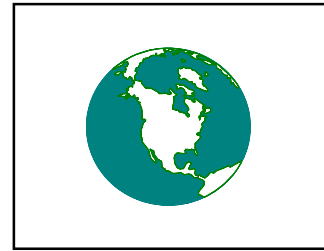


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# CAR LINES

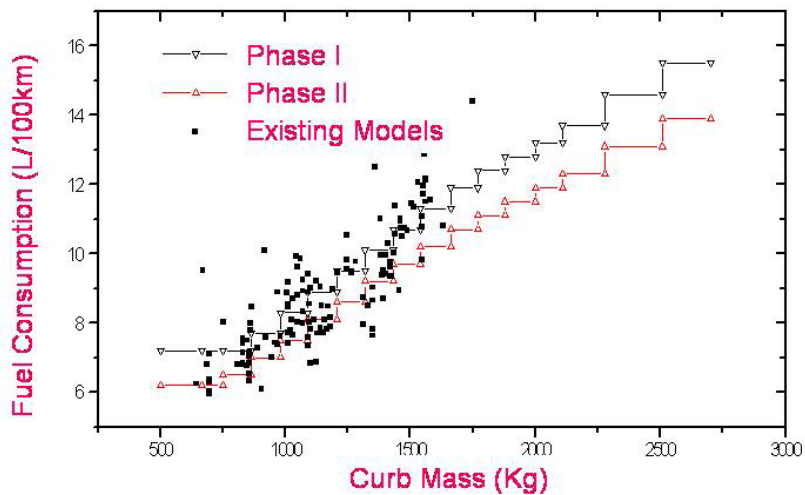
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Issue 2004 - 5

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## China Fuel Consumption Standards – MT Cars



Phase I will be effective in July 2005; Phase II in July 2008

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## EUROPE

### 1. Wallström Vows to Pursue A Green Agenda

Outgoing EU environment commissioner Margot Wallström has vowed to continue promoting environmentally sustainable policies when she becomes communications commissioner on 1 November.<sup>1</sup> The Swede's experience and seniority in the new Commission could make her an influential political ally to incoming EU environment commissioner Stavros Dimas.

"I firmly believe that sustainable development is the only way in which we can ensure continued human welfare and a fair distribution of our wealth," Ms Wallström said. "I can only promise that I will continue to stand for these principles with unchanged and, if possible, even stronger commitment." Ms Wallström was speaking at a conference on the EU's sustainable development strategy organized by environmental group EEB, and went on to present a personal assessment of progress to date. An official Commission review is due next summer.

She said that progress had been "unsatisfactory" in the fields of energy, transport, environment and health, and biodiversity. Particular sources of disappointment were sluggish promotion of renewable energy and a rise in CO2 transport emissions.

But faced with a recent critical review of the EU's sustainable development performance by the EEB, Ms Wallström defended the Commission's achievements in many other areas. Among these were the use of environmental impact assessments, reform of Europe's agricultural and fisheries policies, progress made towards meeting greenhouse gas commitments and the adoption of new chemicals laws.

### 2. Sweden Continues To Pursue Its Green Tax Shift

Sweden's government has published its budget proposal for 2005 re-confirming its "strategy for transforming Sweden into an ecologically sustainable society". The budget's key environmental feature is a continuation of the country's ambitious green tax shift program.

In 2005, the increase in environmental taxes will total about SKr 3.3 billion (€364m). Many of these will fall on road transport, including increases averaging SKr 340 and SKr 100 in vehicle taxes on petrol-driven and diesel-driven cars respectively.

Vehicle taxes on light trucks and light buses will rise by 40%. Petrol and diesel taxes will be up SKr 0.15 and 0.30 per liter respectively. Electricity tax will be SKr 0.012 per kilowatt-hour higher. The increases, "lessened by the lower diesel tax for agricultural and forestry use", will be offset by higher basic income tax deductions.

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<sup>1</sup> Note that the crisis over the Parliament's acceptance of the proposed slate of EU Commissioners has delayed her departure.

In a statement, the finance ministry noted that in 2000 the government had put at SKr 30 billion the scope for shifting taxes in the period 2001-2010. In budgets for 2001 and 2002 just over SKr 7 billion had already been shifted. In the term of office 2002-6 a total of SKr 12 billion will be shifted, it said.

### **3. Norway Wins Return of Think Electric Cars**

Ford Motor Corporation has agreed to return about 300 Think brand electric cars to Norway for resale instead of junking them in the USA. The earlier plan had drawn furious protests from Norway, where the model was initially developed.

Scandinavian shipping line Wallenius Wilhelmsen has agreed to transport the cars for free, Aftenposten newspaper reports. The Think project is reckoned to have cost Ford around US \$150 million (€ 123 million) since its take-over of the Norwegian manufacturer in 1999.

### **4. Swiss Government Predicts Decline in Automobile Emissions**

Pollution from motor vehicle emissions in Switzerland will continue to decline over the next 25 years despite a projected increase in number of vehicles on the road, according to a forecast issued by Switzerland's environment agency Sept. 3. The study by the Swiss Federal Office for Environment, Forests, and Landscape nevertheless warns that the projected decrease in emissions is less than earlier estimates, prompting the need to examine additional pollution-control measures.

Stricter emission norms for motor vehicles adopted since 1980 have had a positive impact on improving air quality and will continue to do so through 2030, the environment agency said. However, "supplementary measures are necessary for sustained improvements."

Switzerland's policy for improving air quality "must be pursued with determination," the agency added. "In particular, this means using more advanced technologies and introducing stricter norms for nitrogen oxide (NOx) and particulates."

The agency said one reason for the smaller than anticipated decrease in polluting emissions is the projected increase in truck traffic despite the Swiss government's efforts to encourage trucks crossing through Switzerland to be put on rail cars through the use of road tolls and quotas on truck traffic.

Under various scenarios, the amount of goods transiting Switzerland by rail is projected to increase from between 47 percent and 112 percent as a result of this policy. However, goods transiting by road will also increase between 22 percent and 56 percent. Trucks are a leading source of NOx emissions.

As a result, NOx emissions, which were projected to fall below 8,000 metric tons per year by 2013 under a 2000 projection from the agency, will not decline to this level until 2018. Current emissions of NOx from motor vehicles are around 20,000 metric tons per year.

However, a more important reason for the smaller decline in emissions is the growing popularity of diesel cars, which emit carcinogenic particulates. The agency noted that, for now, particulate filters are not obligatory for diesel cars.

As a result, the agency's 2000 projection that particulate emissions from diesel cars will level off at 125 metric tons per year by 2015 was revised upwards, with the agency now projecting emissions to increase to almost 500 metric tons by 2030.

## **5. Italy, China Sign Deal for Environmental Projects**

On September 7<sup>th</sup>, Italy signed a bilateral agreement to promote projects in China ahead of the World Expo Shanghai 2010. The agreement is the latest of seven bilateral environmental accords signed by Italy so far this year, and it continues a three-year history of environmental cooperation between Italy and China. The agreement was signed by Corrado Clini, director general of Italy's Environment Ministry, and Xu Zuxin, the head of the Shanghai Environmental Protection Agency. According to a statement from the Italian government, the initiative has five main points: planning and developing an environmental monitoring system in Shanghai; planning and developing a low-impact transportation system for Shanghai; promoting energy efficiency for Shanghai-based industries; promoting the use of Italian technologies to develop environmentally friendly agricultural programs in the Shanghai area; and the development of training programs for environmental officials in Shanghai. According to an Italian Environment Ministry official, the plan will start with \$1 million in seed money from the Italian government, which will be added to later with funds from Italy, the European Union, the World Bank, and the Global Environment Facility.

## **6. Blair Calls on Wealthy Nations to Lead on Greenhouse Gases**

On September 14<sup>th</sup>, U.K. Prime Minister Tony Blair called on wealthy nations to take the lead in addressing global warming, an issue he called the world's greatest environmental challenge. In a speech Blair said the issue would take center stage during the U.K.'s presidency of the Group of Eight industrialized countries (G-8) in 2005. Noting that global warming could become "irreversible in its destructive power," he spelled out three targets for 2005:

- reaching agreement among the G-8 on what causes climate change and the threat it poses;
- agreeing on scientific and technological measures to tackle it; and
- persuading countries beyond the G-8, notably China and India, to cut greenhouse gases.

"Such agreement will be a major advance but I believe it is achievable," he said in the speech to the Prince of Wales' Business and the Environment charity.

"Short of international action commonly agreed and commonly followed through, it is hard even for a large country to make a difference on its own," he said. "But there is no doubt that the time to act is now."

"It is now that timely action can avert disaster," he said. "It is now that with foresight and will such action can be taken without disturbing the essence of our way of life, by adjusting behavior, not altering it entirely."

Blair's speech followed a similar one from opposition Conservative leader Michael Howard on Sept. 13 in which Howard noted that the prime minister's inability to force a change in policy by the United States on climate change was a sign of his lack of influence with the Bush administration.

## **7. Swiss Postpone Road Noise Reduction Targets**

On September 1<sup>st</sup>, Switzerland announced it was extending a deadline for meeting its targets for reducing noise from road traffic. A new amendment to a federal ordinance on noise pollution will give national and local authorities until 2015 to install noise-reduction barriers along highways and until 2018 to install similar barriers along other major roads. The barriers were originally due to be in place by March 2002, under the 1986 federal ordinance. However, only around 30 percent of the roads targeted for remedial measures had barriers installed by that date. A statement from the Swiss Federal Office for Environment, Forests, and Landscape said the delay was due to financial difficulties encountered by both federal and cantonal authorities. Some 1,600 kilometers (1,000 miles) of roads have been targeted for remedial action. The Swiss government has estimated the total cost of installing the necessary noise reduction measures at 2.2 billion Swiss francs (\$1.75 billion). The Swiss government warned that failure by cantonal authorities to meet the new deadline would lead to the withdrawal of federal subsidies to help meet their noise reduction obligations.

## **8. Wallström Decries U.S. Move to Protect Airlines; Succeeds at ICAO**

### **A. Wallström's Concerns**

On September 13<sup>th</sup>, European Union Environment Commissioner Margot Wallström voiced concern over efforts by the United States to secure an international agreement to exempt airlines from emission levies or fuel taxes. Wallström told the European Parliament that the U.S. idea of discarding fiscal options would be "clearly contrary" to European environmental objectives. "For many years, the ICAO has been looking at market-based options designed to limit aviation emissions and introduce the aircraft and operating practices that are best environmentally," Wallström said.

"The ICAO has been looking at three options: taxes on fuel or emissions, emission charges, and emissions trading. Unfortunately, under pressure from the United States, the [ICAO] Council has decided to propose a resolution which recommends that the ICAO only pursue emissions trading and, therefore, disregard the other options," the commissioner said. "Since there is no certainty at present that any one measure will suffice, disregarding any option that might help limit the impact of aviation on climate change at this stage is not desirable," she said.

Wallström predicted that many third world countries would support the resolution, forcing the EU to seek an opt-out from any such agreement by entering a formal reservation.

