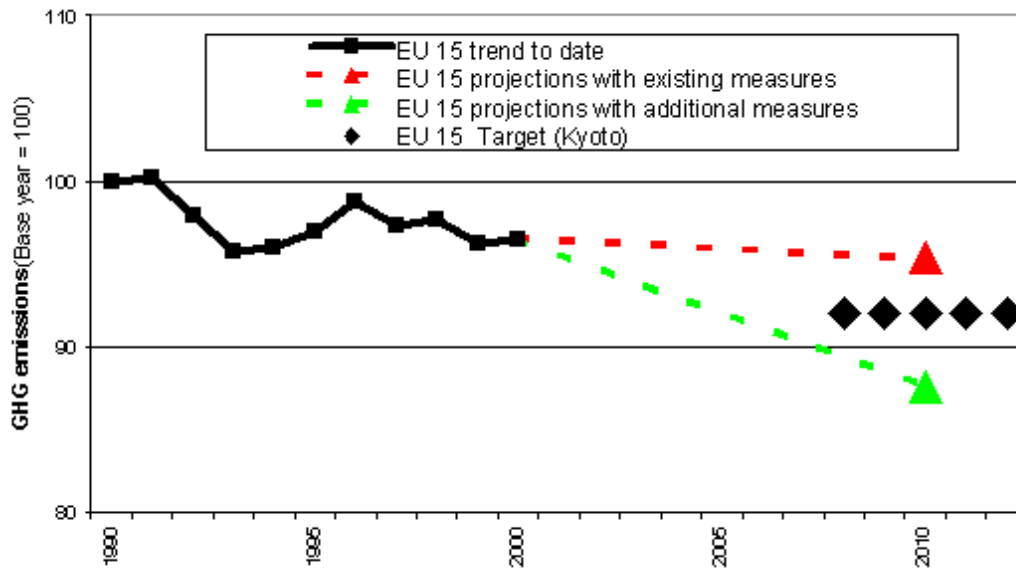
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# CAR LINES

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Issue 2002 - 6

December 2002



## GREENHOUSE GAS EMISSIONS TRENDS IN THE EU

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## EUROPE

### 1. Commission Launches Strategy To Reduce Air Pollution From Ships

The European Commission has just adopted a new strategy to reduce the impact of ship's atmospheric emissions on the environment and human health. The main aim of the strategy is to reduce the impact of emissions from seagoing ships on local air quality and acidification. The strategy will also help support the promotion of shipping as an environmentally friendly mode of transport a key opportunity for the maritime industry in light of recent events. An important part of the strategy is a proposal to reduce the sulphur contents of marine fuels used in the European Union.

Environment Commissioner Margot Wallström said: "The Commission's new strategy to reduce ship emissions gives the maritime industry a timely opportunity to improve its green credentials. The new, stricter limits for sulphur in marine fuels that we are proposing to establish will reduce sulphur dioxide emissions in the EU by over 500,000 tons every year. These reductions will be targeted to deliver the greatest possible benefits - in ports and coastal areas close to where people live, and in acid-sensitive ecosystems in northern Europe. Working together with Member States and industry, we want to create a clean new future for marine transport in the EU."

The Commission's first priority is to reduce ship emissions of sulphur dioxide and particulate matter from ships, which are directly related to the sulphur content of marine fuels. Marine fuel has an average sulphur content of 2.7%, or 27,000 parts per million, compared with petrol for cars, which has

only around 50 parts per million. The Commission is therefore presenting a proposal for a directive to reduce the sulphur content of marine fuels used in the EU. The proposal's main provisions are:

- A 1.5% sulphur limit for marine fuels used by all seagoing vessels in the North Sea, English Channel and Baltic Sea, in line with the International Maritime Organization's (IMO) MARPOL Annex VI sulphur limits, in order to reduce the effect of ship emissions on acidification in Northern Europe and on air quality
- The same 1.5% sulphur limit for marine fuels used by passenger vessels on regular services to or from any port within the EU, in order to improve air quality around ports and coasts, and create sufficient demand to ensure an EU-wide supply of low sulphur fuel
- A 0.2% sulphur limit on fuel used by ships while they are at berth in ports inside the EU, to reduce local emissions of sulphur dioxide and particulate matter, and improve local air quality.

These measures will have significant human health benefits reducing the incidence of asthma, bronchitis and heart failure, particularly in populated port areas. It is estimated that the ship emissions reductions achieved as a result of this proposal would lead to at least 2000 fewer life years lost in the EU through long-term exposure to emissions, 750 fewer deaths from short-term exposure, and 300 fewer hospital admissions for respiratory illness. The measures will also help reduce exceedances of critical loads for acidification, which remain a serious problem in lake and forest ecosystems in northern Europe.

As well as the sulphur proposal, the strategy sets out a number of other important actions including a push for tougher global emissions standards at the International Maritime Organization, the development of new market-based measures to reduce ship emissions beyond regulatory standards, and the creation of a new Clean Marine Award scheme to promote low-emission shipping in the European Union.

Ship emissions contribute to acid rain, ground-level ozone (smog), air pollution, and marine eutrophication in the European Union. They also contribute to the global problems of climate change and ozone depletion.

A recent study for the Commission looked at all shipping journeys starting or finishing in Europe, and estimated the emissions of various pollutants. The results were startling for example, by 2010, emissions of sulphur dioxide (SO<sub>2</sub>) in EU sea areas are likely to equate to 75% of total land-based emissions, including those from all cars, trucks and industrial plants. The picture for nitrogen oxides (NO<sub>x</sub>) is not much better, with ship emissions likely to equal two thirds of land emissions by 2010. The study also found that vessels flagged in countries outside the European Union make 50% of ship movements in EU seas.

The reason that emissions from ships are now so conspicuous is because, to date, the maritime sector has been unregulated - unlike other industrial and transport sectors that are already covered by EU regulations. This also means that ships can now reduce their emissions more cheaply than other sectors where action has already been taken - in other words, it is cheaper to reduce one ton of emissions from shipping than it is to reduce the same ton of emissions from another source.

The strategy proposes to reduce ships' SO<sub>2</sub> emissions through a proposal to require lower sulphur marine fuels to be used in EU seas and ports, as outlined above. To reduce ships' NO<sub>x</sub> emissions, the strategy proposes that the Commission should work with Member States to press for tougher engine standards through the International Maritime Organization. This approach will reduce NO<sub>x</sub> emissions from all the ships entering EU seas not just those flagged in the European Union. In parallel the Commission aims to develop market-based instruments to encourage ship owners to use NO<sub>x</sub> reduction technologies in EU seas. The strategy also sets out actions to reduce ships' emissions of greenhouse gases and ozone-depleting substances.

## **2. New Apehis Health Assessment Shows That Air Pollution Continues To Threaten Public Health in Europe**

The Apehis program, funded by the EC's Health and Consumer Protection DG, has released the findings of a health impact assessment (HIA) of particulate air pollution it conducted in 26 cities in 12 European countries during 2001. The Apehis (Air Pollution and Health: A European Information System) study revealed in particular that air pollution continues to pose a significant threat to public health in urban environments in Europe despite tighter emission standards, closer monitoring of air pollution and decreasing levels of certain types of air pollutants.

As part of Apehis' objective to bridge the gap between research findings and decision-making, this new report, which uses the same standardized methodology in all its cities, constitutes the first HIA conducted simultaneously

on both local and European levels.

Apheis is a collaborative undertaking of the EC's Joint Research Center in Ispra, WHO's European Center for Environment and Health in Bonn, and the many environment and public health organizations and institutions that participate in the program in Apheis' 26 cities.

Small reductions in air pollution levels can have a large impact on public health. Most European cities daily measure particulate air pollution (or very small particles) using one of two techniques: PM10 (particles less than 10 micrometers in size); or black smoke (black particles less than roughly 4 micrometers in size). Levels of air pollution are reported in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), a unit that defines the amount of particles in a given volume of air.

Levels of particulate air pollution, including PM10 and black smoke, vary widely across Europe. The annual average levels in Apheis cities range from 14 to 73  $\mu\text{g}/\text{m}^3$  for PM10 and from 8 to 66  $\mu\text{g}/\text{m}^3$  for black smoke. The Apheis report demonstrates that reducing these levels, even by a small amount, could produce significant benefits to public health.

In specific, the report observes that 2 653 premature deaths (or 9 premature deaths per 100 000 inhabitants) could be prevented annually if long-term exposure to annual mean values of PM10 were reduced to 40  $\mu\text{g}/\text{m}^3$  in the 19 cities that measured PM10 particles and whose populations total nearly 32 million inhabitants. This level of 40  $\mu\text{g}/\text{m}^3$  is the limit value set by the European Commission for all member states by 2005.

If the more ambitious limit value of 20  $\mu\text{g}/\text{m}^3$  set for 2010 is achieved in the

same cities, 11 855 premature deaths (or 43 premature deaths per 100 000 inhabitants) could be prevented annually.

Even more significantly, the report shows that reducing long-term exposure to outdoor concentrations of PM10 by just 5  $\mu\text{g}/\text{m}^3$  would prevent 5 547 premature deaths annually (or 19 premature deaths per 100 000 inhabitants) in all the cities, including those with the lowest pollution levels. For comparison, that is almost four times the annual death rate from Aids in the countries Apheis investigated, 2.6 times the leukemia rate, and 1.5 times the annual rate of traffic fatalities.

Concerning black smoke, according to a Dutch cohort study recently published, the effects of long-term exposure to this pollutant on mortality rates should be similar to the effects of PM10. However, since no exposure-response functions were available for the chronic, long-term effects of exposure to black smoke when the Apheis study was conducted, this second part of the HIA was limited to acute, short-term effects, and thus addressed only a small fraction of the total, long-term impact of black smoke.

Conducted in the 15 cities that measured black-smoke particles and whose populations total almost 25 million inhabitants, this second part determined that nearly 577 premature deaths (or 3 premature deaths per 100 000 inhabitants) could be prevented annually if short-term exposure to outdoor concentrations of black smoke were reduced by 5  $\mu\text{g}/\text{m}^3$ .

As another key point, the Apheis report, entitled "A Health Impact Assessment of Air Pollution in 26 European Cities," states that the major reason air-pollution exposure results in important health impacts is the ubiquity of the exposure, over which individuals have little control.

This contrasts with other health-risk factors, such as cigarette smoking and diet, which individuals can better control.

The report embraces data from 12 countries totaling 26 cities: Athens, Barcelona, Bilbao, Bordeaux, Bucharest, Budapest, Celje, Cracow, Dublin, Gothenburg, Le Havre, Lille, Ljubljana, London, Lyon, Madrid, Marseille, Paris, Rome, Rouen, Seville, Stockholm, Strasbourg, Tel Aviv, Toulouse and Valencia.

### **3. Greece Has Highest Particulate Levels In European Union**

A survey of 19 European cities carried out by the European Aerosol Research Lidar Network to Establish an Aerosol Climatology (EARLINET) found Athens and the Greek northern port city of Thessaloniki to have the highest concentrations of airborne particles. The study, which began in February 2000 on behalf of the European Union, is intended to establish a comprehensive climatological database on suspended particles and variability of aerosols over Europe. Levels of airborne particles were measured in the German cities of Hamburg, Kuhlungsborn, Garmisch-Partenkirchen, Leipzig, Potsdam, and Munich; the Greek cities of Thessaloniki and Athens; Lausanne and Neuchatel, Switzerland; Minsk, Belarus; Barcelona, Spain; Linkoping, Sweden; the Italian cities of Naples and Potenza; Paris; Lisbon; and Aberystwyth, in the United Kingdom.

The Greek government, for its part, said it plans to implement by 2005 a series of measures for curbing industrial and transport emissions via stricter emissions limits and financial incentives for upgrading home heating units and lower-polluting automobile engines.

### **4. 2002 Summer Ozone Levels Increased By 15 Percent From 2001, EEA Report Says**

The percentage of summer days in Europe during which ozone concentrations exceeded unhealthy levels defined by the European Union increased 15 percent in 2002 compared with 2001, a European Environment Agency study reported. In its annual report of summer ozone levels, the EEA reported that exceedances occurred on about 75 percent of days between April 1 and Aug. 31. The EEA reported such exceedances occurred on about 65 percent of days during the same period in 2001.

Under a European Union directive, governments must inform the public whenever monitoring stations detect ozone concentrations above a critical threshold, set at 180 micrograms of ozone per cubic meter of air (180 µg/m<sup>3</sup>) averaged over one hour. Over the April-August 2002 period this threshold was exceeded in 11 of the 15 EU Member States and in six out of 12 other European countries that supplied data, a preliminary evaluation shows. An exceedance occurred in one or more of these 27 countries on 120 of the 153 days covered. June and July saw the highest numbers of exceedances.

The public information threshold was breached in France, Greece, Italy and Spain over all five months monitored. Total exceedances were highest in southern France, Italy's Po Valley and central Italy. Austria, Germany and Switzerland saw exceedances in four consecutive months while the Netherlands and the Czech Republic recorded exceedances in three consecutive months.

Greece reported the highest number of

days with exceedances – 68 – followed by France (56), Italy (52) and Spain (48). However, these totals do not necessarily provide a fair comparison since the number of monitoring stations differs widely from country to country. Switzerland and Greece had the highest proportion of stations reporting exceedances, at 77% and 70% respectively.

The 10 countries that recorded no exceedances of the public information threshold were Bulgaria, Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Norway, Romania and Sweden. For Ireland and Finland, 2002 marks the sixth consecutive year without exceedances.

Public authorities are also required to issue public health warnings if ozone concentrations rise above a level of 360 µg/m<sup>3</sup>, averaged over one hour. In June 2002 this level was exceeded at three monitoring stations in Spain and at one in France and Italy, respectively. The highest concentration recorded this summer was 391 µg/m<sup>3</sup>, at Puertollano in Spain on 22 June. In 2001 the highest concentration was 470 µg/m<sup>3</sup>, reported at a Spanish station last November.

A new ozone directive taking effect next year will, among other things, introduce an “alert” threshold at 240 µg/m<sup>3</sup>. Around seven per cent of this year’s exceedances of the public information threshold exceeded the future alert threshold. When the alert threshold is exceeded governments will have to set in train action plans aimed at achieving an immediate reduction of ozone pollution, where feasible.

The average of the maximum concentration recorded during this year’s exceedances of the public information threshold is slightly higher than in 2001 but the average duration of exceedances is lower. Such year-to-

year variations largely reflect the quality of summer weather and changes in the extent of the monitoring network.

The EU directive on air pollution by ozone, Directive 92/72/EEC, was adopted in 1992 and entered into force in March 1994. It establishes procedures for harmonizing monitoring of ozone concentrations, exchange of information, communication with and alerting of the population regarding ozone levels and optimizing action to reduce ozone formation. It will be replaced from 9 September 2003 by a new directive on ozone in ambient air, 2002/3/EC, which includes an “alert threshold” of 240 µg/m<sup>3</sup>.

Besides the 15 EU Member States, the countries that provided information for this year’s report were Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Norway, Poland, Romania, Slovakia, Slovenia and Switzerland. A total of 1718 monitoring stations across these 27 countries are assumed to have been operational during the summer 2002 season. About 33% of the stations reported one or more exceedances of the public information threshold.

#### **5. Macedonian Freight Traffic Cleared by EU Parliament To Drive In Austria**

The European Parliament Oct. 22 approved an agreement between the European Union and Macedonia designed to limit the environmental impact of road freight transiting Austrian territory. The Parliament approved the agreement on a show of hands without discussion, on a recommendation from the Parliament’s Transport Committee. The vote clears the way for signature of the accord by the Council of Ministers on behalf of the 15 EU governments. The agreement allows Macedonian freight traffic access to Austrian

highways under the terms of Austria's "eco-points" system, which encourages use of low-emission trucks.

Austrian transit routes through environmentally sensitive Alpine regions carry heavy traffic between northern Europe and the Mediterranean--and, increasingly, trade with Eastern Europe. Special protection was demanded by Austria when the country joined the EU in 1995. Under the eco-points system, cleaner trucks require fewer points for each transit journey, enabling companies to make more trips. Roadside detectors "read" an electronic truck identification device installed in the truck cab. The detectors relay data, including the truck's certified emissions performance, to a central monitoring point in Vienna. Year-on-year, points allocated to other states are reduced. Austria's aim when the scheme became operational in 1998 was to reduce transit-related pollutants by 60 percent over 12 years.

#### **6. EU Deal Reached On Low-Sulphur Fuel**

Governments and MEPs have concluded conciliation talks to settle the final form of the new EU directive to cut sulphur in road fuels. The deal was reached at a conciliation committee meeting in Brussels and still needs a formal approval from the plenary bodies of both institutions.

The main thrust of the directive had already been settled before the conciliation. The new law will make petrol and diesel with a sulphur content of no more than 10 parts per million (ppm) mandatory throughout the EU from January 2009. The current limits are 150 ppm for petrol and 350 ppm for diesel, set to fall to 50 ppm for both fuels in 2005 under a 1998 directive. Under the new law, from 2005 member states

will also have to supply low-sulphur fuel at enough locations to allow the circulation of new low-emission engines requiring the cleaner fuel.

The new fuels directive will also cover off-road machinery in addition to road vehicles, from 2009 (subject to review). This is something Parliament's Finnish Green Rapporteur, Heidi HAUTALA, fought for from the beginning, pointing out that although these vehicles only account for 8.5 per cent of diesel consumption in the EU they have a major impact on health and the environment. The compromise was that those countries that allow the use of gas (or heating) oil in non-road engines "shall ensure that gas oils intended for use by non-road mobile machinery and agricultural and forestry tractors marketed within their territory contain less than 2000 mg/kg of sulphur. By 1 January 2008 at the latest the maximum permissible sulphur content of gas oils intended for use by non-road mobile machinery and agricultural and forestry tractors shall be 1000 mg/kg. However, Member States may require a lower limit or the same sulphur content for diesel fuels stipulated in this Directive".

The Commission is required, in considering its proposal for the next stage of emission standards in non-road applications, to establish the required fuel quality. Taking into account environmental and health benefits, fuel distribution, costs and benefits they are expected to then align fuel quality for non-road applications with the on-road sector by 1 January 2009. This is to be confirmed or amended by the Commission in a 2005 review.

Another outcome of the conciliation negotiations is the inclusion of a reference to promoting and encouraging fiscal measures "at the appropriate national or Community level" as incentives to introduce cleaner fuels.



The "joint text" agreed by the Conciliation Committee now has to pass its third reading by Parliament and Council before it is formally adopted. Parliament's third reading is scheduled for early in the New Year.

### **7. States Miss EU Air Pollution Laws Deadline**

The legal deadline for EU member states to transpose two major European air pollution directives into national law has passed with just one government having met its obligations for only one of the laws. The national emission ceilings (NECs) directive and the large combustion plants (LCPs) directive were both agreed in 2001. France has passed and notified transposing legislation for the LCPs directive, according to the European Commission; other notifications might be being processed.

The NECs directive sets ambitious 2010 targets for national releases of sulphur dioxide, nitrogen oxides, ammonia and volatile organic compounds. Implementation of the LCPs directive should help achieve these targets through stricter emission limits on power stations and large industrial boilers.

Formal compliance by EU states with both directives was due by 27 November. In the case of NECs, governments should already by 20 October have drawn up national programs aimed at achieving the aims of the legislation, to be copied to the European Commission by 31 December. Under the LCPs directive, any power station licensed from now on is immediately subject to stricter rules, whereas facilities licensed before 27 November will not be affected until 1 January 2008.

Several member states have at least

begun preparing detailed plans to implement the two directives. Among them, Finland issued draft proposals last month. Britain has also released a series of consultation papers.

### **8. Pressure Builds To Cut German Diesel Emissions**

All diesel cars sold in Germany should be fitted with particle filters for health reasons, according to a broad coalition of environmental and health NGOs. Led by Deutsche Umwelthilfe (DUH), they have called on the government to support their "no diesel without filter" initiative, launched on Monday, by providing tax incentives for cars fitted with filters. The coalition wants existing tax incentives of up to €614 for diesel cars already meeting Euro IV emissions standards - well ahead of the 2005 deadline - to be extended to cars meeting Euro III, if they are fitted with filters. The rationale is that the existing tax incentive was set as large as it is in anticipation of filters being required to comply with Euro IV standards and that it is inappropriate to have this high incentive for vehicles that are not so equipped.

The government has undertaken to lobby the EU for more stringent diesel car and truck emissions standards, which would require diesel filters. Only Peugeot's large and medium-sized cars in the German market are supplied with filters fitted as standard.

National car industry association the VDA has rejected the initiative in a statement. The German car industry regards reducing all emissions through improved engine technology as a "more intelligent" solution than exhaust gas after-treatment with filters, said the VDA. A representative from UBA predicted the tax scheme would be corrected by mid 2003 at the latest.

### **9. Danish Study Sees Benefits From Diesel Filters**

Denmark's environmental assessment institute (IMV) has calculated that fitting particle filters to diesel engines would yield a "maximum possible gain" of DKr83bn (€11.2bn) over the next 15 years. Unlike previous cost-benefit analyses that have tended to focus on heavy vehicles (over 3.5 tons), vans and taxis were included in this study because of their prevalence in urban areas according to IMV. The costs of fitting the filters – estimated at DKr40,000 for heavy vehicles and 15,000 for the others - are expected to fall to 12,000 and 8,000 respectively as production increases.

The study takes into account the public health impact of filtering out ultrafine as well as fine particles, with calculations being made "partly on the basis of pure cost and partly on "willingness to pay".

### **10. Prospects Improve For EU Kyoto Compliance**

New projections of greenhouse gas emissions to 2010 suggest the EU is more likely than previously thought to approach or even exceed its UN Kyoto protocol commitment to cut releases. But the study also underlines potentially destabilizing national and sectoral variations in emission trends. Under the Kyoto protocol the EU is required to cut greenhouse gas emissions by 8% between 1990 and the average of 2008-12. A study issued by the European environment agency (EEA) suggests that with existing domestic policies and measures the bloc will achieve 4.7%. If additional measures are introduced the cut could be 12.4%.

The EEA's key message was that the

EU must take further actions to reach its Kyoto target. However, the projections are rosier than previous official estimates. In addition, the bloc could still meet its legal obligations regarding the 8% cut even if its own emissions reductions fall short of this, by counting carbon sinks and making use of the Kyoto protocol's flexible mechanisms (emission trading, joint implementation and the clean development mechanism).

Earlier European Commission projections of 2010 emissions were significantly worse than the EEA's new figures. In 2000 the EU executive forecast -1.4% based on measures alone and counting just the main three gases controlled under the Kyoto protocol. With extra measures, it said, 7% could be achieved. Last year it was even more pessimistic. For all six Kyoto gases and with existing measures it projected only stabilization at 1990 levels by 2010, or -5% with extra measures.

The EEA's qualifies its projections by pointing to several causes for continuing concern, starting with disparities between national estimates and EU-wide analyses. Regarding energy-related carbon dioxide (CO<sub>2</sub>) emissions, which account for 80% of all greenhouse gas emissions, it warns that while aggregated national projections suggest a 2% cut by 2010 a preliminary EU-wide study suggests an increase of 4%. Furthermore the aggregate projections hide huge variations between gases, countries and economic sectors. As a result the EU is relying, possibly to a dangerous extent, on over-achievement of goals in some areas in order to cancel out poor performance in others.

The leaders include Germany, Sweden and the UK, all projected to exceed their allotted emission reductions under the

EU burden sharing agreement. Emissions from energy supply and use, excluding transport, are projected to be as much as 20% below 1990 levels by 2010. Emissions from waste should decline by 60%.

On the other hand, even assuming extra measures are taken Austria, Belgium, Denmark, the Netherlands and Spain are expected to exceed the burden sharing targets.

Transport is the fastest-growing source of EU GHG emissions, largely because of rapid increases in road transport of both passengers and freight. While most sectors in the EU cut their GHG emissions between 1990 and 2000, those from transport rose by nearly 20%. Based on existing measures, this increase is projected to reach 28% by 2010.

### **11. Ireland Confirms Plan For National Carbon Tax**

Irish finance minister Charlie McCreevy promised to introduce a carbon tax from the end of 2004 in his annual budget statement. The government is under pressure to do more to cut greenhouse gas emissions, which are rising rapidly.

An Irish carbon tax has been on the cards since 2000 when it was included in a national climate strategy, for introduction in 2002. Whereas the climate strategy promised greenhouse gas taxation prioritizing carbon dioxide, the government is now promising what it called a "carbon energy tax".

Other environmental elements in the budget were a €0.03 per liter increase in mineral oil tax on diesel road fuel and higher vehicle registration tax on cars with engine capacity over 1,901cc. An existing 50% registration tax refund on hybrid vehicles was extended for two

years to the end of 2004.

### **12. Netherlands Issues Report Regarding Health Risks of Ambient PM**

Particulate Matter (PM) in the ambient air can lead to health effects and even to premature mortality. This result has been found in a score of epidemiological studies, but its cause is not yet clear. It is certain, however, that these effects are so serious and so extensive that further action is warranted. In the scientific literature ambient aerosols are known as PM, short for Particulate Matter.

Depending on the diameter or size of the particles, they are termed PM10 (for particles with diameters of up to approximately 10 micrometers) or PM2.5 (for those less than 2.5 micrometers in diameter).

On the basis of epidemiological studies it has been estimated that in the Netherlands some 1,700 to 3,000 people per year die prematurely as a result of inhaling ambient PM. These figures reflect only the effects of acute exposure to air pollution. If the long-term effects of chronic exposure are taken into account, premature mortality could affect 10,000-15,000 people a year in the Netherlands. These last estimates for chronic exposure are more uncertain, because chronic effect studies are much fewer in number.

It is recommended that PM10 be retained as a standard for the time being, as it covers the effects of both fine and coarse particles. In view of the emerging evidence implicating fine particles in health effects, it is recommended that a standard for fine PM and/or a source-related fraction be developed as well. Even with PM concentrations well below European

Union (EU) standards, people's health will still be affected because no threshold has been found for the occurrence of health effects.

PM abatement can be justified by the precautionary principle. Source-oriented actions could focus on reduction of the total PM10 aerosol mass or, first of all, on those PM fractions that are expected to be more health-relevant. This last option is preferred. These fractions are probably transport-related (diesel soot) and, more generally, combustion-related primary PM emissions. Abatement should therefore focus on these sources. In this respect, the abatement of uncontrolled shipping emissions has been identified as one of the more cost-effective control options. Abatement of other combustion sources such as industrial combustion, wood burning in fireplaces, and off-road machinery are also possible, but less cost-effective.

The European Union has decided on two standards for PM, a daily and an annual average value. Compliance with the annual average EU standard seems feasible for PM10 in the Netherlands in 2005, although local exceedances at 'hot spots' cannot be ruled out. Compliance in 2010 with the indicative annual average EU standard of 20 ug/m<sup>3</sup> is not feasible, even at high cost. Expectations are that there will still be 36-40 exceedances per year of the EU daily standard of 50 ug/m<sup>3</sup> even after all planned abatement measures have been taken in 2010. Therefore, compliance with the current EU daily standards for 2005 and 2010 does not seem feasible in the Netherlands and adverse health effects will continue to occur.

### **13. Car Makers Warned Over Pace Of CO<sub>2</sub> Cuts**

The European Commission has

published its third annual report on the effectiveness of the Community strategy to reduce CO<sub>2</sub> emissions from passenger cars. The strategy aims at achieving an average CO<sub>2</sub> emission figure for new passenger cars of 120g CO<sub>2</sub>/km by 2005, or by 2010 at the latest. The report concludes that the strategy has so far resulted in a 10% reduction of CO<sub>2</sub> emissions from new passenger cars sold on the EU market since 1995. The main element of the strategy is the commitment from the European, Japanese and Korean car industries to reduce CO<sub>2</sub> emissions from new passenger cars. While welcoming the result, the Commission stresses that additional efforts are necessary to meet the final target.

Commenting on the new report, Environment Commissioner Margot Wallström said: "Our agreements with the car manufacturers are showing results. They make an important contribution to our overall efforts to combat climate change. We will start discussions with the industry next year on how to further reduce emissions from passenger cars. The growth in CO<sub>2</sub> emissions from transport remains one of the big challenges for our climate objectives."

This third report on the implementation of the strategy shows the following results:

In the last year all associations reduced the average specific CO<sub>2</sub> emissions of their cars sold on the EU market (ACEA by about 2.5%, JAMA by about 2.2% and KAMA by about 2.6%). The fuel efficiency improvements for diesel passenger cars are significantly better compared to those for gasoline vehicles.

ACEA shows good progress, while JAMA's is satisfactory. Both can be considered to be on track. In the reporting period 2000 ACEA achieved

the intermediate target range of 170g/km envisaged for 2003. If JAMA can, on average, maintain the reduction rate achieved in 2001 it would meet at least the 2003 intermediate target of 175g/km.