The commissioner insisted, "The EU must make the most appropriate use of all economic instruments for achieving sustainability in the aviation sector, as it does in other sectors," she said. "This means pressing to keep all options--taxation, emissions charging, and emissions trading--open."

She reported that the Commission, the EU's executive arm, and EU state governments are working on counterproposals to be presented in Montreal. The United Kingdom is taking the lead in the EU discussions, she said.

Whatever the outcome of the Montreal discussions, Wallström confirmed that the European Commission intends to "study the technical feasibility of introducing aviation emissions trading schemes into a general scheme and will look at different solutions in this area. The conclusions are expected in nine months, on the basis of which the Commission intends to propose measures."

Wallström reiterated her earlier warnings of the "significant" environmental impact of rapidly increasing emissions from civil aviation given that the world passenger aircraft fleet is expected to double by 2020 to roughly 25,000 aircraft.

#### B. EU Fends Off the Threat

At the ICAO Meeting, the EU successfully warded off the threat. A resolution agreed by the International civil aviation organization (ICAO) allows Europe to continue developing kerosene taxes, emission charges and aviation emission trading.

British transport minister Alistair Darling hailed "a very successful result in the face of a very difficult situation" at the end of ICAO's triennial assembly in Montreal. "Attempts to restrict freedom of action...have been averted," he said.

ICAO had met to define a global position on the use of economic instruments for environmental ends after several years of study. Under pressure from the United States and others, earlier drafts of the resolution had excluded all but emissions trading as legitimate instruments. This led to fierce EU protests.

After much hard negotiation the final text still allows all three, but with some conditions. The main dispute was over the future of en-route distance charging of emissions. Here a final decision was deferred until ICAO's next assembly in 2007.

In the meantime the EU must refrain from introducing any charge that would apply to all air carriers operating in EU airspace. Crucially, however, the EU can continue preparatory work pending a final ICAO decision. European Commission officials say any EU scheme would not in any case be ready start before 2007.

On kerosene taxes the situation is unchanged; despite general ICAO disapproval of taxes the EU still has the power to impose levies on fuels used by its own carriers. Prospective transport commissioner Jacques Barrot last week suggested he favored the idea.



A similar picture emerged on emissions trading: ICAO is to work on guidance on applying the concept to aviation but EU moves to include the sector in its fledgling trading system are not ruled out. Mr. Darling said this was a "priority" that the UK would "pursue urgently" during its EU presidency next year.

## **9. EU Revises Transport Pricing Indicators**

The European environment agency (EEA) has revised the indicators it uses to monitor integration of environmental concerns into European transport pricing policies. The change affects indicators used in the transport and environment reporting mechanism (Term). It comes as transport pricing moves up the EU political agenda: ministers are discussing European Commission plans for a new road pricing regime while the Commission itself is developing a greener vehicle taxation system.

The current Dutch presidency has made sustainable mobility one of its priorities.

## **10. Italy Plans to Cut Gas Tax by One-Third**

On August 23<sup>rd</sup>, the Italian Treasury announced it is preparing a plan to temporarily reduce taxes on gasoline and other petroleum-based fuels by about one-third, sparking protests from environmental organizations saying the lower taxes will negate carbon taxes designed to discourage use of high-polluting fuels. In a prepared statement, the Italian Treasury said it would cut gasoline taxes but that details about the plan are still being worked out. The treasury plans to lower taxes temporarily as a way to ease the blow of rising oil prices.

Although the temporary tax break would reduce fuel taxes by around a third, it would only lower the overall price of gasoline by about 5 percent. The lower taxes would remain in effect as long as the official price of crude oil remains above a target price. Although the statement did not mention a specific price target, local media have reported that the tax level would remain in effect as long as oil prices were above the \$37 to \$40 per barrel range.

Trade unions representing taxi drivers and long-haul truck drivers, who are prohibited by law from raising their rates even when expenses rise, have been pressuring the government to roll back some of what are among Europe's highest fuel taxes to lessen the blow of high oil prices.

This is the second time this summer that the government has entertained the possibility of rolling back an environmental measure because of temporary conditions. In June, the Ministry of Environment approved a plan that would relax environmental standards for Italian power companies to allow them to boost output in cases of high demand to prevent blackouts. So far, that authority has not been used by utility companies.

Although details regarding the petroleum fuel tax initiative have not yet been finalized, the treasury has time to work out the details. No tax-related measure can go into effect

without parliamentary approval, and the Italian Parliament was on its summer break until Sept. 6.

The plan is not only controversial from an environmental perspective. Economists also warn that any measure that would significantly reduce the estimated [Euros] 1.4 billion (around \$1.7 billion) a month from fuel taxes could endanger Italy's plans to stay under the EU-mandated debt cap of 3 percent of the country's gross domestic product. Even without the gasoline tax reduction, Italy is expected to have difficulty staying under the cap.

### **11. Focus On Fuel in Danish Environment Budget**

Denmark's Dkr 456 billion (€61 billion) national budget for 2005 includes Dkr 540 million in tax cuts of 4 øre and 2 øre per liter respectively for sulfur-free petrol and diesel. Pollution from petrol should be cut 10% and diesel particulates 5%, the environment ministry said. Dkr 200 million is allocated for habitat protection. In both cases, expenditure would be spread over four years. Dkr 200 million is allocated for greenhouse gas reduction projects abroad. Critics have complained that overall environmental spending has been cut for the fourth year running.

### **12. EU Environment Agency Predicts Increased Storms, Floods, Drought**

The European Environment Agency Aug. 18 released a report predicting increasingly severe weather problems in Europe over the next generation as a result of rising temperatures, calling the 1997 Kyoto Protocol the best first step to reversing some of the effects of the trend. The report, Impacts of Europe's changing climate: An indicator-based assessment, which is in line with much of the previous research into the subject, showed that temperatures were rising in Europe faster than they are rising worldwide. The report projected that average temperatures in Europe would rise by between 2.0 and 6.3 degrees Celsius this century, compared to projected rises of 1.5 and 3.5 degrees Celsius worldwide. As a result, the EEA predicted an increased rate of storms, floods, droughts, and other extreme weather in Europe. It also predicted a continued retreat of glaciers in the Alps.

The report noted that some parts of Europe could benefit from the trend toward higher temperature--such as northern Europe, where agricultural growing seasons could be extended--but that those benefits would not be enough to compensate for the desertification that would spread in southern Europe and the extreme weather that could affect the continent as a whole.

### **13. France to Launch New Biofuel Plan to Reduce Greenhouse Gases**

France this fall will unveil a new plan to increase the use of biofuels, as part of wider efforts to reduce its greenhouse gas emissions and lower the risk of climate change, Agriculture Minister Herve Gaymard said Aug. 19. The biofuels initiative, tentatively slated to go into effect Jan. 1, 2005, will seek to bring about a fivefold increase in the use of biofuels by 2010, so that fuels such as vegetable oils and agricultural ethyl alcohol

account for 5.75 percent of all fuel consumption in France, Gaymard said during the weekly Cabinet meeting.

At present, biofuels make up about 1 percent of all fuel consumption, reducing France's carbon dioxide emissions by 16 million tons annually, Gaymard said.

The government's pending release of the biofuels initiative will represent one of the first steps toward implementation of a national climate change action plan unveiled July 22.

The 2004 Climate Plan outlines a series of programs designed to cut 72 million tons of carbon dioxide emissions annually, beyond the scope of France's commitments under the Kyoto Protocol. The European Union's burden-sharing approach to the Kyoto Protocol calls on France to freeze its greenhouse gas emissions at 1990 levels over the 2008-2012 period, an objective that government officials say will require annual reductions of 54 million tons of carbon dioxide emissions.

On August 19<sup>th</sup>, French President Jacques Chirac hailed the biofuels initiative, which he said would carry "agricultural, environmental, and energy" benefits.

France will open a series of public tenders in the coming months as part of this campaign, Prime Minister Jean-Pierre Raffarin announced Sept. 7. Raffarin said the government plans to license construction of four new biofuels production facilities, boosting France's annual production of cleaner, agriculture-based fuels from today's 450,000 tons to 1.25 million tons by 2007.

Raffarin's announcement of pending public tenders for new production facilities marks the official launch of the biofuels initiative.

The planned biofuels increase will be a boon for the farm sector, which will see production of biofuel crops jump from today's 320,000 hectares to more than 1.2 million hectares by 2007. Three-quarters of current biofuel production is rapeseed-based "diester," a vegetable oil-sourced diesel fuel known as "bio-diesel" in other parts of Europe, while the remainder is comprised of ethanol sourced from a variety of crops, including beetroot, sugar cane, corn, potato, and wheat, according to government data.

Raffarin has delegated the choice of fuel types and the principal means of subsidizing new production to a joint task force headed by the agriculture and environment ministries.

The task force has launched a series of consultations with representatives of the farm and energy sectors, as well as leading environmental organizations, that aims to reach final decisions on the type of biofuels, as well as government funding, by year-end, Raffarin said.

At present, fuel tax exonerations on the existing biofuels production cost the government [Euros] 180 million (\$221 million) annually, while EU farm subsidies are estimated at nearly double this amount.

Raffarin had no comment on whether existing fuel tax exonerations would be extended to new biofuel production, and said only that the cost to consumers of increased biofuels production would not be more than one euro-cent (about 1.2 cents U.S.) per liter.

#### **14. EU Commission Reports Poor Performance in Implementing Directives**

France, Greece, Ireland, Italy, and Spain were the worst offenders in what the European Commission calls a "bad" overall performance in 2003 by the European Union member states when it came to implementing environmental laws. Based on the Commission's annual survey, infringement of EU environmental laws represents a third of all legal cases the EU executive body launched against member states. The number of ongoing cases related to violations of EU environmental law was 509, the Commission said.

Of the pending cases, 24.6 percent (125) involved laws dealing with improved air quality while 21.6 percent (110) involved waste disposal legislation and 19.3 percent (98) involved water quality directives and regulations. Another 15.6 percent (79) concerned infringement involving EU nature conservation laws while 8.3 percent (42) concerned chemical and biotechnology protection laws. Another 7 percent (36) concerned environmental impact assessment laws, the Commission said.

The Commission report, Fifth Annual Survey on the Implementation and Enforcement of EU Environment Law 2003, also said that as of the end of 2003 there were 88 cases in which environmental directives were not transposed on time and 118 cases where the EU directives were not correctly transposed. Another 95 cases involved member states that did not meet so-called "secondary" obligations under the directives, which concern missing deadlines for presenting required plans, the submitting of data, or designating protected areas.

The report does not include the 10 new member states, which joined the EU May 1, 2004.

The report also stated that the Commission had taken a more proactive approach when it comes to enforcement of EU law in recent years and that helps explain the high number of cases. However, the Commission also stated, "Taking non-compliant member states before the European Court of Justice was not the only nor necessarily the most effective way of ensuring compliance because the proceedings are time consuming (two years on average).