KAMA's progress is unsatisfactory, but in 2001 it achieved the highest reduction rate so far. There is a real risk that KAMA will not meet its 2004 intermediate target range of 170g/km. The Commission expects that KAMA will catch up in the coming years and KAMA has reconfirmed its commitment to do so.

In order to meet the final target of 140 g/km additional efforts are necessary (in particular by KAMA members). The average annual reduction rate of all three associations needs to be increased (on average the reduction rate must be about 2%, or about 4g/km per year. Over the reporting period 1995 to 2001 ACEA achieved on average about 1.9 % per year, JAMA 1.5 % per year and KAMA 0.9% per year). However, it was always anticipated that the average reduction rates would be higher in later years.

The Commission reminded carmakers that it could draft EU legislation to force down new cars' average carbon dioxide (CO<sub>2</sub>) emissions if they fail to reduce levels voluntarily. A footnote recalls EU governments' direction that further proposals, including legislation, should be immediately put forward if it becomes clear that all or any of the associations will not honor its commitments.

#### **14. Wallström Urges Further Climate Gas Cuts**

The more than half of EU member states currently not on track to meet agreed greenhouse gas limitation targets "have to do more", EU

environment commissioner Margot Wallström said at the launch of the Commission's latest annual report on EU greenhouse gas emissions. Like the report issued by the European environment agency (see above), it concludes that with present policies the EU will emit 4.7% less greenhouse gases in 2010 than 1990 compared with its target of -8%. However, the reduction can be boosted to over 12% if further efforts are made

Many of these further efforts would be achieved through EU-coordinated policies rather than through national initiatives. The report summarizes progress on a raft of Commission proposals already made or pending, ranging from the flagship greenhouse gas emissions trading directive just approved by ministers to new initiatives on more energy efficient public procurement, a forthcoming proposal for improved infrastructure use and charging, and a draft directive due next year to control emissions of fluorinated greenhouse gases.

#### **15. Mandatory Biofuels Targets Rejected By European Union Council of Ministers**

Rejecting a European Commission proposal that called for mandatory targets for the use of biofuels, European Union member states agreed Nov. 18 on compromise legislation to establish a two-phased voluntary approach. The agreement in the Council of Ministers is in contrast to terms approved during the first reading in the European Parliament, which backed the Commission proposal for mandatory targets.

The Commission and the European Parliament want the mandatory use of biofuels to amount to 2 percent market share of transport energy needs by 2005, 5.75 percent by 2010, and 20

percent by 2020. They said this is a crucial step in helping the EU meet its Kyoto Protocol greenhouse gas reduction targets. However, the EU member states agreed to a formula that calls for a voluntary threshold of 2 percent by 2005 and 5.75 percent by 2010.

The Council of Ministers also called for the Commission to draft an evaluation report based on submissions by member states that outlines the progress on implementation. The evaluation report could lead to adjustments in the targets by 2007.

The differences between the Council of Ministers and the European Parliament will have to be resolved in a Conciliation Committee.

The Commission claimed that biofuels--which are derived from agricultural sources such as sugar beet, cereals, and organic waste--are a source of renewable energy. However, the use of biofuels is controversial among industry and environmental groups. The European Petroleum Industry Association lobbied hard against mandatory targets. The industry group as well as environmental groups led by the World Wide Fund for Nature, the European Federation for Transport and Environment, and the European Environment Bureau dispute the Commission's view that biofuels will have an overall positive impact on the environment. The environmental groups claim that the Commission's own data derived from its Auto-Oil II research program show that some biofuels perform worse in terms of air pollution than conventional fuels.

## NORTH AMERICA

### 16. DOE Continues Effort To

### Change Diesel Rule

The Department of Energy is quietly canvassing stakeholders about easing implementation of EPA's low-sulfur diesel rule. DOE is suggesting a retailer -- instead of refiner -- mandate to avoid oversupply issues, and may pitch a proposal to EPA. A change in the rule would represent a shift in one of the few environmental initiatives by the Bush Administration.

DOE would have small marketers all supply the new 15 parts per million low-sulfur diesel to retain parity among retailers. But truck stops would offer both the old 500-ppm fuel along with the new low-sulfur diesel during the phase-in period, under a DOE plan. The older fuel could be as much as 8 cents per gallon less.

The EPA on-road diesel rule calls for refiners to begin implementation at 80 percent on June 1, 2006, the terminals would convert three months later and retailers one month later. On June 1, 2010, refiners would convert to the remaining 20 percent fuel; terminals would change over three months later and retailers one month afterward. The DOE proposal would essentially reverse the EPA percentages so a larger portion of older fuel would be produced upfront during a phase-in. Exact percentages haven't been determined.

### 17. Senators Fight OMB Plan For Modifying Air Quality Rules' Benefits

Backed by language in a recent scientific study, key senators are urging the Bush administration to drop its effort to make greater use of a controversial methodology for measuring the benefits of EPA clean air regulations that the lawmakers and other critics say downplays rules' potential health

benefits. In an Oct. 17 letter to Office of Management & Budget (OMB) regulatory chief John Graham, Sens. Jim Jeffords (I-VT) and Joseph Lieberman (D-CT) raised concerns that the administration has sought to use short-term “time series” studies to evaluate the health benefits of “several recent air pollution regulations.” Citing the recent National Academy of Sciences (NAS) study, the lawmakers call on the administration to rely instead on cohort studies --longer-term studies assessing chronic effects of air pollution -- to evaluate health consequences of the new source review (NSR) reforms.

Greater use of the cohort studies could help regulators justify strict new rules by boosting potential benefits, while increased use of the time series studies would downplay benefits, making it more difficult for regulators to back tighter emissions requirements.

The letter from the lawmakers urges the administration to rely on the cohort approach when analyzing the environmental impact of changes to NSR. The specific request is just one element of a broader ongoing critique of the reforms by Senate critics of the Bush administration, as EPA prepares to unveil a package of reforms to the Clean Air Act's NSR program (see above). The letter reiterates calls for the Bush administration to conduct a comprehensive analysis of the impact of the reforms.

But the issue raised by the lawmakers and the NAS study is broader than the NSR debate, potentially affecting other air rules. The administration is expected to conduct a comprehensive review of all the issues raised by the NAS report, which recommended bolstering the lawmakers' cohort claims but also urged greater analysis of uncertainty when projecting the benefits of regulations.

The NAS report and lawmakers' inquiries could spark a fresh debate within the administration over how to evaluate the benefits of several other forthcoming air emissions proposals, including a rule regulating emissions from “nonroad” engines used in farm and construction equipment and nonroad diesel fuel.

But the administration has already begun using the time-series methodology. For example, a technical support document on the administration's Clear Skies plan supplements a so-called “base estimate” of deaths prevented by the initiative with an alternative estimate. While the base estimate is based upon the cohort studies, the alternative estimate is based upon the short-term studies, and results in a benefit reduction of about 40 percent compared to the earlier approach.

The lawmakers' request comes in the wake of the NAS' report, Estimating the Public Health Benefits of Proposed Air Pollution Regulations, conducted in response to a request from congressional Republicans for a critique of current methods for evaluating the benefits of air pollution rules. Included in the report is a statement praising cohort studies as giving a “more complete assessment” of the benefits of curbing emissions -- text that the lawmakers cite in their letter as another reason for more analysis of the NSR plan.

However, others say the NAS report includes a variety of other recommendations that could bolster efforts by Graham and others to more closely scrutinize federal regulations, including a call for changes to analytical methods that could decrease, as well as increase, the estimated benefit of regulations. The recommendations also include a call for analysis of more alternatives to proposed emissions rules

and a greater focus on uncertainties surrounding benefits estimates.

### **18. Appeals Court Sets Aside EPA Vehicle Testing Program**

A federal appeals court has set aside an EPA vehicle certification program, potentially disrupting the auto industry's ability to sell vehicles. The U.S. Court of Appeals for the District of Columbia Circuit Oct. 22 decided in Ethyl Corp. v. EPA to vacate EPA's Compliance Assurance Program 2000 (CAP 2000) and order the agency to promulgate vehicle testing procedures through rulemakings that allow public input.

The decision is of immediate importance to automakers, because they cannot sell any model of vehicle without an annual emissions compliance certificate. Under CAP 2000, automakers were allowed to develop certification procedures with EPA whose details were protected under confidential business information (CBI) for competitive reasons.

But Ethyl Corp., a maker of fuel additives, sued EPA claiming that the confidential test procedures violated the Clean Air Act, which requires transparency in rulemakings. Ethyl argued that it should be allowed access to information about the tests so it could use that information to improve its products, which are designed to reduce emissions, and to have the opportunity to comment on the adequacy of the tests.

In its ruling, the D.C. Circuit backed Ethyl, rejecting EPA arguments that the tests themselves were CBI, the agency's contention that conducting a public rulemaking on an annual basis was too much of a burden, and EPA's claims that the plaintiffs lacked standing.

"Ethyl's assertions of injury fall into two

categories," the judges write. "First . . . it says that as a manufacturer of additives for motor vehicle fuels [Ethyl] has an interest in understanding the test methods and procedures by which the EPA certifies new motor vehicles. CAP 2000's provision for closed-door adoption of emission test procedures deprives Ethyl of information that might well help it develop and improve its products with an eye to conformity to emissions needs. Second, Ethyl says CAP 2000 deprives it of information that might be useful for securing EPA approval for its own fuel additive products under the Act."

EPA promulgated CAP 2000 in an effort to make vehicle certification testing more effective. Under the previous system, which had been in place for about 25 years, intensive and costly pre-production tests were conducted that rarely resulted in vehicles failing the durability tests, which are designed to determine that emissions will remain at certified levels over time. Under CAP 2000, in-use vehicles were rigorously screened to make sure they met emissions requirements while on the road rather than in a test environment.

### **19. Activists To Sue EPA For Weak Recreational Engine Standards**

A week following the publication of EPA's new standards affecting roughly 72 different engine types, one activist group made clear its intentions to sue the agency for being far too lenient on snowmobile manufacturers and not mandating a complete and total switch from two-stroke engine to four-stroke engine technology. EPA had published new emission standards affecting a multitude of off-road engines from those used in off-road motorcycles and all-terrain vehicles (ATVs), to forklifts and recreational marine diesel engines.



However, some activists remain unsatisfied with EPA's latest ruling, specifically those who are concerned with snowmobile emissions and their effect on wildlife in national parks.

Within the next 60 days, environmental group Bluewater Network will file a complaint against EPA in the Washington, D.C. Court of Appeals.

Instead of mandating an overnight switch to four-stroke technology, EPA has implemented a series of "first" phase-in standards based on a mixture of technologies ranging from clean carburetion and engine modifications, to direct fuel-injection two-stroke technology and "some conversion to four-stroke engines," according to the EPA rule published in the Federal Register."

The second and third phase-in standards are expected to be more aggressive in implementing more emission-reduction technologies and conversion to four-stroke engines. These efforts are aimed at reducing emissions of hydrocarbons (HC) and carbon monoxide (CO) by 30 percent in 2006, when the industry must begin complying with the rule, and by 50 percent in 2012, when full implementation is expected. However, Bluewater believes the standards do not go nearly far enough and their benefits would be felt too late.

#### **20. SCAQMD's Fleet Rules Upheld by Appeals Court**

The 9<sup>th</sup> U.S. Circuit Court of Appeals upheld the South Coast Air Quality Management District's (SCAQMD) "fleet rules" which require private and government agencies to purchase alternative fuel vehicles when replacing or expanding their fleets. The Engine Manufacturers Association (EMA) and

the Western States Petroleum Association had challenged SCAQMD's rule that resulted in the Court of Appeals decision. EMA announced that it might further appeal the court's decision to the U.S. Supreme Court. EMA claims that SCAQMD's rule violates the Clean Air Act, which does not allow state or local governments to set regulations limiting emissions from new vehicles.

#### **21. UPS Study Rates The Reliability, Low Emissions Of CNG Trucks**

A large study comparing trucks fueled by natural gas with others fueled by diesel found the natural gas vehicles produced lower emissions than their diesel counterparts. The study was conducted using package trucks operated by United Parcel Service, which has the nation's largest private compressed natural gas (CNG) fleet. The study compared the operations, maintenance, performance, and emissions characteristics of Connecticut-based CNG and diesel vehicles from 1997 to 2000, as part of the broader U.S. Department of Energy/National Renewable Energy Laboratory Truck Evaluation Project. In addition to volunteering use of its package trucks for the study, UPS staff worked closely with NREL during the study.

The CNG trucks ran every working day with no major complaints and were used as much or more than the diesel trucks.

Compared with diesel truck emissions, CNG truck carbon monoxide emissions were 75 percent lower, oxides of nitrogen 49 percent lower, hydrocarbons and nonmethane hydrocarbons 4 percent lower, and carbon dioxide 7 percent lower.

Total operating costs of CNG trucks

were 2 percent lower than total operating costs of diesel trucks at one of the study sites and 19 percent higher at the other site.

The CNG trucks had a 27 percent to 29 percent lower energy equivalent fuel economy than diesel trucks.

**22. CNG School Bus Emissions Exceed Low-Emitting Diesels In New Study**

Exhaust emissions from natural gas school buses contain higher levels of air pollutants and toxic air contaminants than those in school buses powered by advanced-technology, low-emitting diesel engines. That is the chief finding of research by Southwest Research Institute (SwRI(R)), presented to a recent Society of Automotive Engineers conference. The research compares emissions from a popular model natural gas bus with emissions from diesel school buses.

International Truck and Engine Corporation, which has begun selling a low-emitting diesel engine certified to U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) 2007 particulate and hydrocarbon emission standards, sponsored the research along with ConocoPhillips, a producer of the ultra-low-sulfur fuel that enables the use of the new diesel technology.

In the three tested bus configurations, the natural gas bus had the highest emissions of nitrogen oxides (NOx), nitrogen oxide (NO), total hydrocarbons, non-methane hydrocarbons, methane and carbon monoxide (CO), according to the SwRI research report.

The low-emitting diesel bus was found to be higher than both natural gas and conventional diesel in two other

emissions - nitrogen dioxide and carbon dioxide - but the low-emitting diesel had the lowest emissions of the four engine exhaust "criteria pollutants" regulated by EPA and the ARB: NOx, CO, particulate matter, and hydrocarbons.

The natural gas bus had lower emissions of carbon dioxide than the two diesel bus configurations, and lower emissions of nitrogen dioxide than the low-emitting diesel bus, SwRI reported.