Concerning the failure to meet deadlines for the transposition of EU environment directives, the report said France was the subject of the most cases with 11, followed by Germany and Greece with nine each. Belgium was the subject of eight cases, and Spain, the Netherlands, and Italy were the subject of seven cases. When it comes to cases involving improper transposition of EU environment directives France was the worst with 17 while Italy was just behind with 16. The next worse offender was Spain with 10 cases pending while Ireland, the Netherlands, and Austria had eight.

#### **15. Agency Points to EU Car Emission Testing Flaws**

EU standard tests for carbon dioxide and other harmful emissions from new cars fail to reflect the real world, the European environment agency (EEA) has warned. The findings are part of the agency's fifth annual environmental assessment of transport in Europe, known as Term.

The assessment, presented as ministers met in Amsterdam to discuss greening transport, points out a series of flaws in the tests. First, various equipment that increases vehicle weight, thereby adding to emissions, is not included. Growing use of seat heaters, air conditioning and the like could be adding an extra 16 to 28 grams per kilometer (g/km) to new car CO2 emissions, the agency says.

And though Euro emission standards for pollutant emissions from cars have brought particulate matter, sulfur and nitrates (PM, SOx and NOx) below the level of transport growth, "test cycles do not reflect how engines are used in the real world". This may be why urban air quality is not improving as quickly as vehicle fleet data suggest it should, the agency says.

In addition, the popularity of 'chip tuning' diesel engines to improve their power also risks wiping out the benefits of lower emissions from diesel fuel, and seems to boost PM emissions by a factor of three.

Furthermore, says the report, even without factoring in non-tested equipment like air conditioning, CO2 emissions from transport have gone up about 20% over the past decade, as growth outstrips clean technology innovations.

An agreement from car manufacturers to cut CO2 to 140g/km by 2008, though likely to be met, will not be enough to have a significant impact on emissions. The EEA suggests that including vans and trucks in the agreement would help.

Basing vehicle taxation more on CO2 emissions would be a further way of tackling the problem, it adds. So would setting CO2 emission limits like those already imposed on pollutants, and/or increased use of biofuels.

Incentives for the use of cleaner cars, or new road pricing systems, are two possible given ways of dealing with an expected rise in transport volume. More broadly, the agency criticizes EU policy for missing its key aims of promoting public transport over private, and breaking the link between transport growth and GDP.

## **16. EU Ministers "Impatient For Vehicle CO2 Cuts"**

Governments increasingly believe the EU will have to legislate to limit carbon dioxide (CO2) emissions from cars, it emerged at the latest meeting of EU environment ministers. The shift reveals dwindling confidence in the voluntary approach the bloc has taken up to now.

Under a landmark EU voluntary agreement, European, Japanese and Korean carmakers are working to reduce fleet average emissions to 140 grams per kilometer (g/km) by 2008/9. Manufacturers have so far avoided committing to the EU's more ambitious political goal of average 120 g/km by 2012.

Speaking after the environment ministerial in Luxembourg, Dutch environment Minister Pieter van Geel claimed "a lot of ministers said a voluntary basis was perhaps not enough, and that we should also consider legislative measures or financial and fiscal measures to reach our goal."

In a written statement, the EU presidency added that ministers had asked for a proposal on "a stringent ceiling" and felt the Commission "should be prepared to legislate on this if the automotive industry proves recalcitrant". A year ago, German minister Jürgen Trittin was alone in calling for legislative action.

In talks on sustainable transport issues, ministers also focused on the next round of EU vehicle emission limits. They agreed that the next generation of norms for cars and light vans (Euro V) should include "ambitious" limits on nitrogen oxide (NOx) emissions. In a discussion paper for the meeting, the EU presidency defined this as a 70% reduction from Euro IV limits.

Ministers backed early action to develop the next generation of lorry emission norms (Euro VI), targeting in particular fine particle and NOx emissions. The meeting also revealed growing support for the general introduction of particle filters on diesel vehicles.

In a statement, French environment minister Serge Lepeltier said that France had backed general use of particle filters for the first time on Thursday. In the run-up to the council, European carmakers had also expressed support, he said. "A great step forward has been taken", he added.

### **17. Italy Mulls SUV Tax, Car Scrapping Incentives**

Italy is considering a tax to discourage the use of large cars such as sports utility vehicles (SUVs), according to environment minister Altero Matteoli. The tax would be intended to discourage the use of big polluting cars. Revenues from it would fund incentives to scrap old, environmentally unsound vehicles.

Although details of the plan will only be decided in upcoming parliamentary debate on the 2005 budget, the tax could add 5 percent to the cost of personal vehicles that surpass limits for engine size and total length. According to the Environment Ministry, the tax will be calculated based on the size of the vehicle's engine, the year the vehicle was produced, and the type of fuel the vehicle uses. Vehicles that pollute more will have to pay higher fees, which will probably be added to the cost of renewing license plates, something drivers in Italy must do every two years.

The initiative is expected to provide a boost to struggling Italian carmaker Fiat SpA, which does not make sports utility vehicles but which does produce smaller and more environmentally friendly cars. Because of this, the move could also prompt other countries to protest against perceived trade protectionism.

Earlier in the year, France proposed a similar tax scheme, drawing complaints from Germany, which is home to Europe's two largest SUV producers, Porsche AG and BMW International AG. France's two main domestic carmakers, Renault SA and Peugeot SA, have product lines similar to Fiat's. The French proposal was shelved in July, though French Environment Minister Serge Lepeltier has repeatedly stated his intention to bring the measure back before France's national assembly.

### **18. Road Safety Organization Sues France to Prohibit 'Unnecessarily Fast Cars'**

A roadway safety organization announced Oct. 11 that it had filed suit in France's highest administrative court over the government's failure to impose maximum speed limits on vehicle manufacturers. The suit urges the Council of State, France's highest court of appeals for governmental decisions, to order the transport ministry to withdraw authorization for all new vehicles that are physically able to exceed the national speed limit of 130 kilometers per hour.

The Association for a Ban on Unnecessarily Fast Cars claims that the government should force manufacturers to limit engine size and take other measures to ensure that new vehicles are incapable of violating national speed limits.

The suit echoes demands from some French environmentalists who claim that limiting engine size and maximum speed of vehicles would reduce fuel consumption and carbon dioxide emissions.

Green Party leader Dominique Voynet lobbied unsuccessfully during much of her 1997-2001 term as Environment Ministry for government action to impose maximum speed limits and engine sizes on new vehicles, and the issue remains a priority for the party.

France's official governmental policy has always stated that any effort to lower maximum vehicle speeds via technological means must be taken at the European Union level to guarantee fair competition among European carmakers.

### **19. EU Prepares To Get Tough With New Members**

The EU's ten new member states will soon be challenged over apparently widespread failures to transpose European green rules into national law, a senior European Commission environment official has said. Since they joined the EU in May the ten countries have been allowed a grace period, Georges Kremlis told an audience in London. But their transposition performance is "not satisfactory", and the Commission intends to start infringement proceedings by the end of December, he added.

The new members should have transposed virtually all the EU's 561 pieces of environmental legislation, including over 200 main directives, into law by the time of accession.

The challenge of meeting targets in EU directives also looks extremely difficult for the new member states, according to Mr. Kremlis. The costs of upgrading major infrastructure have been put at €50-80 billion, compared with EU funding of only €3.5 billion, he said. Particularly problematic sectors are likely to be waste, water, nature conservation, air and environmental impact assessment. Turning to options for improving legal compliance across the EU, Mr. Kremlis said the Commission wanted to promote some national handling of complaints about alleged breaches of EU environmental laws. The Commission will make a formal proposal on this next year, he said.

## **20. Nationwide Road Pricing Back On Dutch Agenda**

The Dutch government has launched a new debate on introducing nation-wide road pricing for all vehicles. In a policy paper on transport policy to 2020 issued on 30 September it called road pricing "inevitable" and pledged to avoid previous mistakes by working to win public support for the idea.

Road pricing has been high on the agenda in the Netherlands before. The previous government proposed such a system in 2001, only for parliament to reject the idea the following year. Independent experts again recommended national congestion charging in 2003.

The new policy paper avoids proposing specific technologies for road pricing and focuses instead on the need to generate "broad public support". The transport ministry is creating a stakeholder "platform" to start a public debate and to make recommendations next spring.

The policy paper's overarching target is a free-flowing traffic system without serious congestion, alongside improvements to airport and port connections and further investment in rail and inland waterway transport. The government is to invest €1 billion in innovation programs aimed at making traffic cleaner and quieter.

## **21. Danes Publish Costing Of Particle Pollution**

Every kilogram of fine particles emitted in Denmark is costing the economy DKr 140-2,000 (€19-269) in health costs, according to a study by national environmental research institute NERI. The study updates earlier work, not only by using Danish prices to more accurately compute benefits of reduced pollution but also by modeling impacts from pollution by the tiniest PM2.5 particles rather than larger PM10.

The research was carried out in the framework of the EU ExternE program, which aims at calculating environmental externalities of pollution in monetary terms.

## **22. New EU Transport Chief Suggests Kerosene Levy**

EU transport-commissioner designate Jacques Barrot has suggested that the bloc introduce a tax on aircraft fuel for internal flights. The Frenchman's remarks at a hearing before MEPs have put back on the EU agenda an idea rejected by the current European Commission five years ago.

"Would it not be possible to introduce a low rate of tax on intra-community flights which are not exposed to international competition?" Mr. Barrot said. However, the tax could only be introduced "when fuel prices have settled down" and would have to take account of both competitive and environmental effects, he added.

Kerosene taxes were ruled out as a policy option by the Prodi commission in 1999. In a policy document it said different permutations of the tax would either hit domestic airlines' profits too hard or produce negligible environmental benefits.



### **23. Russia To Ratify Kyoto Protocol**

Russia's government has taken a decisive step towards ratifying the Kyoto protocol. According to the Interfax news agency the Kremlin, led by president Vladimir Putin, has formally approved the treaty and asked the Russian parliament to back ratification. The development has prompted a flood of praise from Kyoto supporters.

Interfax says the government has also given Kyoto-relevant ministries three months to develop a "comprehensive plan" for implementing Russia's obligations under the protocol. Once Russia ratifies, its 17% share of industrialized country climate emissions will take Kyoto beyond the 55% threshold that triggers entry-into-force. The protocol's provisions - notably country-specific caps on emissions of a basket of six greenhouse gases - will become legally binding 90 days later.

The Kyoto Protocol would take effect 90 days after Russia submits its instrument of ratification to the United Nations.

Russia, which would be the 30th industrialized country to ratify, is required by the treaty only to stabilize its emissions at 1990 levels. Russia would have no difficulty meeting its targets for the first implementation phase of the Kyoto pact because its carbon emissions have declined since 1990, following the collapse of the Soviet Union and the closing of many state-owned enterprises.

The next conference of Kyoto signatories--set for Dec. 6-17 in Buenos Aires--will not be considered the first "Meeting of the Parties" to the Kyoto Protocol. For that to occur, 90 days must pass between Russia's delivery of its instruments of ratification to the United Nations and the next scheduled session of the parties.

### **24. German Poll Shows Strong Environmental Commitment**

German environment minister Jürgen Trittin has welcomed as "remarkable" an opinion poll showing stable or even growing strong public commitment to environmental protection despite a period of considerable economic and social uncertainty. The government-sponsored poll found that 92% of Germans consider environmental protection to be important, about level with two years ago. Moreover, environment climbed from fourth to third place in citizens' ranking of the most important problems in Germany, now sitting equally with social justice behind the economic situation and unemployment.

Mr. Trittin also welcomed strong support for the government's promotion of wind energy and its climate change policies. Fifty-six per cent wanted Germany to play a pioneering role in the EU in this field, up nine percentage points from two years ago. "This vindicates our policies, which we will continue to pursue vehemently," the minister commented.

Some 82% of respondents judged the quality of Germany's environment to be quite or very good. Their biggest environmental concern was nuclear power, with 59% believing it posed serious risks to themselves or their families.

## **25. German Railways To Cut Particle Pollution?**

German rail operator Deutsche Bahn (DB) has pledged to cut fine particle emissions from diesel locomotives, the country's environment ministry has announced. Junior environment minister Margareta Wolf welcomed the commitment only to purchase locomotives with particle filters as well as to retrofit existing stock. Railways risk losing their environmental lead as particle filters become standard on cars, she said. This would damage rail's competitiveness. A DB spokesperson however indicated that the firm had committed only to ensure that new locomotives met EU 2007 emission standards. Particulate emissions have fallen almost 80% since 1990, DB says.

## **26. Dimas Faces Up To A Skeptical Parliament**

EU commissioner-designate Stavros Dimas has staked his claim to be taken seriously as defender of environment policies in a new European Commission expected to concentrate on economic growth. In a hearing before MEPs the successor to Margot Wallström acknowledged the current political climate was "difficult" for environmental policy. He said his aim was to "prove that environment is not competitive to economic aspirations... [and] can contribute to competitiveness."

Mr. Dimas said he wanted to explode the "deeply rooted myth" that there had to be a trade-off between economy and environmental protection. "Well-designed environmental legislation can boost innovation and produce higher quality for lower costs, which improves competitiveness," he said. "The best companies are those which adhere to highest standards."

The meeting provided Mr. Dimas with his first chance publicly to discuss his policy priorities. His exchanges with MEPs brought out positions on a wide range of current issues.

But the lawyer and former industry minister faces a challenge to persuade many in parliament that he can champion the green agenda. "You don't strike me as a natural environmentalist," British parliamentarian Chris Davies told him during the hearing. Italian MEP Guido Sacconi said he was big on grand ideas but short on specific policy suggestions.

Both the parliament's most green-leaning political groups said they would not support Mr. Dimas's appointment. GUE/NGL said he lacked the required "energy, vision and a genuine commitment to sustainable development". The Greens-EFA said the hearing "confirmed our fears that the new Commission intends to downgrade environmental protection".

Committee chair Karl-Heinz Florenz was more supportive, telling Mr. Dimas he had "no doubt that you will deal energetically with the issues." But he added that the parliament "needs more than just declarations of intention".

Dimas outlined his priorities, as set out in a written submission, to be climate change, biodiversity, environment and health, and sustainable production and consumption.

The recent decision to reevaluate the full slate of new Commissioners however may result in a new proposal for the Environment job.

## **27. De Palacio Swan-Song On Energy-Environment**

Loyola de Palacio has sought to justify her approach to environmental issues in a speech in Brussels. The outgoing EU energy commissioner insisted that she had tried to find the right balance between energy and environmental policies.

Ms de Palacio has aroused much controversy during her five-year term. She became a hate figure for European environmentalists over her allegedly "pro-nuclear, anti-renewables" views. She also upset colleagues in the European Commission by repeatedly questioning the wisdom of EU climate change policies.

Speaking at a workshop on "Europe's energy outlook", Ms de Palacio said she had worked hard - and rightly - to put transport and energy policies at the top of the agenda, notably by promoting biofuels and shifting goods transport off roads. The Commission had also put a high priority on improving energy efficiency, Ms de Palacio said. New EU laws had been passed on buildings' performance and cogeneration of heat and power. Another was on the table on improving overall EU energy efficiency.

The commissioner said she had tried to "encourage a dispassionate debate" about nuclear power, believing it to be necessary to restrain greenhouse gas emissions. "We would all welcome" a greater contribution by renewable energy, she went on, and "far more needs to be done" to make renewables competitive.

## **28. European Funding Helps Take Freight Off Roads**

The European Commission has announced 13 projects that will receive €15m of EU funding to shift freight transport from roads to "greener" modes. They are the first such projects to be supported under Europe's 2003-6 Marco Polo program. They will shift 13.6 billion ton/kilometers of freight to short-sea shipping, rail and inland waterways - beating the program's target of 12 billion t/km annually - the Commission said. The projects should save €15 in external environmental costs for every €1 of EU subsidy, it added.

## **29. Danish CO2 Tax Revenue To Fund Green Grants**

Danish companies are to receive Dkr 144m (€19m) in government subsidies over the next four years for environmental improvements, the environment ministry has announced. The grants are to be funded from national CO2 tax revenues. They were

approved in last year's budget but were reportedly delayed pending agreement on "framework conditions". Qualifying projects would include implementation of EU regulations and government strategies, R&D on alternative technologies, and industrial and/or consumer safety initiatives, the ministry said in a statement.

### **30. EU Wants to Cut Greenhouse Gases in Cars**

The European Union's battle against global warming will force companies to change automobile air conditioning systems and restrict the sale of air-cushioned sports shoes, European Union ministers have announced. The measures, included in draft legislation, are part of the EU's commitment under the Kyoto Protocol to cut greenhouse gas emissions. The draft laws will also limit the leakage of environmentally-harmful fluorinated gases from items like refrigerators.

"F-gases have huge global warming potential -- in some cases almost 24,000 times that of carbon dioxide," EU Environment Commissioner Margot Wallström said in a statement. "By agreeing this legislation, member states have once again taken concrete action to fight climate change."

From 2011 new vehicle models will be prohibited from using hydrofluorcarbon (HFC) 134a, the refrigerant used globally in car air conditioners. From 2017 the gas will be banned from all new vehicles sold in the EU. Before the complete phase out, air conditioners will not be allowed to leak more than 40 grams of HFC-134a annually.

Commission officials said the car industry would face costs of 30-40 million euros (\$37-50 million) a year initially, rising to 200-400 million euros annually once the legislation is in full force.

The rules will apply to all cars sold in the EU, whether manufactured in Europe or imported from abroad, a Commission official said. He said alternatives to the gas could be used instead, including carbon dioxide (CO<sub>2</sub>), which is also considered harmful to the environment but less so than the fluorinated gas currently standard in car air conditioners.

He said HFC-134a was 1,300 times more harmful to the environment than CO<sub>2</sub>.

Though more harmful than CO<sub>2</sub>, fluorinated gases are also less common. F-gases in general account for only two percent of total EU greenhouse gas emissions currently.

But their potency is high. The Commission estimates the legislation, which must still be approved by the European Parliament, will reduce the gases by more than 20 million tons a year in CO<sub>2</sub>-equivalent terms by 2012.

More than changes in cars will contribute to that decline. The legislation will ban marketing and use of certain products like sport shoes and some vehicle tires, windows, and "novelty aerosols" that contain F-gases. The footwear ban could begin as early as 2006.

More important, Commission officials say, will be efforts to contain the amount of F-gases that leak into the atmosphere from items like stationary air conditioners, refrigeration units, and fire extinguishers.

The draft legislation will set minimum standards for the inspection of such equipment, which contain at least 3 kg (6.6 lb) of F-gases or more like those used in supermarkets. It will also set up minimum standards for "training and certification of personnel," the Commission said.

Final adoption of the legislation is expected near the end of 2005, but it may face criticism in parliament.

### **31. Czech Parliament Reviewing Draft Law On Renewable Energy**

The Czech Parliament is reviewing a draft law that would require energy companies to supply 8 percent of their electricity and heat from renewable sources by 2010.

The proposed legislation, "Law on the Support of the Production of Electricity and Heat From Renewable Resources," was developed jointly by the Ministry of Environment and Ministry of Industry and Trade and was approved by the Cabinet in August. It is now being reviewed by the parliamentary committees on the economy and the environment.

The law would require energy distributors to buy power and heat from producers using renewable, non-fossil sources at prices determined by the Energy Regulation Bureau.

The draft law would establish a system of "green coupons" which could be traded among power suppliers and distributors in order to meet the 8 percent quota. Companies that fail to produce enough certificates to meet their quota at the end of the year would be fined three times the value of the missing coupons.

### **32. France Budget Bill Would Cut Spending On Environment**

A French budget bill for fiscal year 2005 would cut funding for the Ministry of Ecology and Sustainable Development by 3.6 percent from 2004 to [Euros]825.5 million (US \$1 billion). Parliament could, however, still allocate additional funding, officials said.

The draft bill, released Sept. 22, also includes provisions for tax incentives intended to encourage households to install more energy-efficient heating equipment. The bill is slated to go before Parliament in the coming weeks.

Minister of Ecology and Sustainable Development Serge Lepeltier said that his budget fell victim to a wider governmental austerity plan. Lepeltier also outlined plans to refocus his ministry's efforts on five priority areas: climate change; biodiversity protection; reform of national water policy and improvement of water quality; risk management and pollution prevention at industrial sites; and promotion of sustainable development.

The biggest budgetary blow will be felt by the French Agency for the Environment and Energy Management (Agence de l'Environnement et de la Maitrise de l'Energie,

ADEME), a government think tank. The 2005 budget bill cuts the environment ministry's allotment for ADEME from this year's [Euros] 100 million to [Euros] 63 million in 2005.

Lepeltier sought to downplay concerns about the environment ministry budget, stating that employment in the ministry would actually increase despite the budget cuts, although by only 0.6 percent, or 20 new positions. The government has provided assurances that pending parliamentary discussions will add [Euros] 140 million euros in additional spending, which will push the ministry's actual spending in 2005 to the [Euros] 1 billion mark projected for 2004, Lepeltier said. Lepeltier also pointed out that the budget bill creates a new tax credit to promote energy efficiency as part of a wider campaign to fight climate change.

The proposal calls for households to be allowed to take income tax deductions ranging from 15-40 percent of total costs for installing energy-efficient heating and water-heating equipment and for insulation with an upper limit on applicable costs of [Euros]8,000.

### **33. Italian Plan To Relax Standards For Power Plants Revoked**

The Italian government Sept. 24 revoked a three-month old plan that would allow for environmental protection standards for Italian power companies to be automatically suspended in order to boost output during periods of high demand.

The measure was put into place in June amid fears that an unusually hot summer could result in widespread blackouts similar to the situation in 2003. But the summer of 2004 saw temperatures close to traditional norms and demand never approached problem levels.

In a statement, the Ministry of Energy said increases in electrical output due to the modernization of two power plants increased capacity to the point that emergency measures would be less necessary in the future, allowing the emergency plan to be removed from the books.