Using ultra-low-sulfur fuel, International's low-emitting diesel bus engine, with a low-NOx engine calibration and a catalyzed particulate filter, was certified by the U. S. Environmental Protection Agency as well as the California ARB as reducing particulates and hydrocarbons to the 2007 levels. In California, this engine and reduced sulfur fuel enabled Green Diesel Technology(R) school buses to qualify for state funds made available for the purchase of "lower emission" school buses.

SwRI's research is the first to provide comparable detail in testing the emissions profile of low-emitting diesel school bus technology alongside those of conventional diesel engines and natural gas engines used in school buses.

The low-emitting Green Diesel Technology(R) bus used a catalyzed particulate filter and a low-NOx engine calibration, and was fueled with less than 15 parts per million sulfur content diesel fuel provided by ConocoPhillips.

An 8.1-Liter John Deere natural gas engine powered the second bus, a 2000 model year Blue Bird All-American, typical of natural gas school buses sold prior to 2002 and now in service. More recent-model natural gas buses may be purchased with an oxidation catalyst; the California ARB is conducting testing

of natural gas transit buses with oxidation catalysts.

**23. Public Health,  
Environmental Groups  
Resolve Smog Lawsuit with  
EPA**

In a major victory for clean air and public health, a coalition of health and environmental groups has announced a court settlement that will improve cleanup of smog (ozone) in communities across the country. The settlement, reached with the U.S. Environmental Protection Agency in a federal court lawsuit, will kick off a long-delayed process for lowering ozone levels to meet new national air quality standards issued in 1997.

The groups bringing the legal action include the American Lung Association, Environmental Defense, the Natural Resources Defense Council, and the Sierra Club. Earthjustice has represented these organizations in the lawsuit. Five state and regional groups, including the Alabama Environmental Council, Clean Air Council, Michigan Environmental Council, Ohio Environmental Council, and the Southern Alliance for Clean Energy, have also participated in the suit, represented by the Clean Air Task Force.

Court papers call on EPA to formally determine, by April 2004, which areas fail to meet national standards for ozone. Air quality in numerous communities in 38 states is expected to be found out of compliance. Once EPA makes those determinations, state and local programs will be called on to reduce smog emissions to meet the standards.

“This settlement means that work can begin to attack ozone and greatly

reduce the risk to the most vulnerable Americans, including children, seniors, and people with asthma and other chronic lung diseases, from exposure to ozone smog,” said John L. Kirkwood, President and CEO of the American Lung Association. “The long wait since 1997 has meant that our air has stayed dirty far too long and many more people have suffered.”

EPA revised the national ozone standard five years ago to 0.08 parts per million averaged over eight hours, strengthening the previous standard (0.12 parts per million averaged over one hour). Although Congress directed EPA to determine, no later than July 2000, which areas fail to attain the new ozone standard, the agency has yet to do so.

The 1997 ozone standards are based on years of scientific review and mounting evidence of the public health risk. Ozone is a powerful irritant, which leaves the lungs inflamed, as though they were sunburned. Ozone causes asthma attacks, coughing, wheezing and other respiratory distress, and is linked to increased use of medications, hospitalizations, and emergency room visits. Recent studies showed that ozone levels low enough to comply with the previous ozone standard – levels experienced each year by millions of people around the nation – are still high enough to cause significant health impacts. Implementation of the new, more protective standards will prevent thousands of asthma attacks, hospitalizations, and asthma-related emergency room visits each year.

Ozone levels can be reduced cost-effectively, using a combination of federal, state, and local efforts. For example, the adoption of new federal emissions standards and cleaner fuel requirements to reduce the emissions of ozone-forming pollutants from

construction equipment and other large non-road engines would make a major contribution to healthier air quality.

The proposed settlement was filed in United States District Court for the District of Columbia (Docket No. 02-2239).

#### **24. Scientists Defend Findings Of Landmark Pollution-Mortality Study**

Johns Hopkins researchers have confirmed an indisputable connection between acute exposure to particulates -- from a wide variety of sources including diesel exhaust -- and premature death, after completing a reanalysis of their extensive study on the links between particulate air pollution and mortality.

Johns Hopkins University and other researchers presented their results at a Nov. 4-6 EPA conference to address the reanalysis of a host of important studies the Hopkins investigators earlier this year announced had been flawed by using unsophisticated computer software that significantly overestimated the short-term negative health impacts. The discovery called into question the studies' results, including the landmark 90-city Hopkins study, known as the National Morbidity, Mortality & Air Pollution Study (NMMAPS).

The reconfigured NMMAPS results remain generally unchanged, Hopkins researcher Francesca Dominici said. Dominici said the researchers ran the model in two new ways to correct for the software's shortcomings and compared the differences. The original conclusions found a .41 percent increase in death for every 10 microgram per cubic meter increase in particulate matter exposure. The two new runs showed the death rate to be a .27 percent increase and a

.21 percent increase.

Dominici said while it is true the reconfigured results do show a decrease of 35 percent and 50 percent, respectively, the actual numbers are extremely small and therefore the difference in mortality is "almost nil." "It is true numerically the drop is 35 percent, but that is not representative of what is really going on," she said. "All major NMMAPS conclusions are unchanged."

Dominici also strongly defended the NMMAPS study, which is among the most comprehensive ever conducted on particulate pollution to date, saying the software limitations changed the national average estimates "quantitatively but not qualitatively." She added that NMMAPS is a conservative approach that remains robust using the new modeling runs and can stand up to sensitive analysis. Hopkins researchers are continuing to study the software characteristics and increase its flexibility to provide even more detailed estimates of air pollution effects.

The EPA workshop was the first step in a joint EPA-Health Effects Institute (HEI) effort to address the computer glitch, which occurred when researchers used the "default" convergence setting on a popular statistical software package known as S-plus.

EPA has asked authors of research affected by the software glitch to submit a short paper explaining their reanalysis to EPA by Dec. 5, and earlier this month the agency issued a technical corrective guideline for the researchers to follow in completing their reanalyses. Those papers will be peer-reviewed by an HEI-convened panel early next year.

The work must be completed quickly so it can be considered in EPA's fourth draft of a criteria document the agency

is scheduled to release in April to determine any necessary changes to national ambient air quality standards for particulate matter. EPA's Clean Air Science Advisory Committee (CASAC) will consider the criteria document at its meeting next July in preparation for the release of the final document in November. "It is a daunting task under a short timeframe," EPA's Lester Grant told the workshop members.

Grant also made clear that the reanalyses would be limited to making adjustments to the original papers caused by the software problem, despite calls from some participants to reanalyze the underlying work of the papers that had already been accepted by CASAC. Harvard University researcher Joel Schwartz said many of the suggestions to take new looks at old studies had merit, but he noted, "In this country, research is funded." EPA had determined that the original researchers would be responsible for funding the correction process due to the software glitch.

But other participants, including Sverre Vedal of the National Jewish Medical Center, who will chair the HEI review panel, said it would be more useful to address other issues related to the modeling instead of focusing solely on the specifics of the software problems. Vedal said he was particularly concerned about what overall conclusions could be drawn if researchers ended up with different results on their reanalyses, with some showing trivial changes to the health impacts and others reflecting large changes. "I hope we have insights as to why," Vedal said.

Schwartz noted that further reanalysis would require a lot of time and a great deal of work, and said he would "feel somewhat less obligated" to address those requests than he did when the

software glitch came to light.

Meanwhile, Johns Hopkins researchers continue to address the overriding software limitations on a number of fronts. The university's broad NMMAPS reanalysis report is being reviewed by HEI for re-release soon. Dominici is also writing a paper with the GAM model author on how to adjust for the limitations of the software, which has to do with how many "loops" the data is run through before coming to a conclusion. The original software was unable to handle the amount of data and when used on the default setting, did not run it through enough loops. The problem can be corrected now because computers are more sophisticated and can crunch many more numbers in shorter time periods.

The draft GAM paper, which should be released in December, will have new inputs for standard errors and other adjustments that statisticians will use to correct the shortcomings in future modeling runs. That paper will go through a statistical research review process and will eventually become the new standard for using GAM models.

### **25. Republican Party Victory in November Elections Will Likely Impact Nation's Energy and Environmental Policies**

The Republican Party's significant victories in this fall's Congressional elections where it increased in majority in the House of Representatives and captured control of the Senate will reshape the debate on both energy and environmental issues. The energy bill which was pending in the House/Senate Conference Committee has been shelved as Republicans look to next year and the 108<sup>th</sup> Congress to draft a bill more to their liking. With its new power base in the Senate, Republicans

will likely reintroduce energy legislation that will emphasize domestic energy exploration and production and place little emphasis on energy conservation measures.

With regards to the Clean Air Act, the picture is also troubling. While a comprehensive re-write of the Clean Air Act over the next two years seems unlikely given the close Republican/Democratic split in the Senate, targeted attacks on specific Clean Air provisions remains a real threat. There has been open discussion, for example, of attaching riders to appropriations bills as a means to prevent EPA actions. Also, any Congressional oversight of the Bush Administration's failure to carry out Clean Air Act mandates is gone now that the Democrats no longer control the Senate. Individuals with a long history of being Clean Air Act opponents will fill many of the House and Senate leadership positions.

For starters, the chairmanship of two key Senate committees will pass from two reliable conservationists to men with deplorable records on energy and the environment, James Inhofe of Oklahoma and Pete Domenici of New Mexico. Many believe that the election results are likely to encourage the administration's quiet but lethal efforts to undermine environmental law through administrative rulemaking and judicial negotiation. The New York Times noted in a recent editorial that the situation today seems virtually identical to what it was in 1995, when Newt Gingrich and his Contract With America Republicans swept into town determined to reverse 30 years of bipartisan environmental law protecting the country's air, water and wilderness. "With this crucial difference: Bill Clinton isn't in the White House anymore."

As noted by the Times, from day one,

Mr. Bush has pursued an antiregulatory agenda unmatched since the Reagan years, filling key positions with industry lobbyists and using whatever justification seems handy to ease up on industry. Last summer's forest fires, for example, became an excuse to try to suspend environmental reviews of logging projects. The California energy crisis (and, later, the fear of increasing dependence on Middle Eastern oil) have been invoked to justify pell-mell exploration for relatively trivial amounts of oil and gas on fragile Western lands, often in plain violation of environmental rules.

The administration's determined efforts to satisfy its corporate allies at the expense of the environment show no signs of abating. Most recently, it unilaterally relaxed the rules governing pollution from old coal-fired power plants without putting any new and improved rules in their place (see below). Until now, legal action by advocacy groups and oversight by Senate Democrats have helped slow the onslaught. But the election has relegated the Democrats to a secondary role. Instead of James Jeffords, the Vermont independent who votes with the Democrats, we now have Mr. Inhofe as chairman of the Environment and Public Works Committee. A reliable advocate for oil and gas interests, Mr. Inhofe is also a longtime critic of the Clean Air Act whose dismal ratings on environmental issues set him apart from the pro-environment Republicans who have run the committee in the past.

Mr. Domenici, the new Energy Committee chairman, is even more threatening, partly because he is such a skilled legislator. In 1995, he contrived to attach a provision opening the Arctic National Wildlife Refuge to oil drilling to a budget reconciliation bill, causing a government shutdown when President Clinton vetoed the bill. Mr. Domenici is

certain to go after the Arctic again, and other public lands as well.

## **26. Bush Administration Plans To Ease Utility Emissions**

Fulfilling the post election prophecies, the Bush administration has announced that it wants to ease anti-pollution rules to encourage the expansion of power plants and refineries. The long-expected change in policy will actually "encourage emissions reductions," Christie Whitman, the administrator of the Environmental Protection Agency, said. Ms. Whitman said that the old rules "have deterred companies from implementing projects that would increase energy efficiency and decrease air pollution."

Ms. Whitman's announcement makes official what has been known for many months: that the Bush administration wants to revise some sections of the Clean Air Act in ways that will answer utilities' complaints that the rules tie them up in paperwork and deter investment in new power plants needed to provide electricity to consumers and businesses.

The move puts the administration at odds not only with some environmental groups but also with some politicians normally friendly to President Bush. Gov. George E. Pataki of New York, a fellow Republican, has long opposed the White House's approach on the issue. So has another New York Republican, Representative Sherwood L. Boehlert, of the Utica area. Air pollution has been a major concern in New York State for decades, in part because polluted air coming from the west has been blamed for fouling the once pristine skies and lakes in the state's Adirondacks region.

The administration's intentions to relax the rules on what is called "new source

review" have been hotly debated for months. Critics of the White House approach have argued, among other things, that it could intensify pollution in certain "hot spots" by encouraging businesses to write off certain locales and steer their pollution there.

On the other hand, people skeptical of new source review have contended that it can have perverse effects by discouraging managers of plants built in the 1940's and 1950's from doing anything to make them more efficient, since modernization triggers a new source review process that leads to costly new investments.

Because revamping of the plants has required review by federal authorities, enforcement of the regulations has sometimes been accompanied by disputes over what constitutes "routine maintenance." Some environmentalists have criticized plant managers for carrying out extensive overhauls but disingenuously describing them as "maintenance" to skirt federal regulations.

Lawmakers were unable this year to pass legislation that amends the Clean Air Act by creating new standards for power-plant emissions. All sides weighed in with their respective positions, however, and the issue is poised for action in the 108th Congress. Three significant proposals are already on the table; the Bush administration's Clear Skies Initiative, Senate Environment and Public Works Committee Chairman Jim Jeffords' (I-Vt.) Clean Power Act and a recently introduced middle-ground approach from Senate moderates Thomas Carper (D-Del.), John Breaux (D-La.), Max Baucus (D-Mont.) and Lincoln Chafee (R-R.I.). The GOP-led House, meantime, took a broad look at CAA issues during the 107th Congress but never moved on any specific bill.

The Senate packages take different approaches to the emissions issue, with the biggest divides over first-ever carbon dioxide control requirements, mercury trading and the Bush/moderates push for a regulatory overhaul to the existing Clean Air Act.

Environmentalists stand firmly behind Jeffords' bill, S. 556, which after months of delay passed by a nearly partisan, 10-9 margin from the EPW Committee this June. Among other things, green groups prefer the Jeffords approach for its tight CO2 scenario, strict mercury cap with no trading mechanism and a so-called birthday provision that requires all utilities 40 years and older until 2013 to install the best available control technology or face shutdown. Industry, Congressional Republicans and the Bush administration have scoffed at the Jeffords plan, saying it is unworkable and would wreak havoc on the nation's economy by pressuring utilities to switch their fuel from abundant supplies of coal to a more limited natural gas.