"If we had the capacity we will have in 2005 two years earlier, the blackouts may not have occurred," the statement said, adding that the modernizations will also allow Italy to decrease reliance on foreign imports, though it did not say by how much. Currently, more than a fifth of Italian power is imported, mostly from France and Switzerland.

Environmental organizations, which had strongly opposed the emergency power plan from the beginning, applauded the repeal of the emergency plan but said the repeal was not entirely due to an increase in generating capacity.

The ministry said it retained the right to reinstitute emergency measures in the future, if they are needed.

Experts estimate that by relaxing standards for power plant emissions, the existing infrastructure can produce between 1.0 percent and 1.5 percent more power, albeit at a high per-unit cost. The European Union allows such standards to be suspended in emergency situations.

### 34. Germany Considers Measure To Reduce Airport Traffic Noise

The German Ministry of the Environment plans to lower the air traffic noise thresholds which trigger nearby residents' right to have airport operators install noise barriers on their windows. Draft proposals now under discussion would lower the daytime threshold at which residents within a specified area can demand construction of window protection units to 65 decibels from the current level of 75 decibels specified in the 1971 Law on Air Traffic Noise Protection.

Additionally, the proposals would introduce an even lower level of 60 decibels in connection with a new airport or airport expansion, and would increase the area protected from noise from nighttime flights to include residential areas under overflight routes. Residents would have the right to demand bedroom window protection against air traffic noise if the average nighttime level exceeded 55 decibels, and 50 decibels if the noise were in connection with a new airport or expansion.

The draft proposals would bring the threshold values for noise protection closer to similar standards for new and expanded roads and railway tracks, the ministry said. The decreases in threshold values are based on recommendation from an independent advisory group, the Council of Experts for Environmental Matters.

The draft measures are expected to cost [Euros] 500 million for German civilian airports over the next 10 years, and [Euros] 100 million to [Euros] 200 million for military airports, according to estimates from the research bureau of the ministry, the Federal Environmental Agency. The proposals would allow airports to spread the investment costs for the noise protection of residential and other affected buildings over ten years. Airports would be able to pass on the costs to airlines and passengers, which would result in an estimated increase in flight tickets of about [Euros] 1 to [Euros] 2, the ministry said.

The draft would also prohibit the construction of new residential buildings in the high noise zones and would specify new procedures for measuring and evaluating the noise burden in order to keep monitoring manageable, the ministry said.

Under the "most optimistic" scenario, the Cabinet would adopt the draft in November for parliamentary approval in December so that the law could enter into effect by mid-2005, a spokesman for the Ministry of the Environment said Oct. 5. The ministry held an initial hearing on the draft proposals Sept. 13, after having released them June 22 of this year.

However, the affected parties and their advocates are still hashing out issues such as the final costs to airport operators, a possible prohibition of night flights, and how to draw the boundaries of the noise protection zones, the spokesman said.

The German Airports Working Group (ADV) has calculated that the lowered noise thresholds as currently specified in the draft would cost civil airports "at least [Euros] 1 billion". It also called the aims of the proposals "unrealistic" and said the values did not reflect up-to-date research on the effects of airplane traffic noise.

Having lower thresholds for new airports and expansions than for existing airports could act as a brake on the sector, which would be bad for the environment, because it would remove flexibility for adjusting air traffic patterns, the ADV said.

Still, the airports said, more legal certainty is necessary, and they welcomed the law as a way to avoid long and costly lawsuits over noise, which are often tried on an individual basis.

The Federal Association Against Airplane Noise disputed the airport operators' claims on the costs of the proposed measures in a Sept. 13 statement. Airport operators already plan to spend [Euros] 400 million in noise prevention over the next ten years on a voluntary basis or in order to obtain the necessary approvals from authorities under existing rules, independent of the proposed measures, it said.

Additionally, the increase in ticket prices due to passing the costs on to passengers would be roughly 10 to 15 euro-cents per ticket, the association said.

Hundreds of thousands in Germany are exposed to levels of air traffic noise which are unhealthy, the association said.

### **35. OECD Praises Swedish Environmental Policy**

Sweden has implemented a series of innovative and effective environmental policies that have reduced pollution and put the country on track to meet its international commitment to limiting greenhouse gas emissions under the Kyoto Protocol, according to a report released Oct. 1 by the Organization for Economic Cooperation and Development.

The report, Environment Performance Review Sweden: 2004, notes, however, that more must be done, particularly toward meeting other environmental objectives in the industry, energy, transport, forestry, and agriculture sectors.

The OECD report, presented in Stockholm by Swedish Environment Minister Lena Sommestad and OECD Environment Director Lorents Lorentsen, praises Sweden for making good use of economic instruments and environmental taxation.

Implementation of the "polluter-pays" principle and extensive use of market-based instruments have reduced environmental impacts from the agriculture, transport, and energy sectors, while so-called green tax reform, including increasing taxation on fuel and energy use, is seen as a principal driver in Sweden's successful bid to meet international commitments to fight climate change, the OECD said.

The European Union's 1998 burden-sharing agreement for implementation of the Kyoto Protocol allows Sweden to increase greenhouse gas emissions by 4 percent from 1990 levels over the 2008-2012 period, principally to compensate for its ongoing phase-out of nuclear power. Sweden is one of only two EU member states, alongside the United Kingdom, in line to meet the burden-sharing obligations, according to EU data.

Environment Minister Lena Sommestad has repeatedly stated that the government remains optimistic that it will meet a self-imposed goal of registering a 4 percent reduction during the period, principally through policies utilizing energy taxes that reduce



energy use and emissions. The European Commission ruled June 30 that some energy tax exemptions provided by the Swedish government to the country's manufacturing industry since 2002 amount to illegal state aid that conflicts with EU single market rules, and will order some redress.

The OECD, a think tank and negotiating forum for 30 of the world's most industrialized democracies that has long called on its members to use environmental taxation to meet policy objectives, looks past the recent European Commission criticism.

It notes that the Swedish approach has brought about "considerable environmental achievements," giving the country the lowest level of carbon dioxide emissions per unit of gross domestic product (GDP) among the OECD member states.

To build on advances made over the past decade, the OECD recommends that Sweden further improve environmental protection by:

- strengthening the inspection, compliance, and enforcement of environmental regulations at regional and local levels;
- improving water management to reduce nitrates and pesticides, and complying with the EU water framework directive;
- better protecting nature and biodiversity through increases to the number and quality of protected areas for marine, forest, and wetland areas;
- reviewing trade controls on the export of ozone-depleting substances and the illegal trade in endangered species; and
- Providing more economic information on the environment, such as that on environmental expenditures and energy prices, and greater economic analysis of climate change policies.

To further integrate environmental concerns into sustainable development goals, Sweden is urged to:

- address the management of marine resources, including problems of nutrients, dioxins, environmental inspection of foreign ships, and over-fishing;
- increase energy efficiency, through greater use of flexible mechanisms and energy pricing practices; and
- Decouple municipal waste generation and road traffic expansion from economic growth.

### **36. French Minister Unveils 'Clean Car' Program**

France's Minister of Ecology and Sustainable Development Serge Lepeltier Sept. 21 unveiled plans for a "Clean Car" program that aims to diversify the country's vehicle fleet away from petroleum fuels as part of wider efforts to reduce greenhouse gas emissions.

The signature element of the new Clean Car initiative is [Euros] 40 million in government funding for research and development of alternative-fuel vehicles and energy efficiency programs.

The funding will extend through year-end 2005 and will be provided to programs managed by the environment, industry, and research ministries, Lepeltier said. Target areas include fuel cell-based car technologies, hybrid vehicles with multiple fuel sources, cleaner engines, and more efficient air conditioning systems. Lepeltier said the government will continue to support well-established but commercially unsuccessful alternative fuel technologies including vehicles powered by electricity, liquefied petroleum gas, or compressed natural gas.

The second major element of the Clean Car initiative aims to encourage public authorities to increase the use of cleaner vehicles. Lepeltier pointed out that public authorities at the national, regional, and local level have failed to meet obligations outlined in the 1996 Clean Air Act. The act requires government agencies to ensure that at least 20 percent of all vehicle purchases came from a list of "clean" cars using low-pollution fuel and/or technology. Nationwide, less than 10 percent of public authorities' vehicle procurements now meet the "clean car" standard contained in the 1996 act, Lepeltier said. In addition, a recent survey carried out by the environment ministry shows that only 40 percent of all agencies have ever purchased a hybrid, electric, or natural gas-fueled vehicle.

While Lepeltier admitted that he has little real influence over procurement in other ministries or government agencies, he said government plans to give tax incentives to public agencies for purchasing low-pollution vehicles could have an impact. Similarly, he said a "name and shame" campaign could bring about positive change. The environment ministry will shortly begin publishing quarterly reports on all public agencies' vehicle purchasing to inform the public on progress in the Clean Car initiative. The reporting will highlight purchases of alternative-fuel vehicles as well as those of vehicles that meet a new voluntary pollution standard of maintaining average carbon dioxide emissions at or below 140 grams per kilometer.

Finally, Lepeltier said that existing tax credits of [Euros] 1,525 euros offered to individual buyers of clean cars will remain in place through 2005.

### **37. EU Report Outlines Environmental Policy Challenges**

EU environmental policy has led to investments that have benefited public health and European ecosystems, but the continent still faces serious unresolved environmental issues, including climate change, loss of biodiversity, and urban air pollution, according to a report released Sept. 20 titled *Outstanding Environmental Issues: A Review of the EU's Environmental Agenda*. To achieve the EU's strategic environmental goals, new policies should focus on developing clean, low-carbon-dioxide technology in energy generation, industry, and transportation; and policies must seek to give appropriate economic values to the sustainable use of natural resources, according to the report, which was jointly produced by the Netherlands Environmental Assessment Agency and the European Environment Agency.

Climate policies have so far been effective with respect to renewable energy, reduction of non-CO<sub>2</sub> greenhouse gases, and improved energy efficiency in buildings. Indeed, without these policies, emissions in the EU-15 would have been some 5% above current levels. As a result of these policies and other factors, greenhouse gas emissions in the EU-25 are now several percent below 1990 levels. However, an EU-wide emission reduction of 25-40 % over the next 20 years is necessary to meet the EU's target of restricting global warming to 2 °C. Ongoing investments in Europe's energy, industry and transport sectors offer considerable potential for CO<sub>2</sub> reduction. However, tapping into this potential depends on improved prospects for a large, stable market for low-CO<sub>2</sub> technology.

In Western Europe, EU environmental policy has resulted in relatively clean and healthy surroundings. For example, air pollution from transport has declined, despite a significant increase in traffic. This is the result of highly effective European emission standards. Nevertheless, between two and eight percent of the total burden of disease in the EU-25 can still be attributed to environmental factors. And transport, which causes poor urban air quality and noise nuisance, makes a major contribution to these risks.

The ongoing exploitation of land and water is reducing biodiversity in the EU. It seems unlikely that the target to halt further loss of biodiversity by 2010 will be met, as pressures such as the growth of infrastructure, intensive agriculture and serious overexploitation of fish stocks remain.

The recent reform of the CAP has improved conditions for agricultural production within ecological constraints. Now Member States have to make a priority of seizing the opportunities created by CAP reform. This can speed up the fairly slow progress towards the targets for a number of EU directives such as the nitrates and water framework directives.

The CAP reforms do not guarantee that large areas of agricultural land with a high nature value, which are currently being farmed extensively, will be preserved. Higher levels of funding and better targeting of financial resources for these areas can make an important contribution to slowing down biodiversity loss.

Reversing biodiversity loss requires land that would otherwise be used for productive purposes. Alongside this claim, we expect to see increases in food consumption, energy-crop production, infrastructure and built-up areas, and also in the need to adapt to climate change. An assessment of the long-term sustainability of future claims on land use is needed to clarify whether the various policies that lay a claim on land use are in balance. This might constitute a first step towards the better integration of land-use policy into EU sectoral policies.

### **38. Greek Report Notes Reduced Smog But Rise In Other Pollutants**

Even as Athens makes progress in reducing smog, new and potentially more dangerous forms of air pollution continue to affect the Greek capital, according to a government report released Sept. 22. The most serious public health hazard is posed by suspended particulate matter and benzene, a pollutant that can cause leukemia, the Ministry of Environment, Town Planning, and Public Works said in its 2003 annual report.

Meanwhile, nitrogen oxides (NOx) and ground-level ozone also present severe problems, for which the increasing numbers and poor conditions of motor vehicles are to blame, the report says.

In addition, concentrations of suspended particulate matter measuring less than ten microns in diameter (PM-10) are frequently above safety levels at most monitoring stations in Athens. According to the report, even parts of greater Athens that ought not to be affected by pollution, such as the summit of Mount Pendeli on the capital's northern fringes, have high levels of airborne particles.

During the Aug. 13-29 Olympic Games, scientists from IES recorded concentrations of 200 micrograms of PM-10 per cubic meter of air, which is four times the EU safety threshold of 50 micrograms per cubic meter.

### **39. OECD Report Outlines Measures for Spain To Improve Environment**

The Organization for Economic Cooperation and Development (OECD) Oct. 5 released a report that generally commended Spain's environmental policies but outlined 46 specific ways Spain could improve its performance in this area.

"Spain has made considerable progress in the last decade, but the efficiency of the environmental policies could be enhanced in this country," OECD Director of Environment Lorents Lorentsen told a press conference at the study's release.

The report, OECD Environmental Performance Review of Spain, said that while robust economic growth has made Spain the world's ninth largest economy it has also brought environmental consequences, particularly in the form of pollution from the transport sector.

The 46 recommendations for achieving national environmental policy goals include recommendations for reducing ground-level ozone, suspended particulate matter, sulfur dioxide emissions, nitrogen oxides (NOx), volatile organic compounds (VOCs), and ammonia.

The report urges Spain to be stricter in enforcing pollution and land use regulations, to shift to water demand management and efficient water pricing, and to prepare for reduced support from the European Union in areas such as water infrastructure.

The OECD also recommended that Spain pursue "green tax reform" and consider adding a carbon tax. Addressing this recommendation, Spain's Environment Minister Cristina Narbona, who was also present at the report's release, announced that the government will soon carry out a "green fiscal reform" linking taxation to environmental criteria.

And in response to Lorentsen's observation that one of the biggest obstacles for Spain in achieving national environmental policy goals is the country's decentralized political system, where its 17 "autonomous communities" enjoy substantial independence from Madrid, Narbona said that one of the country's top goals would be to ensure more "homogeneous" compliance among all the regional governments.

**NORTH AMERICA****40. ARB Approves Landmark Greenhouse Gas Rule**

The California Air Resources Board (ARB) has approved a landmark regulation that requires automakers to begin selling vehicles with reduced greenhouse gas emissions by model year 2009.

ARB Chairman Dr. Alan Lloyd said, "This landmark decision sets a course for California that is likely to be copied throughout the US and other countries. Because of its forward-thinking approach, the ARB has established itself as the world leader in setting motor vehicle pollution control standards. Those standards have led to automotive technologies that dominate the way cars are built today and have significantly cut air pollution's public health risk. This regulation will have the same impact."

The regulation, which the ARB adopted after a marathon public hearing, results from legislation by Assemblywoman Fran Pavley (D-Agoura Hills) and passed in 2002. The historic regulation sets limits on the amount of greenhouse gas emissions that can be released from new passenger cars, SUVs and pickup trucks sold in California starting in model year 2009. The new regulation is based on a state of the art assessment of the various technologies and fuels that can reduce motor vehicle global warming pollutants.

According to ARB staff, the average reduction of greenhouse gases from new California cars and light trucks will be about 22 percent in 2012 and about 30 percent in 2016, compared to today's vehicles. Costs for the added technology needed to meet the rule are expected to average about \$325 per vehicle in 2012 and about \$1050 per vehicle to comply in 2016. The ARB staff analysis concludes that the new rule will result in savings for vehicle buyers by lowering operating expenses that will more than offset the added costs of the new vehicles and provide an overall cost savings to consumers.

The adoption of this rule makes California the nation's only state that has regulated motor vehicles for their contributions to global climate change. At least seven other states including New York, Massachusetts, New Jersey, Vermont, Connecticut, Rhode Island and Maine, as well as the nation of Canada, are expected to consider adopting the regulation for their use. If all of those states and Canada adopt the rule, the number of cars required to meet the rule will triple.

In addition to reducing greenhouse gas emissions the regulation is also expected to cut ozone-forming pollution by about five tons per day (TPD) by 2020.

**41. Yosemite National Park Ordering 18 GM Hybrid Buses**

Yosemite National Park joins the ranks of communities investing in transit buses powered by GM's hybrid technology, which offers up to 60-percent-greater fuel economy and 90-percent-cleaner emissions. The General Services Administration (GSA) has awarded a contract for 18 new 40-foot diesel-electric hybrid buses, which are scheduled to go in service in May 2005. Gillig Corp., of Hayward, Calif., manufactures the buses.

GM-hybrid-equipped buses are currently in revenue service in Philadelphia and Seattle, which will have more than 230 hybrid buses in service by the end of 2004, representing the largest hybrid bus order in history. In addition, the hybrid buses are in "preview programs" in over a dozen major North American cities, including Minneapolis, Portland and Houston.

"Several types of alternative fuel buses were seriously considered," commented Yosemite National Park Superintendent Mike Tollefson. "The decision to pursue diesel electric hybrids was based on a significant improvement in fuel economy, dramatically reduced emissions, and noticeably quieter operations. This is part of a major initiative to enhance transportation service to park visitors while protecting the natural beauty of the park."

In addition to improved fuel economy and dramatically lower emissions, the GM hybrid system delivers superior torque, derived from the dual electric motors used to launch from a stop, and 50-percent-better acceleration than conventional diesel buses.

The GM Allison's EpSystem is a parallel hybrid system, using two sources of power to move the vehicle--diesel engine and battery-powered electric motors. The battery is charged by the engine-generator combination. The engine is also coupled to a drive unit which passes mechanical energy to the wheels.

#### **42. Schwarzenegger Reappoints Dr. Lloyd As CARB Chairman**

Governor Arnold Schwarzenegger announced the appointment of Alan Lloyd as chairman and Sandra Berg, Dorene D'Adamo, Mark DeSaulnier, Henry Gong, Lydia Kennard, Ron Loveridge, Barbara Patrick, Patricia Pineda, and Barbara Riordan as members of the California Air Resources Board. Lloyd has served as a member and chairman of the Air Resources Board since his appointment in 1999. He previously served as executive director of the Energy and Environmental Engineering Center at the Desert Research Institute from 1996 to 1999 and chief scientist of the South Coast Air Quality Management District from 1988 to 1995.

#### **43. U.S. Climate Change Science Program Releases "Our Changing Planet"**

Our Changing Planet: The U.S. Climate Change Science Program for Fiscal Years 2004 and 2005, a report released by the U.S. Climate Change Science Program (CCSP) highlights recent research accomplishments and plans for future research necessary to manage the risks and opportunities of changes in climate and related environmental systems. A requirement of the Global Change Research Act of 1990 (Public Law 101-606), the report was issued as a Supplement to the President's Fiscal Year 2004 and 2005 budgets and submitted to Congress.

According to Dr. James R. Mahoney, assistant secretary of commerce for oceans and atmosphere and CCSP director, "The report documents our continued commitment to providing the public and decision makers with the best possible scientific information to address climate variability and change, and related aspects of global change. It includes highlights of research on climate and global change, such as aerosols, temperature

trends, and land cover changes. This research will help decision makers and managers in the United States and other countries evaluate and respond to climate change.”

The report includes highlights of recent research conducted or sponsored by the thirteen Federal agencies that participate in the CCSP, as well as research plans for Fiscal Years 2004 and 2005. This research is organized in seven primary scientific areas, including atmospheric composition, climate variability and change, the global water cycle, land use/land-cover change, global carbon cycle, ecosystems, and human contributions and responses.

The report also describes numerous activities to promote cooperation between the U.S. scientific community and its counterparts worldwide, such as the July 2003 Earth Observation Summit, hosted in Washington, DC, by the U.S. secretaries of Commerce, Energy, and State. The report also contains descriptions of principal areas of focus and program highlights for each of the CCSP participating agencies and a detailed set of CCSP budget tables.

The report outlines how the CCSP is moving forward to implement the Strategic Plan for the U.S. Climate Change Science Program, which was released in July 2003. A key implementation component is a set of scientific synthesis and assessment reports on a wide range of topics to support informed discussion among decision makers and the public. Having recently completed its public comment period, *Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences*, is among the first of these reports. Prospectuses for additional synthesis and assessment reports on topics as diverse as emissions scenarios, the carbon cycle, and potential effects of climate variability and change in the transportation sector are in preparation and will soon be made available for public comment.

#### **44. EPA Particulate Matter Research Report Released**

To further EPA's goal of safe and healthy air for every American community, EPA has released the report, "Particulate Matter (PM) Research Program: Five Years of Progress." This report summarizes PM research by EPA scientists, grantees from universities and other U.S. research institutions.

This report represents progress in the Agency's long-term plan to reduce hazardous air emissions through the combination of monitoring, regulation, and research. In 1997, following a number of epidemiological studies, EPA revised the National Ambient Air Quality Standards (NAAQS) for PM by setting a new standard for particles smaller than 2.5 microns in diameter (PM<sub>2.5</sub> or fine PM). The new research report is part of a federally coordinated effort to define PM health effects. Other federal participants in PM research include the National Institutes of Health and the Department of Energy.

The research conducted since 1997 confirms earlier findings that exposure to fine particulate matter (PM<sub>2.5</sub>) air pollution is linked to increases in respiratory health problems, hospitalization for heart or lung disease, and even premature death.