Enter Clear Skies. The White House energy plan, released in May 2000, called on EPA to draft legislation addressing emissions of smog-forming nitrogen oxides, acid rain-causing sulfur dioxide and mercury. The Bush plan would not include a CO2 requirement. EPA Administrator Christie Whitman early on said that the Bush approach would call for sweeping CAA reforms because the new targets would overlap with what is already on the books.

When Bush himself unveiled Clear Skies in February 2002, he said it would mean less litigation while providing for more certainty for the electricity generation sector. Now a lame-duck senator, the Environment and Public Works Committee's then top Republican, Robert Smith (R-N.H.), and House Energy and Commerce Air

Quality Subcommittee Chairman Joe Barton (R-Texas), introduced Clear Skies, S. 2815 and H.R. 5266, in July. Bush EPA officials plugged Clear Skies' emission targets and said the results showed their approach would mean healthier air at a faster pace than anything currently in law. By 2020, EPA said the power-plant emission reductions gained under its approach would claim \$96 billion annually in public health and visibility benefits -- including 12,000 avoided premature deaths -- at a cost to the utility industry of \$6.5 billion per year.

Noting the book-end proposals from Bush and Jeffords, the Senate moderates in October unveiled a bill, S. 3135, that includes a less strict set of CO2 requirements, mercury trading and CAA overhaul akin to Clear Skies. Highlighting the intense nature of the debate, the Carper-Breaux-Baucus-Chafee bill fractured both the energy production and environmental communities. Looking ahead, the cosponsors are key players in the CAA debate and their names on a bill indicate the cross-country appeal of passing legislation.

### **27. U.S. Administration Offers More Study of Global Warming But No Action**

The Bush administration has released a draft strategic plan Nov. 11 for a research program that is intended to clear up scientific uncertainties regarding climate change. The administration previously has said these uncertainties contributed to President Bush's decision in 2001 to disengage from the implementation process of the Kyoto Protocol. The research emphasis in the plan, The Strategic Plan for the Climate Change Science Program, is on observing the current climate and keeping a high quality and consistent



climate record accessible to the public.

The public may comment on the draft plan during the U.S. Climate Change Science Program Planning Workshop for Scientists and Stakeholders Dec. 3-5 in Washington, D.C., and during a subsequent public comment period extending to Jan. 13. After incorporating comments as well as an analysis by a committee of the National Research Council, the White House expects to publish the final strategic plan by April.

The plan will set a path for the next few years of research under the new Climate Change Science Program, according to James Mahoney, director of the program. The administration's newly coordinated management structure, known now as the Climate Change Science Program, combines research efforts in the U.S. Global Change Research Program, authorized by the Global Change Research Act of 1990, with the Climate Change Research Initiative Bush launched June 2001.

The administration said its research plan was developed to reduce "significant uncertainties" in climate science, to improve global climate observing systems, and to develop resources to support policymaking and resource management.

The plan provides for research on:

- The natural forces driving global climate change such as solar variability and human forces such as changes in land cover and emissions of greenhouse gases and aerosols;
- Changes in clouds in different parts of the atmosphere and their potential either to dampen or

accelerate climate change, and alterations in other aspects of the water cycle of evaporation, precipitation, and storage that affect water resources;

- The carbon cycle, which transfers carbon among different reservoirs in the atmosphere, on land, and in the oceans, and affects the amount of carbon dioxide emitted from human activities remaining in the atmosphere;
- The potential effect of global change on human activities and health, and analyzing different courses of action to manage risks and realize benefits; and
- The potential role of developing and recently-developed technology to reduce greenhouse gas emissions in the short and long term, including considerations of costs, effectiveness, and intended and unintended consequences of this new control technology.

By investigating a targeted, comprehensive set of questions, the program "seeks to focus attention on key climate change issues that are important for public debate and decision making, while maintaining sufficient breadth to facilitate the discovery of the unexpected," the plan said.

The draft strategic plan was developed by the 13 federal agencies, including the Environmental Protection Agency, and staff participating in the Climate Change Science Program with input from a large number of scientific steering groups.

### **28. US May Target Soot In Climate Change Work**

The United States may put more stress on controlling carbon soot as a speedy way to respond to global warming, White House science advisor John Marburger said recently. Marburger used carbon soot as an example of how the United States could act while refining its overall plan on climate change. Administration officials who joined him at a news conference said it was too early in the budget-writing process to say how much money the administration would seek for climate change in fiscal 2004. Commerce Secretary Don Evans said the United States, with outlays of \$4.5 billion a year, spent more than Europe and Japan combined.

While noting that action could be taken in the interim, Marburger mentioned carbon soot as a substance that would be controlled fairly quickly. Carbon dioxide gas can persist in the atmosphere for decades, he said. "Yes, you probably will see more emphasis on things like carbon soot" and other constituents of greenhouse gases, he said in response to a question. But he also said a balanced approach was important.

In congressional testimony in July, Assistant Commerce Secretary James Mahoney, director of the U.S. climate change science program, said one of the areas needing more research was "the relative importance of carbon-based (black carbon) aerosols, sulfate-based aerosols and (carbon dioxide) and other greenhouse gases in influencing climate change - each related to differing control strategies."

### **29. EPA Releases 27th Annual Mileage Estimates For 2002 Model Year Cars**

The Environmental Protection Agency announced the 27th annual Miles Per Gallon estimates for 2002 passenger vehicles. For the third year in a row, the Honda Insight is ranked as the most fuel-efficient car at 61 miles per gallon (mpg) for city driving and 68 mpg on the highway.

"Choosing the most fuel efficient vehicles in a class of cars can save the owner more than \$1,500 in fuel costs and prevent the release of about 15 tons of global warming pollution over the vehicle's lifetime," said Administrator Christie Whitman. "Fuel efficient vehicles come in all shapes and sizes, consumers do not have to sacrifice to make a difference for the environment," Whitman added.

"Reducing our nation's dependence on imported oil is crucial to our national energy security – now more than ever before," said Secretary Abraham. "Conserving fuel by driving a more efficient vehicle is one way each of us can do our part. With the new Fuel Economy Guide, car-buyers have the information they need to help select the safest, cleanest and most fuel-efficient vehicle to meet their needs."

Fuel economy estimates are determined by averaging numbers gathered through tests conducted by manufacturers and verified by EPA. Vehicles in each class are tested in a controlled setting, and the results are adjusted to reflect actual driving conditions. All vehicles are tested in the same way so consumers can compare the results when choosing a vehicle type or class. The miles-per-gallon ratings appear on window stickers on all new cars and light trucks prior to sale. Consumers can use this

information to identify the most fuel-efficient vehicles to purchase.

City and highway mileage are the two fuel economy estimates given for each vehicle. City mileage represents urban driving when the vehicle is started in the

morning after being parked all night and driven in stop-and-go traffic. Highway mileage represents a combination of rural and interstate highway driving in a warmed-up vehicle traveling on longer trips without frequent stopping.

Highest Fuel Economy Models Manufacturer/Model	MPG City/Highway
1. Honda Insight (hybrid electric, manual)	61/68
2. Honda Insight (hybrid electric, automatic)	57/56
3. Toyota Prius (hybrid electric, automatic)	52/45
4. Volkswagen Jetta Wagon (diesel, manual)	42/50
5. Volkswagen New Beetle (diesel, manual)	42/49
5. Volkswagen Golf (diesel, manual)	42/49
5. Volkswagen Jetta (diesel, manual)	42/49
6. Honda Civic HX (manual)	36/44
7. Honda Civic HX (automatic)	35/40
8. Volkswagen Golf (diesel, automatic)	34/45
8. Volkswagen Jetta (diesel, automatic)	34/45
8. Volkswagen Jetta Wagon (diesel, automatic)	34/45
9. Volkswagen New Beetle (diesel, automatic)	34/44
10. Toyota Echo (manual)	34/41

**30. Bush Auto Fuel Efficiency Plan Criticized**

Automakers and environmentalists this week criticized a draft Bush administration plan to raise fuel economy standards for sport utility vehicles and other light trucks. An administration source said the proposal under development would boost fuel standards for that popular class of vehicles by 1.5 miles per gallon between the 2005-2007 model years. The total would be realized in half-gallon annual increases. The current Corporate Average Fuel Economy (CAFE) standards, first adopted by Congress for the industry in 1975 after the Arab oil embargo, require passenger cars to average 27.5 mpg and light trucks to get 20.7 mpg. At the time, light trucks were allowed to get lower mileage because mostly farmers and small businesses used them. Now, sport utility vehicles,

pickups and minivans account for half of U.S. vehicle sales and tend to be used as cars.

Regulators resumed their study of CAFE levels last year after a six-year prohibition by Congress from doing that work due to strong opposition from key lawmakers. They have based much of their draft plan on data from the Big Three automakers in Detroit - General Motors Corp. Ford Motor Co. and DaimlerChrysler AG. But the industry has long opposed regulation mandating higher fuel standards, saying any increase should come from innovation and technology.

The 'Big Three' have all committed to selling limited numbers of more fuel-efficient hybrid-powered pickups or SUVs, but those on the market so far account for only a tiny fraction of overall sales.

The Union of Concerned Scientists, a

scientific and environmental advocacy organization, said fuel savings from the administration's plan would be negligible.

The Transportation Department's National Highway Traffic Safety Administration would like to formally propose the standard in the coming weeks and finalize it by April, the administration source said under the condition of anonymity. Under federal law, automakers must be given at least 18 months to make design changes if NHTSA proposes a fuel efficiency increase.

### **31. Chrysler To Roll Out Diesel SUV, Hybrid Pickup**

DaimlerChrysler AG's Chrysler arm said this week it will roll out a gasoline-electric hybrid pickup truck next year and a diesel-powered sport utility vehicle in 2004, in a bid to test consumers' willingness to pay for better fuel economy. But Chrysler said it had cancelled another hybrid vehicle that had been planned for 2003 because it could not build a business case for it. And Chrysler executives warned that hybrid-and diesel-powered models would not be built in significant volume unless U.S. customers accept their higher costs.

Chrysler President Dieter Zetsche said Chrysler would sell a Jeep Liberty SUV powered by a Mercedes diesel engine in the second half of 2004 that will have up to 30 percent better fuel economy than a gasoline-powered model. Zetsche said Chrysler will build about 5,000 diesel Liberty models to see how well American consumers accept diesels. Chrysler already sells diesel-powered Jeeps in Europe, but has to tweak the Liberty slightly to meet U.S. standards.

U.S. automakers, facing tougher

government rules on fuel economy, have been touting diesel engines as a way to improve efficiency, reduce greenhouse gas emissions and cut U.S. dependence on imported oil. While diesels get better fuel economy than gasoline engines, they also produce more nitrogen oxides, a component of smog, as well as particulates.

In Europe, diesels account for roughly 40 percent of all new vehicle sales, thanks to tax incentives and low-sulfur diesel fuel, which allows automakers to better control emissions. The U.S. Environmental Protection Agency has ordered U.S. oil refiners to begin producing low-sulfur diesel fuel in 2006. American automakers have also been loathe to roll out diesels in the United States for fear of rejection by consumers who remember Detroit's diesel experiments of the 1970s and 1980s, which were renowned for their noise, smell and lack of reliability.

Chrysler research found that only about 6 percent of buyers were interested in diesels. Zetsche also said Chrysler would not be able to raise the Liberty's prices to cover all the extra cost of the diesel. "Obviously, to change the image of diesels in the customer's mind is a heroic challenge, and we don't know what is possible," Zetsche said. "We hope we'll have a positive surprise about the demand."

Bernard Robertson, Chrysler's senior vice president of engineering technology and regulatory affairs, said the company had cancelled a hybrid vehicle slated to be built in 2003 that would have used electric motors to provide all-wheel-drive. Two years ago, Chrysler said it would offer its hybrid system as an option on its Dodge Durango SUV that could provide a 20 percent boost in fuel economy. But the Durango was delayed after testing found the hybrid system did not perform as well as planned. While

Chrysler tested the system on other vehicles, Robertson said the fuel economy and all-wheel-drive benefits were not enough to offset the extra cost.

To keep its pledge to build a hybrid in 2003, Chrysler accelerated the Dodge Ram Contractor's Special hybrid pickup truck by a year. The Ram hybrid uses a different system than the Durango, placing an electric motor between the gasoline engine and the transmission. It also features an electrical panel that drops down from the side of the truck, allowing it to do double duty as a low-cost generator.

That model, and a similar proposal from General Motors Corp., has drawn the attention of the U.S. Army, which sees combat versions of hybrid trucks helping to reduce its fuel demand. Chrysler officials said while they had originally planned about 5,000 hybrid Rams a year, an army contract could boost output substantially.

Ford Motor Co. is planning to introduce a hybrid Escape SUV late next year and GM is planning on rolling out a hybrid pickup in 2004.

### **32. Purchases of Alternative-Fuel Vehicles By G-8 Countries Urged by Global Forum**

Scientists, automotive engineers, economists, fuel experts, government officials, and environmental advocates recommended Nov. 13 that members of the Group of Eight industrialized nations buy 10,000 alternative-fuel vehicles each by 2008. A panel convened by the U.S. Department of Energy as the Global Forum on Personal Transportation made a series of recommendations after a two-day meeting that focused on lowering emissions. David Garman, assistant

secretary for energy, promised all recommendations would be forwarded to Energy Secretary Spencer Abraham, who would present them to G-8 energy ministers before their first meeting in 2003.

The so-called G-8 nations include the world's seven wealthiest industrialized democracies--the United States, Germany, Japan, France, Canada, the United Kingdom, and Italy, also known as the G-7--plus Russia.

Some of the recommendations would have the endorsement of the U.S. government, Garman said. He could not say whether the U.S. government would endorse the G-8 governments' purchase of 80,000 alternative fuel vehicles--dubbed "80 K by G-8 in '08". But Garman said he would endorse government purchase of new technology.

"It's a way for government to demonstrate leadership," Garman said, adding it is also a way to produce something concrete. "Congress and the OMB [Office of Management and Budget] are open to the idea of government purchase of vehicles," Garman said, noting that the U.S. government fleet has 600,000 vehicles. "There is room for some real significant purchases of fuel cell vehicles when they reach that level of functionality and affordability," Garman said. "I can't quantify what year that happens."

Tom Gross, a director at DOE's Office of Energy Efficiency and Renewable Energy, synthesized the forum's recommendations into four. In addition to "80 K by G-8 in '08," they were:

- Promote public appreciation and market demand for higher energy efficiency and lower emissions for mobility systems;
- Create a mechanism for sharing

technical information and planning to reduce overlap and duplication of research and development efforts; and

- Encourage international groups to reach agreement on a common certification process and move forward.

The ideas behind the recommendations came from small-group brainstorming sessions over two days. Many of the small groups discussed the need for uniform regulations on safety, emissions, fuel economy, fiscal policy, and duty cycles from country to country. The small groups stressed that industry must be involved in the creation of uniform codes and standards.

Representatives from the United States, Japan, Australia, Germany, France, the United Kingdom, the Netherlands, Mexico, China, India, Canada, the European Union, the World Bank, universities, and nongovernmental organizations attended the conference.

### **33. EPA Amends the Tier 2 Motor Vehicle Emission Regulations**

The Tier 2 rule when fully phased in contains eight emission standards “bins” (bins 1 through 8). Each bin is a set of emission standards to which manufacturers can certify their vehicles, provided that each manufacturer meets a specified fleet average NOx standard. Two additional bins - bins 9 and 10 - are available only during the interim program (2004 through the 2006 model year for light-duty vehicles (LDVs) and light light-duty trucks (LLDTs), and through the 2008 model year for heavy light-duty trucks (HLDTs) and medium-duty passenger vehicles (MDPVs)). This direct final rule clarifies some aspects of

the interim program requirements for light-duty diesel vehicles certifying to bins 9 and 10.

In addition to bins of exhaust emission standards for the Federal Test Procedure (FTP), the Tier 2 rule also established exhaust emission standards for the Supplemental Federal Test Procedure (SFTP). The SFTP procedures are intended to control emissions that occur during types of driving that are not well represented on the FTP, including rapid accelerations and decelerations, high speed driving, and driving with the air conditioner operating.

EPA stated in the Tier 2 final rule that major technological innovations will not be required for gasoline vehicles to meet the Tier 2 standards, but that the standards will be especially challenging for diesel vehicles and will likely require the application of advanced aftertreatment technologies. These aftertreatment technologies are dependent on the availability of clean diesel fuel, without which they are not effective and may be susceptible to damage. For this reason, EPA included some provisions in the initial years of the Tier 2 program to enable diesels to meet the interim requirements without the availability of low sulfur diesel fuel. EPA also allowed manufacturers to certify vehicles to an interim bin 10 during the initial years of the program. EPA stated that it believed diesel engines could meet the full useful life requirements in bin 10 without the need for low sulfur diesel fuel. Beyond the interim program, however, EPA has provided for the availability of clean diesel fuel starting in mid-2006, and thus the program was structured so that diesels will be treated no differently than gasoline vehicles when the final Tier 2 program is effective and applicable to the entire fleet.

In the Tier 2 rule, it was EPA's intent to exempt diesel vehicles from the intermediate life standards of both the FTP and SFTP for the temporary duration of bin 10 in order to enable light-duty diesels to continue to be manufactured in the absence of low sulfur fuel. The intermediate useful life standards for diesels certifying to bin 10 during the interim program are not considered necessary because diesel engine-out emissions (e.g., emissions from diesel vehicles not equipped with aftertreatment emission control devices) are typically stable or decreasing as mileage is accumulated.

Although EPA intended to make optional for diesels the FTP intermediate useful life standards, the SFTP 4,000-mile standards, and the SFTP intermediate useful life standards during the interim program, the regulatory language does not capture this intent and requires diesel vehicles certifying to bin 10 to comply with full useful life SFTP standards and either the 4,000-mile or intermediate life SFTP standards. In this direct final rule, EPA amended the regulations to be consistent with the original intent that for diesel vehicles certifying to bin 10, compliance with the intermediate useful life standards of both the FTP and the SFTP be optional. This optional compliance will only be available as long as bin 10 is available. This change primarily applies to NOx emissions, as there is no intermediate useful life standard for particulate matter (PM) on either the FTP or SFTP.

This direct final rule also revises the regulations applicable to diesel vehicles certified to bin 9 so that the intermediate useful life FTP and SFTP standards will also be optional for bin 9 diesel vehicles. When the Tier 2 rule was finalized more than two years ago, EPA limited the diesel intermediate life option to bin 10 because the information available at the time suggested that it would be

challenging for diesel vehicles to meet the bin 10 standards in the absence of low sulfur diesel fuel, and no vehicle manufacturers were predicting that diesels would be able to meet the standards of more stringent bins during the interim program. However, in the time since the finalization of the Tier 2 rule EPA has learned that light-duty diesel vehicles are under development that are capable of meeting the bin 9 exhaust emission standards and could be introduced during the interim Tier 2 program. One manufacturer of these vehicles has therefore requested that the regulations be modified such that the bin 9 requirements for diesels mirror those of bin 10 by providing diesels the option of opting out of meeting the intermediate useful life standards. Certification to the bin 9 standards would be a significant achievement in the advancement of light-duty diesel technology in the initial years of the Tier 2 program, as the NOx standard is one-half that of the bin 10 NOx standard (0.3 grams per mile for bin 9 and 0.6 grams per mile for bin 10). Further, the PM standard for bin 9 is 0.06 grams per mile, whereas the bin 10 PM standard is 0.08 grams per mile. According to EPA, if it had anticipated at the time of finalizing the Tier 2 rule that diesels would be capable of meeting the bin 9 standards in the absence of low sulfur diesel fuel, it would have extended the intermediate life opt-out option to diesels certifying to both bin 9 and bin 10 standards.

#### **34. White House Would Support Limited CAA Exceptions For Clean Diesels**

A top Bush administration environmental official has hinted that the White House may support a narrow exception to Clean Air Act Tier II emissions standards for diesel-fueled passenger vehicles if Congress passes the

administration's Clear Skies "three-pollutants bill." At least one automaker has reportedly been quietly shopping the idea of an exception to Tier II in an effort to jump start clean diesel technology in the U.S.

John Connaughton, Chairman of the White House's Council on Environmental Quality, has reportedly stated that in his view any increase in harmful emissions resulting from relaxing EPA's Tier II regulations for light-duty diesel vehicles would be negligible in comparison to the reduction in emissions resulting from enactment of the administration's Clear Skies initiative. "Any bump up from diesel would be background," Connaughton was quoted as saying.

The exceptions being explored would only relax the standard for nitrogen oxides (NOx), not particulate matter emissions.

DaimlerChrysler has announced plans to introduce the 2005 model year Jeep Liberty with a diesel engine option. The diesel Jeep will be available for sale in the second half of 2004. The diesel Jeep Liberty will feature a 4 cylinder, turbocharged, 2.8 liter, common rail diesel engine supplied by DaimlerChrysler VM Motor division in Italy. DaimlerChrysler currently sells a version of the Jeep Liberty in Europe equipped with a Mercedes-Benz diesel engine. DaimlerChrysler CEO Dieter Zetsche announced the new diesel Jeep Liberty at a press conference in New York on November 25, 2002. DaimlerChrysler is targeting the sale of approximately 5,000 diesel Jeeps during its first year of sales in the U.S.

### **35. ARB Unveils ZEV Program Changes at December 5, 2002 Workshop –**

ARB staff presented a "straw man" proposal at their December 5, 2002 workshop covering modifications to the ZEV program made necessary by industry litigation concerning the use of fuel economy-based credits for ZEVs and Advanced Technology PZEVs (AT-PZEVs). This "straw man" proposal included the following modifications to the ZEV program amendments adopted in 2001:

- ZEV vehicle sales percentage requirements would be delayed until the 2005 model year. Credits earned prior to 2005 would be retained at their full value for use starting in 2005.
- All references to fuel economy credits would be removed from the program and in their place a "flat" credit would be created for AT-PZEVs based on an average 2001 credit value for these vehicles.
- During the 2005-2011 model year "transition period," the ZEV obligation would be reduced to one-half of the current level, allowing the remaining half to be met with AT-PZEVs or the placement of a hydrogen fuel infrastructure.
- For ZEVs, a 4-tier flat credit system would be created providing credits for neighborhood electric vehicles (NEVs, credit remains the same as in the 2001 program amendments), Type I ZEVs (50+ mile electric range), Type II ZEVs (120+ mile electric range), and Type III ZEVs (100+ mile range with fast refuel; e.g., hydrogen-fueled fuel cell vehicle). Credits for the Type



I, II, and III ZEVs would have high multipliers during the 2005-2011 "transition period" and asymptote to the final credit values in 2012.

At the workshop, only one OEM, Honda, provided oral comments to this ARB "straw man." In their comments, Honda indicated that even a 1% requirement for a pure ZEV is not viable given the current status of battery technology. Honda recommended that ARB should consider allowing manufacturers to use PZEVs and AT-PZEVs to cover all of the ZEV requirements. ARB indicated at this workshop that the staff plans to prepare a formal ZEV program modification proposal and issue a staff report by January 10, 2003 and target board approval for the ZEV program modifications at the February 27, 2003 Board Hearing.

### **36. OMB Dilutes EPA Air Benefits Analysis**

In September, the Environmental Protection Agency published a document that laid out economic and technical support for a new rule to cut pollution from engines in forklifts, electric generators, snowmobiles and all-terrain vehicles. It also contained an alternative analysis, which arrived at dramatically lower numbers for the benefits of the new rule. It did so mainly by lowering the value of a human life and suggesting that long-term exposure to fine particulates in the air would not be as significant as briefer exposures to them.

When EPA did its base calculations, it concluded that by 2030 some \$77 billion in benefits would come from reduced deaths and fewer cases of chronic bronchitis. The agency considered the estimate somewhat low, in fact, because it didn't take into account things you

can't put a price tag on, such as how many trips to the emergency room from asthma attacks are avoided and the worth of a beautiful vista that is preserved as a result of less pollution.

The alternative estimate came up with only \$8.8 billion in benefits. In its report, EPA characterized the number as a "more conservative estimate," that was arrived at by using different scientific studies that rely on short-term, rather than long-term, exposure to particulate matter and different ways of calculating the value of a life.

One big difference is that EPA used \$6.1 million as the value of a life in its base calculation; the alternative figure dropped that number to \$3.7 million per life, and less for people over 70 -- \$2.3 million.

The Office of Management and Budget's Office of Information and Regulatory Affairs, which reviews federal rulemakings, urged EPA to include the second set of calculations. According to press reports, John D. Graham, administrator of OIRA, defends the alternate analysis. "OMB persuaded EPA that it was more technically responsible to present both the base and alternate estimates" than just the base alone, he said.

"Together, the two estimates provide an indication of the scientific uncertainty about these difficult issues. If only one of the two estimates were presented, the regulator and the public would be given a false sense of precision about the science and economics."

OIRA played a similar role in the development of the Bush administration's Clear Skies Initiative, a pollution-abatement program introduced in Congress earlier this year. In that case, EPA economists said reductions in particulate matter and ozone would

result in 11,900 fewer deaths annually. The alternate prediction said it would be more like 7,200. Similarly, EPA set benefits of the legislative proposal at \$96 billion by 2020; the other projection was \$11 billion.

**37. Canada Signs Kyoto Ratification After Kyoto Sharp Debate**

Prime Minister Jean Chretien signed Canada's ratification of the Kyoto global warming accord, reflecting his determination to press ahead with the deal despite the U.S. decision to opt out of it. "With this signature, we are doing the right thing for Canada, for the global environment and for future generations," said Chretien, acknowledging it will require adjustments in Canada.

Environment Minister David Anderson said that Canada had become the 99th signatory of the protocol, which requires reductions in greenhouse gases blamed for global warming, but that it would not take effect until Russia ratifies it.

The agreement requires Canada to reduce its emissions of greenhouse gases, blamed for global warming, by 6 percent below 1990 levels by 2012. That will require a major shift, since emissions are now roughly one-fifth above 1990 levels.

The Canadian government has provided a loose plan for achieving about three-quarters of its cuts, but is hoping to get credit for the remaining quarter by selling cleaner energy such as natural gas to the United States and elsewhere. However, Europe has flatly rejected that idea.

**38. Green Groups Sue US EPA Over Global Warming**

Three environmental groups sued the Environmental Protection Agency in a bid to force it to combat global warming by limiting air pollution from U.S. automobiles. The groups - the International Center for Technology Assessment, Sierra Club and Greenpeace - said they filed suit in U.S. district court because EPA was dawdling over their 1999 petition, which said the EPA must use the Clean Air Act against "greenhouse" gases from cars. They asked a judge to order EPA to respond to the petition within 60 days.

The three groups petitioned EPA on Oct. 20, 1999, to reduce carbon dioxide and greenhouse gas emissions from motor vehicles. EPA accepted comments on the petition from January-May 23, 2001. The lawsuit said there has been no action since, although federal agencies are required to decide matters "within a reasonable time."

**39. Survey Finds Honda Least-Polluting Automaker In US**

Honda produces the least-polluting vehicle fleet in the U.S. market, while DaimlerChrysler is at the bottom of the list of automakers selling environmentally friendly cars, according to a survey from the Union of Concerned Scientists. The UCS survey analyzed the environmental performance of the six largest automakers in the U.S. market. Together, they sell nine of every 10 vehicles in the United States.

Toyota, Nissan, Ford, General Motors and DaimlerChrysler followed Honda. Ford was the only vehicle manufacturer to move up in the UCS survey. The group said Ford's environmental progress was due to company Chairman William Clay Ford Jr.

"Ford deserves credit for going beyond

federal requirements to clean up smog-forming emissions from its trucks," said Jason Mark, who oversaw the UCS survey. "Bill Ford has touted his green thumb, but until now only his speeches have merited a thumbs up," he said.

The UCS said Ford was on track to meet its pledge to boost the fuel economy of its sport utility vehicles by 25 percent from model year 2000 to 2005, but Ford's SUV gains were offset by fuel economy declines in the firm's other vehicles. The group noted that when Ford made its commitment to increase SUV fuel economy by 25 percent, GM vowed to retain its lead in overall truck fuel economy. GM now trails Ford by just 0.1 mile per gallon, the group said.

In its survey, UCS looked at the two main environmental problems related to vehicles - smog-forming pollution and carbon dioxide emissions that are linked to global warming. Vehicles sold by the six largest automakers account for 93 percent of all smog-forming pollution and 92 percent of all carbon dioxide emissions.

Other key findings from the UCS survey:

\* Toyota is the only automaker to cut its fleet average of CO2 emissions from model year 2000 to 2001.

\* Honda's lead in the rankings slipped as new tailpipe standards forced competitors to catch up on reducing smog-forming emissions.

\* Nissan's most popular cars and trucks are consistently among the least fuel-efficient vehicles in many size classes.