EPA estimates that these new PM air regulations will prevent tens of thousands of premature deaths and reduce hospitalizations for cardiovascular and respiratory illness by tens of thousands more people each year. The monetary benefits of reducing

mortality alone are estimated to be up to approximately \$100 billion per year; the benefits of reducing illness and minimizing the number of lost workdays and consequences of restricted activity are estimated to provide savings of billions more dollars each year. The new regulations include:

- Finalization by end of 2004 of the proposed the Clean Air Interstate Rule (CAIR) to reduce emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) - the two most important precursors to PM<sub>2.5</sub>. CAIR focuses on states where SO<sub>2</sub> and NO<sub>x</sub> emissions contribute significantly to fine particle problems in other downwind states. This proposal would result in the deepest cuts in SO<sub>2</sub> and NO<sub>x</sub> emissions in more than a decade.
- In June 2004, EPA proposed designated "nonattainment areas" for PM<sub>2.5</sub>, places with air quality levels exceeding the standards. In November, EPA will make final attainment and nonattainment designations. At that time, State, local and tribal governments must detail in state or tribal implementation plans (SIPs/TIPs) that demonstrate controls they will implement to meet the PM<sub>2.5</sub> national air quality standard.
- The Clean Air Nonroad Diesel Rule was announced in May 2004, and requires stringent pollution controls on diesel engines used in industries such as construction, agriculture and mining, and slashes the sulfur content of diesel fuel. The rule will be a major help to areas nationwide in their effort to reach the PM<sub>2.5</sub> standards.

#### **45. Nova Scotia Group Urges Environmental Considerations In Pricing Gasoline**

On September 1, an all-party committee of the Nova Scotia legislature urged the provincial government to consider environmental impacts in implementing its recommendation to regulate petroleum products prices to keep them affordable for consumers. The unanimous recommendation to restrain prices for gasoline and other products has environmental implications because any increase in the use of fossil fuels would have an "enormous" impact on greenhouse gas emissions, the committee said in its report to the provincial government.

The committee recommended a series of measures to offset the potential environmental impact of gasoline price regulation, including: greater promotion of energy efficiency in government buildings and vehicle fleets; collaboration with municipalities to boost energy efficiency in land use planning; allocation of a greater portion of provincial fuel tax revenues to public transit funding; promotion of alternative fuels, including biodiesel; and consideration of government support for fuel-efficient vehicles, including through tax incentives.

The committee was appointed by the provincial government in May 2004 to review whether current gasoline and home heating oil prices were justified and fair. It recommended that legislation be introduced no later than the spring of 2005 to ensure stable and fair prices.

#### **46. Complaint To Be Filed Over Mercury From U.S. Coal-Fired Plants**



On September 16<sup>th</sup>, a coalition of U.S. and Canadian environmental groups filed notice with the Commission for Environmental Cooperation (CEC) of their intent to lodge a complaint alleging that the Bush administration is failing to enforce the U.S. Clean Water Act against mercury emissions from coal-fired electricity generating plants. The complaint to the CEC, which administers the environmental side agreement to the North American Free Trade Agreement, will reportedly allege that the U.S. Environmental Protection Agency is failing to effectively enforce the statute against coal-fired plants, whose emissions are polluting water bodies in both the United States and Canada.

A draft copy of the coalition's complaint asks the CEC's secretariat to prepare a factual record on the alleged U.S. failure to effectively enforce the Clean Water Act against mercury emissions from coal-fired power plants that are degrading thousands of rivers, lakes, and other waters.

The draft complaint further alleges that the U.S. government's failure to effectively enforce the Clean Water Act is thwarting the main intent of the North American Agreement on Environmental Cooperation (NAAEC), which is to prevent the NAFTA parties from gaining trade advantages at the expense of the environment. "The obvious result of this failure to enforce environmental laws against coal-fired power plants is the very trade advantage, namely cheap power produced at the expense of the environment, which the NAAEC seeks to prevent," it said.

The draft complaint stresses that U.S. coal-fired electricity generating plants account for about a third of total human-generated mercury in the United States, and are the largest source of mercury air emissions in North America, yet remain the only major source of mercury emissions that are unregulated under the U.S. Clean Air Act. It cites the Toxic Release Inventory as indicating that the 1,100 coal-fired units at about 480 U.S. power plants emitted 45.2 tons of mercury to the air in 2002, and notes that the EPA puts the current figure at somewhat higher than 48 tons annually.

It cites as evidence of the environmental and human health dangers of mercury pollution the fact that methyl mercury warnings currently account for more than 75 percent of all fish consumption advisories in the United States and fully 98 percent of fish consumption advisories in the Canadian province of Ontario. In addition, the EPA has indicated that 35 percent of total lake acres and 24 percent of all river miles in the United States are now the subject of mercury advisories, it said.

The draft complaint notes that there are no realistic private remedies available to deal with the issue of mercury pollution from coal-fired generating plants. Private tort actions or other common law property rights lawsuits against the polluters face obstacles in proving causation and standing, while public nuisance suits would also be problematic since under U.S. law only government officials are well placed to prosecute such suits, it said.

The Sierra Legal Defense Fund is spearheading the coalition, which also includes the Tarrytown, N.Y.-based Waterkeeper Alliance, Ottawa-based Friends of the Earth Canada, Washington-based Friends of the Earth-US, Toronto-based Earthroots, and the Ottawa-based Centre for Environmentally Sustainable Development, the Buffalo, N.Y.-based Great Lakes United, and the U.S. and Canadian branches of the Sierra Club.

Under the North American Agreement on Environmental Cooperation, the CEC's secretariat is tasked with determining whether complaints filed with it are valid under Article 14 of the agreement and to recommend to the three national environment ministers whether further investigation, through the development of a factual record, is warranted.

If the environment ministers approve development of a factual record, the secretariat conducts a more detailed investigation, in which accused parties are required to answer the charges made against them, and presents its findings to the ministers. The ministers are not legally obligated under the trinational agreement to accept the findings or to act on them.

#### **47. Administration's Analysis On Transport Could Weaken Air Rules**

The Bush administration's decision to include a controversial analysis that finds reduced benefits for controlling particulate matter (PM) under the agency's upcoming rule to limit transported pollution could weaken requirements for reducing the pollutant through other air regulations. The analysis could undermine future agency arguments about the cost-benefit ratio of limiting particulates through technology-based standards on power plants, exhaust controls for vehicles, and other measures.

The analysis lowers EPA's current estimate of benefits for reducing PM emissions in its Clean Air Interstate Rule (CAIR) by as much as 30 percent, from \$56 billion to \$40 billion.

Top EPA and White House officials, including agency air chief Jeffrey Holmstead and White House regulatory chief John Graham, earlier this month informed agency officials that they planned to include the alternative analysis in the final regulatory impact analysis (RIA) for CAIR. EPA is working to complete CAIR within the next few months to allow the administration to possibly issue the rule as final before the end of the year. The rule would regulate transported pollution from industrial sources, particularly nitrogen oxides and sulfur dioxide, which are precursors to PM. The administration is including the analysis in CAIR despite an agency-convened peer review panel telling the agency last July in a report that "all of the reviewers had major concerns" about EPA's methodology in developing the analysis.

The alternative analysis averages responses from five experts to an EPA survey on the risks posed by PM. EPA relied on those responses to calculate benefits that accrue from reducing PM emissions.

Holmstead, Graham and EPA's lead economist Al McGartland commissioned the analysis in response to a 2002 study by the National Academy of Sciences (NAS) that urged EPA to boost its estimates of the benefits of reducing emissions, while also improving consideration of the uncertainty surrounding those estimates.

The officials drew stinging criticism from EPA staff, environmentalists and others when they included a similar analysis in the appendix of the agency's nonroad diesel rule in 2002. But including the alternative analysis in the RIA places it in the formal portion of the regulation, which will enable administration officials to rely on the results when they consider a rule's costs and benefits.

But agency staff and the peer review panel say questions about the methodology should make the analysis unfit for inclusion in the main body of the rule, particularly because any “averaging” defeats the purpose of uncertainty analysis, which is to generate a range of probable responses and their likelihood.

#### **48. EPA Searching For Fix For Diesel Pipeline Contamination Problem**

Top EPA air official Jeffery Holmstead has told the press that the agency is exploring “technological” means to avert what many in the oil industry are predicting will be a major supply disruption when new on-road diesel fuel standards take effect in June 2006 because of problems shipping the fuel through petroleum pipelines.

Holmstead’s concern stems from disappointing results from two test runs of ultra-low sulfur diesel (ULSD) fuel in the Colonial Pipeline this summer. Some say the results call into question the ability of refiners to produce sufficient amounts of the cleaner-burning fuel with a low enough sulfur content so that it meets the 15 parts per million (ppm) federal standard at its final distribution point.

The actual results of this summer’s test were first shared with EPA last week by Colonial’s quality assurance manager, Buster Brown, in a presentation at a Conference in Washington, D.C. At the beginning of the presentation Brown asked: “Does the 15 ppm requirement at retail really mean zero ppm at the refinery gate?” The results of the two test shipments of almost 300,000 barrels indicates a range of between 1 ppm and 7 ppm that ULSD must have to leave the refinery gate, Brown indicated in his presentation.

Of the 296,000 barrels that were shipped through all or part of Colonial’s main pipeline, which stretches from the Gulf Coast to New York Harbor, 154,000 barrels -- more than 52 percent -- was downgraded to a diesel fuel failing meet the 15 ppm specification.

The potential consequences range from “short-term supply disruptions,” as Brown and other industry officials warned, to a steep rise in diesel fuel prices to cover pipeline tariff increases and refiner expenses to produce a diesel fuel with lower sulfur content. Refiners were expecting to produce a fuel between 6 ppm and 8 ppm in order for it to meet the 15 ppm standard at the retail pump. Having to produce ULSD with lower sulfur content than expected may also force more refineries out of the on-road diesel business.

Brown noted that in addition to losses, “the sulfur content of [the] remaining ULSD was increased by” 6 ppm to 9 ppm, most of which occurred in tank farms in terminals along the way or at the end terminal. Between 1 ppm and 2 ppm was picked up in the mainlines, 1 ppm in the stublines and between 4 ppm and 6 ppm in the tank farms, Brown’s presentation revealed. Because Colonial does not deliver to the end distribution point, the diesel fuel would have additional steps, often one or more pipeline systems and terminals, before reaching the final customer, during which more sulfur contamination would likely occur, Brown warned.

Adding even more to the uncertainty for refiners, industry experts say no two tests of sulfur content of a given batch of fuel ever come out exactly the same. Colonial, which tested 1,500 samples as part of the test runs, found reproducibility ranging between 4 ppm and 6 ppm. So-called “round robin” sulfur testing using portions of the same sample of ULSD conducted by the American Society for Testing and Materials found a range of

between 6 ppm and 16 ppm, which is huge when the maximum sulfur content is set at 15 ppm.

The issue of reproducibility is crucial given such a narrow margin for error. EPA allows for a 2 ppm margin, meaning 17 ppm diesel will not be deemed failing to meet the ULSD standard. If a shipment of ULSD were to test at 15 ppm at the retail pump, even given just a 4 ppm range, another test could find the fuel is 19 ppm, and it would be rejected.