\* DaimlerChrysler's CO2 emissions rose more than other automaker's from 2000 to 2001, even though it was the only firm to reduce its reliance on truck sales.

#### **40. Senator Jeffords Blasts Bush On Environment**

The chairman of the Senate environment panel criticized President Bush for moving backward on the environment, saying he is putting special interests above clean air, clean water and public health. Vermont independent Sen. James Jeffords, who will give up the gavel of the Senate Environment and Public Works Committee when Republicans take over the Senate in January, said Bush is rolling back protections for clean air and water, cutting Superfund site cleanups and clearing new oil and gas drilling on national lands.

"Unfortunately, on environmental issues our president is moving us backward instead of leading us forward," Jeffords said, delivering the weekly radio address on behalf of Democrats.

Jeffords also said provisions in the new law creating a Homeland Security Department will make it harder for people to learn of dangerous chemicals near their homes. Bush policies allowing power plants to avoid installing simple anti-pollution equipment when they modernize will lead to so many extra premature deaths from plant pollution that it would be like enduring the equivalent of a "Pearl Harbor every 30 days," Jeffords said.

Bush's "departure from the Clean Air Act will prolong the life of out-of-date power plants belching out pollution, not only contributing to growing rates of childhood asthma, but also to the unsightly haze that taints the beauty of our magnificent parks and scenic vistas," Jeffords said.

Jeffords said the environment had not always been a partisan issue, and he noted that he had worked with Bush's

father, former President George Bush, to toughen clean air legislation.

#### **41. White House Further Weakens The Unweakenable**

White House officials have signed off on raising federal fuel economy standards for light trucks and sport utility vehicles, but have decided to give automakers additional time to meet those standards by easing the phase-in schedule recommended by federal transportation officials. Officials at the White House Office of Management and Budget (OMB) decided to keep in place a recommendation from the National Highway Transportation Safety Administration (NHTSA) that the federal corporate average fuel economy (CAFE) standards for light trucks and sport utility vehicles be increased by 1.5 miles per gallon in model year 2007. The current CAFE standard for light trucks and SUVs is 20.7 miles per gallon.

However, OMB officials decided to more gradually phase in the new requirement in the model year 2005, the first year of the increases. Instead of increasing by 0.5 miles per gallon in each of those three model years, automakers would increase fuel economy by 0.3 miles per gallon in model year 2005, and then by 0.6 miles per gallon in model years 2006 and 2007, sources say.

#### **42. Ford In Deal To Sell Electric Car Unit**

Ford Motor Co. said it had agreed to sell its Think electric vehicle division to global electronics and engineering firm KamKorp after its move earlier this year to dump the unit due to poor demand. The world's second largest car maker paid \$23 million in 1999 for the Norway-based electric vehicle company Pivco Industries, renaming it Think or THINK.

It has invested \$100 million in the technology but like most of its rivals it has switched to the development of vehicles powered by hydrogen fuel cells.

In August Ford said it was pulling the plug on the Think program after disappointing sales and lack of government support for electric vehicle programs reduced its mass market viability. Ford's abandonment of its electric car program comes as part of restructuring and cost cutting at the auto giant, which is trying to recover from a \$5.4 billion loss last year.

Singapore-based KamKorp has a significant stake in electric vehicles and is expected to continue developing electric cars. Ford pulled the plug on Think just as it had finished developing a new model.

Think has produced more than 1,000 of its two-seater City hatchbacks, which have a range of about 53 miles (85 km) in city driving and require up to six hours for a recharge. The Think Neighbor, a golf cart-like vehicle with a top speed of about 25 miles (40 km) per hour, started production at a Ford plant in Detroit in the fall of last year.

### **ASIA-PACIFIC**

#### **43. Japan's Carmakers Exempted In Pollution Case**

The Tokyo District Court has ruled that seven automobile manufacturers among the defendants in a lawsuit over pollution caused by vehicle emissions should not be held responsible for health problems suffered by residents close to arterial roads in the capital. However, the court held the other defendants in the suit--the central government, the Tokyo metropolitan government and Metropolitan Expressway Public Corporation--liable

for the pollution-caused health problems of some of the plaintiffs.

Toshifumi Takahashi, the judge in the closely watched court battle over exhaust emissions, ordered the central and Tokyo governments and the public corporation to pay a combined 79.2 million yen to seven of the 99 plaintiffs in compensation for their bronchial asthma and other health problems caused by air pollution. One of the seven to receive compensation was a plaintiff whose health problem had not been recognized by the government as air pollution-related according to the law on compensation for health damage from environmental pollution.

The ruling rejected an injunction sought by the plaintiffs against motor vehicle emissions, particularly diesel exhaust emissions, of two pollutants--suspended particulate matter (SPM) and nitrogen dioxide (NO<sub>2</sub>).

The Tokyo motor vehicle exhaust emission suit was filed in May 1996 by 99 people, all of who lived near major highways and expressways in Tokyo's 23 wards. Claiming their health problems were due to air contamination caused by harmful exhaust fumes, the plaintiffs demanded the defendants, including the seven automobile manufacturers, pay a total of about 2.2 billion yen in damages. They also sought a court injunction to ban SPM, NO<sub>2</sub> and other harmful exhaust emissions.

The judge said the pollution in question could not be considered serious enough to necessitate a ban on discharging the pollutants in question over an extensive area in the capital.

Environmental conservation analysts said the court's decision was a step backward compared with similar lawsuits in Amagasaki, Hyogo

Prefecture, and southern Nagoya, where courts laid injunctions on local governments and other defendants to take steps to lower levels of exhaust emissions.

Judge Takahashi said in the ruling that the central and Tokyo governments and the Tokyo expressway public corporation were responsible for "causing some of the plaintiffs to suffer from bronchial asthma and other possibly fatal maladies because of exhaust emissions discharged continuously and in large volumes."

Seven of the 99 plaintiffs were ruled eligible for compensation in the court decision. The judge said those seven lived within 50 meters of national highways, expressways and other trunk roads in Tokyo where daytime motor vehicle traffic exceeds 40,000. For this reason, the judge said they were considered subject to health hazards attributable to exhaust emissions. In recognizing only those plaintiffs living within 50 meters of the road as eligible for compensation for health problems caused by air pollution, the court decision rejected the plaintiffs' argument that air pollution caused by exhaust emissions was affecting extensive areas in and around the heart of Tokyo.

Issues in contention in the Tokyo air pollution suit included:

- How to judge extensive air pollution due to exhaust fumes in Tokyo in terms of statutory responsibility.
- Whether the national and municipal governments should be held statutorily responsible for failing to exercise their administrative powers to regulate exhaust emissions.
- Whether automobile manufacturers should be blamed for failing to develop and implement sufficient measures to lower exhaust emissions.

Attention was focused especially on the

alleged responsibility of the seven automobile companies that produce diesel-powered motor vehicles: Toyota Motor Corp., Nissan Motor Co., Nissan Diesel Motor Co., Mitsubishi Motors Co., Hino Motors Ltd., Isuzu Motors Ltd. and Mazda Motor Corp.

The court ruled that emissions from diesel-powered vehicles and other motor vehicles should be considered connected to outbreaks of asthma and other health problems among residents close to arterial roads where large motor vehicles account for "significantly high percentages" of traffic.

Six years and five months have passed since 99 plaintiffs originally filed the lawsuit. Fourteen are dead. The remaining plaintiffs and supporters have carried on with the struggle and are determined not to end the legal battle until the higher courts rule that automakers have a responsibility for the bad health effects of vehicle emissions.

The Japanese government and the Metropolitan Expressway Public Corp. have appealed to the Tokyo High Court. A group of Tokyo residents who filed the suit also are preparing to appeal the case. Tokyo Gov. Shintaro Ishihara said the municipal government will not file an appeal, according to a municipal government spokesman.

The Ministry of Environment said that the relationship between asthma suffered by the plaintiffs and air pollution has not been scientifically established, and thus the state cannot accept the Oct. 29 Tokyo District Court ruling that ordered the state to pay ¥79.2 million (\$688,000) in damages. The lower court said there is a causal relationship between asthma and air pollution.

The group of plaintiffs also is preparing to appeal the lower court ruling to the Tokyo High Court on grounds that the

victims were not satisfied with the damages and that the seven automakers the plaintiffs had sued were waived of responsibility.

#### **44. Former Bangkok Governor Urges Court To Deal With Polluters**

Former Bangkok governor Bhichit Rattakul has asked the Administrative Court to take the city bus agency and the Pollution Control Department to task for failing to control air pollution. He singled out buses run by the Bangkok Mass Transit Authority and its concessionaires, which he said had been allowed to emit toxic fumes for decades.

"These vehicles must be regarded as criminals because they emit black and white fumes that are harmful to the health of everyone," said Mr. Bhichit, now director of the Foundation for Anti-Air Pollution and Environmental Protection.

"The state agencies that are duty-bound and empowered to control them have failed to solve the problem and prevent them from belching out toxic fumes in our faces every day." He said 39.6% of Bangkok residents were found to have respiratory illnesses and allergies as a result of exposure to the toxic air, thanks to the negligence of the two agencies in enforcing the air quality standard.

In his lawsuit, Mr. Bhichit cited articles 56 and 62 of the constitution which provides for the right of people to take part in managing and conserving natural resources and the environment, and to take legal action to force responsible agencies to enforce the law.

Several meetings took place between the Transport Ministry and

concessionaires last month to lay down new regulations to keep black fumes from city buses under control. The new regulations, to take effect from Nov 15, would include warnings, taking offending buses off the streets, and revoking concessions. The regulations would cover concessioned buses as well as passenger vans, together with about 80% of mass-transit vehicles in the capital. Contracts signed with new operators would also be more comprehensive to make sure their operations would be of higher quality and more responsible, and to pressure the existing concessionaires to improve their services.

#### **45. Indian Government Plans 10% Ethanol Blended Petrol**

Indian petrol will be blended with 10-per cent ethanol in about two years in order to reduce the country's dependence on imported crude oil, Oil Minister Ram Naik has announced. From January, it will be compulsory for petrol stations to sell petrol with five per cent ethanol in nine states, which consume 60 per cent of oil products sold in India.

In October 2003, the five-per cent blend would be made compulsory in the rest of the country, and then the ethanol content would be doubled after another year or so, he said.

The introduction of ethanol-blended petrol in nine states in January will require 320 million liters of ethanol a year, which is about 25 per cent of the country's capacity.

To sell the 10-per cent ethanol blend, the sugar industry would have to set up facilities to produce one billion liters of ethanol from various sources apart from molasses and sugarcane juice, Naik said.

India imports 70 per cent of its crude oil requirement.

#### **46. Philippine Congress Drops Bid To Postpone Fuel Standards Implementation**

Efforts to postpone to December 2004 the implementation of gasoline fuel standards specified by the Clean Air Act of 1999 have lost steam in Congress. That means that beginning in January, strict standards for reducing the aromatics and benzene contents of gasoline will be enforced.

In a forum hosted by the Department of Environment and Natural Resources (DENR) on Nov. 15, environmentalists told the media that Speaker Jose de Venecia has promised them that House Joint Resolution No. 21 calling for the deferment of Section 26(a), Chapter 3 of the Clean Air Act (CAA) to December 2004 will no longer be discussed in the House of Representatives. The provision specifies that by next year, unleaded gasoline should contain not more than 35 percent of aromatics and two percent of benzene. Currently the aromatics content of local gasoline is 45 percent and benzene, four percent.

Controversy began to shroud the Clean Air Act last Oct. 18, when Joint Resolution 21 reached the Bills and Index Section of the House calling for the deferment of the implementation of Section 26(a), Chapter 3 of Republic Act No. 8749 from January 2003 to December 2004. The joint resolution listed the following reasons for deferment:

- Oil companies need time to retrofit their refineries.
- The world economic slowdown resulting from the

currency crisis has made it difficult for oil companies to set aside funds for retrofitting.

- The quality of gasoline demanded by Clean Air Act in 2003 is not traded in Asia and will have to be produced specifically by the importer, resulting in higher cost.
- Among Asian countries, only Thailand and South Korea will by 2004 have equal or more stringent gasoline specifications from which local companies can source.
- Oil companies shall be importing the bulk of their gasoline requirements to comply with Clean Air Act, resulting in increases in pump prices by 80 centavos to P1.50 per liter.
- It would mean the closure of oil refineries, causing unemployment and putting at risk the country's oil security.
- The likelihood of war in Iraq is exerting pressure on oil prices.

#### **47. Toyota Announces Availability of Fuel-Cell Powered Bus**

Toyota and its truck manufacturing subsidiary, Hino Motor Co., Oct. 18 began public road tests of the FCHV-BUS2, the first commercial fuel cell vehicles ever launched in Japan. The Ministry of Land, Infrastructure, and Transport issued license plates for four of the buses in September, Toyota officials said Oct. 25. The Toyota-Hino project is partially financed with government R&D spending, the officials said.

The bus has a passenger capacity of 60 people and can drive about 250 kilometers (155 miles) on a tank of hydrogen at the maximum speed of 80 kilometers per hour (about 50 miles per hour), Makoto Arimoto, Toyota's project general manager for the bus, said at an Oct. 18 media preview.

#### **48. Japan Considers Plan to Require Devices To Capture Vapors During Vehicle Refueling**

The Ministry of Environment within the next two years plans to propose legislation requiring installation of vapor recovery systems on motor vehicles and fuel pump nozzles to substantially reduce the discharge of smog-causing gases, ministry officials said Nov. 8.

The U.S. government already requires the installation of such systems--which are used to recover vapors that escape during the refueling process--in cars, and some European Union member countries require their installation on pump nozzles.

In fact, all Japanese cars sold in the United States are equipped with the onboard refueling vapor recovery (ORVR) system.

The amount of gasoline vapors released at the pump in Japan is 4 grams to 5 grams per gallon on average. The proposal under consideration by the Environment Ministry should reduce those vapor releases to just 0.1 percent of the current average.

#### **49. Japan to Collect First Carbon Tax in October 2003**

The Japanese Ministry of Economy, Trade, and Industry has secured an



agreement to start collecting a "coal tax" beginning in October 2003, METI officials said Nov. 1. In what amounts to Japan's first carbon tax, the rate will be about ¥700 (\$5.72) per metric ton, with revenues estimated at about ¥60 billion (\$490.4 million), the officials said. METI also would raise to at least ¥1,100 (\$9) from the present ¥720 (\$5.89) per ton the energy tax charged on liquefied natural gas, and raise to a minimum of ¥1,200 (\$9.81) from ¥670 (\$5.48) per ton the tax on liquefied petroleum gas, they said. The tax measures, while tentative, are part of METI's overhaul of the government Special Energy Account, a special purpose account managed by METI. Tax proceeds from the account are used for the development of clean energies and energy-related infrastructure, as well as for mitigating global warming.

#### **50. China Passes Comprehensive Environmental Impact Assessment (EIA) Law**

China's legislature has passed the country's first environmental impact assessment (EIA) law in a move that will mandate environmental audits for construction and infrastructure projects as well as government development plans.

Analysts said the law was an important addition to China's environmental regulatory framework, but they added that it was far weaker than it could have been and omitted some stronger provisions contained in earlier drafts due to opposition from within the government.

China already requires EIA reports for major construction projects under provisions contained in the country's 1989 Environmental Protection Law that were later elaborated in government circulars, in particular the Administrative

Regulations on Environmental Protection for Construction Projects (1998). But standing requirements lack a firm legal footing and are limited in scope. The Environmental Impact Assessment Law (EIA law) outlines far more comprehensive EIA requirements, and will serve as the basis for further rules elaborating when EIA reports are required and how assessments should be conducted.

China's State Environmental Protection Administration (SEPA) first circulated drafts of the EIA law in 1998, but the law was only passed through the Standing Committee of China's National People's Congress Oct. 28. There will be a significant delay, however, before the law is due to go into effect Sept. 1, 2003. This is intended to allow time for government agencies to prepare and for authorities to issue the detailed implementation regulations.

There are two major improvements to standing environmental regulations contained in the law: requirements for "strategic" EIA reports for government policies affecting development and adding the concept of public review. Under the new law, EIA studies will have to be conducted prior to establishing new business or industrial zones, or developing natural resources in a way that will significantly affect the environment. In addition, EIA reports will have to be made public, except where other government laws require an exception.

The actual extent of many of the requirements and potential gaps will only be clear when the law's accompanying implementation regulations are issued.

General requirements contained in the law for EIA studies and reports are similar to, but elaborate on, those already called for in standing SEPA

procedures for construction projects. They also add to the punishments and fines for violations. The new law also requires that all EIA reports be reviewed first by independent, certified, environmental experts, chosen randomly from an approved list. In addition, the law stipulates that the government agency responsible for EIA applications should not collect fees.

### **51. Philippines to Fuel Public Vehicles With CNG**

President Gloria Arroyo has launched a program to use compressed natural gas (CNG) to fuel public transport vehicles instead of gasoline or diesel in order to combat air pollution in the Philippines, officials said Oct. 26. As part of the program, Energy Secretary Vicente Perez said his department has created an "alternative fuels technology division" whose main task is to focus on clean fuels for use by mass transport, such as CNG, liquefied petroleum gas (LPG), and a locally produced diesel blend using coconut oil that is still under development.

The plan calls for a pilot project to be launched in 2003, which would give a bus company a franchise to operate a fleet of 100 vehicles fully powered by CNG from the Malampaya gas field off the coast of the western island of Palawan. The CNG will be priced at half that charged for diesel at the pump. Initially, the fleet will operate the route from metropolitan Manila to the nearby suburban areas in Batangas south of the capital and Bicol to the east, the energy department said.

The Malampaya gas project, built over three years at a cost of \$5 billion, was undertaken by a consortium led by the Shell Philippines Exploration BV and involved the construction of a 504-kilometer (312-mile) sub sea pipeline to

transport natural gas from the Malampaya field to a treatment facility in Batangas province. The gas field now supplies about 18 percent of the country's power requirements.

## **52. Developments in China**

### **A. New Vehicle Standards**

Over 19 manufacturers with about 300 models have been approved for a tax reduction because they comply with Euro 2 standards. The Tax authority has paid out over 3 billion RMB. Many cars actually comply with Euro 3 standards (in the laboratory using low sulfur fuel). SEPA is looking to tighten the conditions for getting the tax; they will likely add a noise component.

SEPA is also holding discussions with the tax authorities to introduce a tax reduction for "clean" fuels. The tax authorities seem very receptive.

SEPA is also planning to tighten standards for heavy duty gasoline fueled trucks, and motorcycles and mopeds.

### **B. In Use Vehicles**

It appears that the I/M guidance will be released soon, probably late January or February. Major focus is on 2 stage idle, ASM and IM240. Issues remaining include the use of lambda testing and the potential for VMass.

### **C. Fuels**

The major short-term focus in addition to

the tax incentive scheme mentioned above is to require the use of detergent additives. They are considering a fuel additives registration program similar to that of the US EPA.

#### **D. Future Efforts**

The major focus will be on initiating COP testing and introducing Euro 3 or Euro 4 standards (Beijing wants to do so in 2005 and nationally SEPA is looking at 2008). SEPA seems to want Beijing to focus on the existing fleet rather than on tightening new vehicle standards. SEPA's concern is that even if Sinopec agrees to provide low sulfur fuel in Beijing, vehicles will drive out of the city and be damaged with high sulfur fuel. It was suggested that if the tax incentive scheme can assure widespread availability of low sulfur fuel, the problem could be eliminated.

#### **53. China's Vehicle Market Exploded During 2002**

Production and sales of motor vehicles in China are expected to reach over 3 million units and those of passenger cars over 1 million units during 2002. Another 3 million units of farm trucks and 12 million motorcycles are also expected to be produced. The exploding expansion of China's motor vehicle market can best be described by the number of years it took for China to reach the 1 million, 2 million and 3 million mark in annual sales: 36, 7 and 2 years, respectively. There is every possibility that by the year 2020, China will become the world's largest auto manufacturer.

Beijing's private automobile ownership reached 624,081 units at the end of 2001, the largest in the country, according to statistics recently released

by the State Statistical Bureau. Based on a survey of China's top 10 cities with the largest number of privately owned automobiles, Beijing has nearly 400,000 units more than the second place holder, Guangzhou (235,456). In decreasing order, the other eight cities were Chengdu (233,119), Tianjin (232,086), Shenzhen (144,597), Shanghai (87,168), Chongqing (82,410), Shenyang (67,593), Hangzhou (58,587) and Nanjing (39,119).

Beijing's private automobile parc may surpass 800,000 units this year, according to the city's statistical bureau.

The lowest and average bidding price for a private license plate in Shanghai reached all time highs of ¥30,800 and ¥31,721, respectively, in November, up ¥4,400 and ¥4,681 from those in October. A total of 3,200 units of license plates were auctioned off in November.

#### **54. South Korea Upholds Tough Diesel Car Standards**

In a statement issued Nov. 20, the Ministry of Environment said that despite demands from the South Korean and European car industries, it would not ease its clean air policy to create a domestic market for sedans equipped with diesel engines. "The existing policy priority on improving urban air quality will not change," Ko Yun-hwa, director general of the Air Quality Management Bureau, said in the statement. The Environment Ministry's plan to improve air quality in cities, particularly the capital city of Seoul and its surrounding areas, will not succeed without a ban on diesel cars, he said.

South Korean emission standards for diesel-powered cars--outside the categories of trucks, buses, vans, and sport utility vehicles--have been set since October 2000 at a level that is

tougher than the Euro-IV diesel exhaust emission standards scheduled for EU-wide implementation from 2005. Euro IV limits on carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter, as measured in grams per kilometer, are 0.5, 0.05, 0.25 and 0.025 grams per kilometer, respectively, compared with the current South Korean content limits on diesel car exhaust at 0.5, 0.01, 0.02, and 0.01 g/km.

The ministry also is stepping up emissions regulation for diesel trucks, buses, vans, and sport utility vehicles. The emissions standards for vehicles equipped with diesel engines were increased in July 2002 to a level equivalent to the current Euro III standards practiced in the European Union: 0.65 grams per kilometer for carbon monoxide, 0.56 g/km for hydrocarbons, 0.5 g/km for nitrogen oxides, and 0.05 g/km for particulate matter. The Euro IV standard limits carbon monoxide emissions to 1 gram per kilometer driven per passenger vehicles, and it also limits oxides of nitrogen to 3.5 g/km. The Euro V standard also limits carbon monoxide levels to 1 g/km, but the nitrogen oxides limit drops to 2 g/km.

A further toughening of the South Korean standards is planned under the proposed "Special Act on the Improvement of Air Quality in the Capital Region," which would introduce new caps on emissions from industrial sources and motor vehicles in the capital region from January 2004.

The ministry said that a combination of factors makes its approach to diesel exhaust regulation necessary in South Korea: a high density of motor vehicles in overpopulated cities, a low price of diesel fuel relative to gasoline, a low level of diesel engine technology, and unavailability of clean-burning diesel

fuel. "There will be no turning back on anti-diesel regulation until these problems are solved," Ko said.

### **55. Tokyo Government Unveils Plans For Curbing GHG Emissions**

The Tokyo metropolitan government unveiled details of an initiative requiring carbon dioxide reductions from large businesses and automobiles in the metropolitan area and promoting the use of renewable energy. Called the "Six Challenges," the program would require business offices and other large businesses to reduce CO2 emissions; greater energy efficiency in newly constructed buildings; promotion of energy conservation information to consumers; reduced CO2 emissions from automobiles; promotion of renewable energy use; and combating Tokyo's "heat island" conditions.

Tokyo Gov. Shintaro Ishihara has expressed frustration at Japan's slow progress in reducing greenhouse gas emissions and instructed the city to formulate its own GHG reduction program. "Instead of simply waiting for the state's policy to reinforce [GHG reduction] measures, it is necessary to take our own measures based on regional characteristics," the city's Bureau of Environment said in a program released Nov. 15. To that end, the city is preparing ordinances that would require stiffer CO2 reduction measures. The proposal criticized the Japanese government's GHG reduction measures as "insufficient," noting that they are based on voluntary efforts with no disclosure requirements.

The Environmental Bureau's proposed program emphasizes the need to combat global warming on two fronts: worldwide and citywide, with Tokyo's "heat island" conditions given special

emphasis. Over the past 100 years, the city's mean temperature rose 3 degrees Celsius, much faster than the temperature increase of the past 10,000 years.

Among other things, the "Six Challenges" program urged the city to consider introducing emissions trading and requiring developers to indicate the energy efficiency of buildings. It also calls for efforts to trim CO2 emissions from large area businesses and improve energy efficiency of buildings. To reduce CO2 emissions from homes, the program proposed requiring electric appliance manufacturers to indicate energy efficiency of products and to develop energy-saving products.

To reduce automobile CO2 emissions, the program urged the city to introduce a system that would require fleet owners to prepare an automobile environment management plan; implement "traffic demand management" policy to regulate the number of motor vehicles used in the city; and to propose raising energy efficiency of motor vehicles.

As part of its endeavor, Tokyo will start operating windmill power generators and building hydrogen supply stations to promote the use of fuel cell vehicles, the program said. It said the city would start using fuel cell vehicles on an experimental basis.

#### **56. Toyota, Honda Win Fuel Cell Certification, Leases From Japanese Ministries**

Japan's Ministry of Land, Infrastructure, and Transport has issued type certification for the fuel cell cars produced by Toyota and Honda.

Toyota said four units of its FCHV model soon will be leased to the Cabinet Secretariat; the Ministry of Economy,

Trade, and Industry; the Ministry of Land, Infrastructure, and Transport; and the Ministry of Environment. The lease cost is 1.2 million yen (about \$8,215) per month, the company said. Honda said it would lease one unit of its FCX fuel cell car to the Cabinet Secretariat, with a lease cost of 800,000 yen (about \$6,571) per month.

The Toyota FCHV, which is powered by pure hydrogen, seats five passengers and features a cruising distance of 300 kilometers (187.5 miles) and top speed of 155 km/h. The Honda FCX, which seats four passengers and is powered by compressed hydrogen gas, has a driving range of 355 kilometers (about 222 miles) and a top speed of 150 km/h.

Both automakers are preparing to sell the FC vehicles to more Japanese government offices and municipalities, as well as in California, officials of the two companies said.

Toyota and Honda are engaged in aggressive fuel cell car technology research and development, anticipating that worldwide regulations on vehicle emissions of carbon dioxide will be toughened in coming years in a bid to curb global warming.

### **GENERAL**

#### **57. 2002 Second Hottest As Global Warming Speeds - WMO**

This year has been the second warmest since 1860, extending a quarter-century pattern of accelerated global warming linked to greenhouse gas emissions, United Nations scientists have announced. The World Meteorological Organization (WMO), a United Nations agency, said that 1998 remained the hottest year on record, with 2002 surpassing last year as the next

warmest. The 10 warmest years had all occurred since 1987, nine since 1990.

"Clearly for the past 25 or 26 years, the warming is accelerating...The rate of increase is unprecedented in the last 1,000 years," Kenneth Davidson, director of WMO's world climate program told a news briefing.

A moderate El Nino system warming the tropical Pacific since mid-year was expected to last through April, according to WMO. While El Nino is smaller in magnitude than the 1997-98 event, which caused \$34 billion in damage, it has coincided with "climate anomalies" including droughts in Australia and southern Africa, as well as warmer conditions across Asia, it added.

WMO scientists were presenting a report on the status of the global climate in 2002, based on observations through November from a network of land-based weather stations, ships and buoys. Global surface temperatures have risen six-tenths of a degree Celsius since 1900, according to the Geneva-based body.

Davidson called greenhouses gases "the major influence affecting the climate". Hong Yan, WMO assistant secretary-general, went further: "If no very effective measures are taken for preventing further release of greenhouse gases, then the trend will continue."

The United States, the largest producer of greenhouse gases, has rejected the Kyoto treaty, which aims to cut emissions from developed countries by 2012 to 5.2 percent below 1990 levels.

The El Nino phenomenon, from the Spanish term for a boy child, is the warming of the central and eastern tropical Pacific, the world's largest ocean basin, every few years. It can

wreak havoc on weather patterns, but no two El Nino events are identical, scientists say. U.S. forecasters have predicted that El Nino would bring a milder winter to the northern half of the United States while pounding parts of the south and east with more storms.

Scorching temperatures and lack of rain caused severe drought over half the United States this past summer. A series of storms and an active hurricane season brought rain aplenty to the southern and eastern U.S., but about one-third of the country is still drought-stricken.

During 2002, scientists saw the greatest surface melt on the Greenland ice sheet in the 24 years that satellites have monitored the formation and a record low in Arctic sea ice in September.

NOAA cautioned that drought in the northern U.S. Rockies would worsen this winter, setting the stage for a repeat of the tinder-like conditions that burned an estimated 7 million acres (2.8 million hectares) of forest land last summer.



*Happy Holidays to All  
And  
Best Wishes For A Peaceful New  
Year*