In addition to the issue of reproducibility, Brown also complained about how long it takes to get test results from the sulfur analysis equipment. "It is slow to react and tough to maintain. It is complicated equipment and takes five to 10 minutes to get results back." Brown also complained about delays in getting results from online equipment, which samples fuel directly in the pipeline.

Holmstead said EPA was just beginning to look at the problem and would be unlikely to have a proposed solution before a November workshop on ULSD issues scheduled to take place in New Orleans.

What is more, as Brown pointed out: "A little is a lot, and a lot is a little." If 10,000 barrels (420,000 gallons) of 15 ppm ULSD is contaminated with just 10 barrels (420 gallons), or 0.1 percent, of home heating oil, with a sulfur content of 5,000 ppm, it would add 5 ppm to the ULSD. It would only take 100 barrels (4,200 gallons), or 1 percent, of 500 ppm diesel fuel to raise the same 10,000 barrel batch of ULSD 5 ppm.

Even after these two tests, and two others that were done a few years earlier, Brown said: "We won't have a complete understanding of this [diesel] rule until we get into it and get our feet wet. It is going to be very difficult." He noted that 70 to 80 percent of the contamination occurs in the pipeline interface, where mainlines branch off into other parts of the pipeline network. This includes branch lines that feed storage tanks and the manifolds that divert the fuel to the various tanks. Brown emphasized the two tests were given the "white glove treatment," which would be hard to maintain day in and day out.

Brown advanced various theories why so much of the fuel was contaminated. The 154,000 barrels that did not meet the specifications were found to have sulfur content of 20, 30, 40 ppm. Larger diameter pipelines contribute more contamination. The more piping, pump stations and dead sections of pipe the greater the chance of excessive contamination. Also low spots in pipes, tanks and manifolds may lead to inopportune sulfur accumulation.

#### **49. Navistar Urges Rethink Of 2007 Diesel Emissions Rules**

Truck maker Navistar International Corp. has said it may ask the US Environmental Protection Agency to rethink stricter diesel emissions standards set to take effect in 2007-2010. Dan Ustian, the company's chairman, president and chief executive officer, told the Reuters Autos and Manufacturing Summit there might be a way to meet the spirit of the regulations while making the standards more business friendly.

"In my mind, I don't believe the trucking industry has presented to the government answers that can meet the intent of the EPA regulations and perhaps live within some

better corporate environment for costs," Ustian reportedly told the summit, held in Detroit. "Maybe just a little relief would make a big difference."

He said the company is waiting for data to bolster its case, but plans to press ahead regardless of who wins the US presidential race this autumn.

Ustian noted the new standards will be applied only to emissions from new engines. "But we have technologies that will hit all the old products out there, that will have 20 times the effect on clean air," he said.

He reportedly said the company may propose retrofitting its older engines while using the latest technology in its new engines.

The upcoming emissions standards will apply to nitrous oxide, a component of acid rain, as well as particulates, which have been linked to respiratory ailments.

Ustian also said he expects truck orders to remain strong until 2007. He noted truck tonnage remains strong and some of the orders the company has received cover two or three years.

He reportedly said he does not expect a large order surge ahead of the new emission standards, as occurred in 2002, because truckers should have more time to test the newest technology.

## **50. Are Diesel Cars in US Future?**

Soaring U.S. gasoline prices may have some U.S. consumers taking a closer look at diesel cars, but few auto industry executives expect a wholesale rush to diesel any time soon. Despite the higher fuel efficiency of diesel engines, stricter U.S. emissions standards coming in 2007 could dampen demand, according to executives at Reuters Autos and Manufacturing Summit in Detroit. Carmakers also are concerned that Americans may still associate diesel with models in the early 1970s that were noisy, smelly and hard to start in cold weather.

Speculation about diesel car sales in the United States has largely been spurred by their popularity in western Europe, where roughly 45 percent of all new cars are fueled by diesel engines. In North America, diesel engines currently account for less than 1 percent of the light new vehicle market.

The U.S. Department of Energy sees use of diesel engines in light vehicles increasing between 4 percent and 7 percent by 2012. While the numbers aren't huge, executives are encouraged the climate is improving.

Diesel engines also have continued to be popular in U.S. pickup trucks over the years. And the latest car and SUV models with diesels have proven popular.

Volkswagen AG estimates about 10 percent of all the new cars its sells in the United States are now diesel.

DaimlerChrysler AG said last week that its new Mercedes E320 model met its 2004 sales target of 3,000 units in the first five months on the market. It also has high hopes for a Jeep Liberty SUV with a diesel engine that will be introduced in November.

Diesel supporters note low-sulfur fuel required by the U.S. government in late 2006 will help cut diesel emissions, making diesel a more viable option.

Diesel engines currently are only sold in 45 states because they don't meet requirements for nitrogen oxide. The more stringent emissions standards, now effective in California, New York and three other states, will be extended nationwide in 2007. It's unclear yet whether those standards can be met in a cost-effective way.

Many car executives said they are concerned that the economics of diesel are less favorable in the United States than in Europe, making it harder for consumers to justify the higher cost of a diesel engine.

### **51. Canada To Amend Sulfur In Diesel Fuel Regulations**

Proposed amendments to the federal Sulfur in Diesel Fuel Regulations were published in Part I of the Canada Gazette on October 2, 2004. The proposed amendments introduce limits for sulfur in off-road, rail and marine diesel fuels aligned with the levels and timing of requirements passed by the U.S. Environmental Protection Agency in June 2004.

The proposed amendments set sulfur limits as follows:

- \*initial limit of 500 mg/kg for off-road, rail and marine diesel fuels in June 2007;
- \*final limit of 15 mg/kg for off-road diesel fuel in June 2010; and
- \*final limit of 15 mg/kg for rail and marine diesel fuels in June 2012.

The Sulfur in Diesel Fuel Regulations set a maximum limit of 15 mg/kg for sulfur in on-road diesel fuel (starting June 1, 2006) that is produced or imported for use or sale in Canada and for on-road diesel fuel that is sold or offered for sale. (Until 2006, the limit is 500 mg/kg.)

The proposed standards respect Canada's policy of aligning engine emission and fuel quality standards with those in the United States and matching the levels and timing for reducing sulfur levels specified in the U.S. Clean Air Non-road Diesel Rule, it said. "Matching the time frame proposed in the U.S. rule is considered the best approach. Given the long lead times needed to design and install the required desulfurization equipment, earlier adoption of the standards could be technically difficult and lead to higher than necessary compliance costs," it said.

Canada will not adopt an emissions trading system like that proposed in the U.S. rules, the department said. A trading system would create inconsistencies in the supply of lower-sulfur fuel across Canada, and administering the system would be complex and burdensome, it said.

The department concluded that implementing the more stringent standards would lead to "significant" reductions in sulfur emissions from off-road vehicles, but did not specify what size of reductions it expects could be achieved.

The proposed amendments are part of the federal government's 10-year Federal Agenda on Cleaner Vehicles, Engines, and Fuels, introduced in February 2001.

They follow the July 2002 finalization of the Sulfur in Diesel Fuel Regulations, which set limits for fuel for on-road vehicles. Environment Canada also proposed in May 2004 regulations to limit emissions from diesel-powered, off-road vehicles used in the construction, mining, farming, and forestry sectors.

The department also finalized in November 2003 regulations restricting emissions from small, gasoline-powered engines in equipment such as lawn mowers, chain saws, and snow blowers.

The latest proposed amendments would, effective June 1, 2007, reduce allowable sulfur levels in diesel fuel produced or imported for use in Canada to 500 milligrams per kilogram from the current limit of 2,400 milligrams per kilogram. They would extend the new limit to all fuels sold or offered for sale, effective Oct. 1, 2007.

The amendments would further reduce allowable sulfur levels in diesel fuel produced or imported for use to 15 milligrams per kilogram, effective June 1, 2010, and extend the limit to all fuels sold or offered for sale, effective Sept. 1, 2010.

The regulations would maintain sulfur levels for diesel fuel sold for use in locomotives or marine vessels at the 500 milligrams per kilogram limit, and would delay implementation of the 500 milligrams per kilogram standard for sales of diesel fuel in specified "northern" regions until Dec. 1, 2008, and the 15 milligrams per kilogram limit until Nov. 30, 2011.

## **52. Study By U.S. & Canada Lays Groundwork For Pacific Northwest Airshed Plan**

A study of Pacific Northwest air quality by the U.S. Environmental Protection Agency and Environment Canada provides scientific information that will help the two countries develop an international airshed strategy, the agencies said Sept. 28. The study, Characterization of the Georgia Basin/Puget Sound Airshed, describes air quality, movement of air, and transport of pollutants in the Puget Sound region in Washington and the Georgia Basin area in British Columbia, the agencies said in releasing the study Sept. 28.

The regional airshed comprises two airsheds, the summary said. The Georgia Basin airshed encompasses the Georgia Strait, Vancouver Island, the southwestern British Columbia region in Canada, Whatcom County in northwestern Washington State, and the southern coastline of the Strait of Juan de Fuca in Washington. The Puget Sound airshed includes the Puget Sound counties south of Whatcom County.

The study focused on ground level ozone, fine particulate matter, and visibility.

Although emissions of pollutants from the on-road vehicle sector are projected to decrease over the next decade in both airsheds, emissions from the marine sector are

increasing, as are emissions from agricultural practices. Current levels of air pollution related to population growth, transportation, suburban development, and energy use "are reported to be causing impacts to human and environmental health and must be addressed," according to the summary. "The study found that there is sufficient transboundary airflow to transport airborne pollutants across the international boundary," which means the two countries will need to coordinate their approach to dealing with pollution in the region, the summary said.

### **53. EPA Air Chief Envisions GHG Cap, Eventually**

The Bush administration's top air pollution official has said that U.S. industries will likely face some form of regulation on greenhouse gases (GHGs) in coming years, noting that scientific consensus on the role of industrial GHG emissions in climate change is becoming more firm. But such regulation would not likely occur under a second Bush term or a John Kerry administration, said Jeff Holmstead, assistant administrator for the U.S. EPA's Office of Air and Radiation. Nevertheless, the senior air official's statement was significant because the Bush administration to date has adamantly opposed regulation of carbon dioxide (CO<sub>2</sub>), the most abundant GHG, preferring instead to promote voluntary reduction efforts.

"Unless there's some changes in the way the scientific community is going, there in some point in the future will be a carbon-constrained world," Holmstead said. Other experts say that world could include mandatory caps set by government or a cap-and-trade program like that being adopted by European countries as part of their Kyoto Protocol mandates.

Holmstead's comments, offered at an industry conference on coal's future as a fuel source, raised some eyebrows in an audience that consisted largely of mining and electric power industry officials. While some of the companies attending have heeded the Bush administration's call for voluntary CO<sub>2</sub> reductions, the prediction of additional regulation by a senior EPA official suggested the issue remains in flux.

Asked later to expound on his comments, Holmstead said he was providing an "observation" on the decisions that U.S. industries must face in the future. With natural gas prices trending upward, Holmstead said the nation will have to maintain reliance on coal as a primary fuel. As such, new coal-fired plants will likely face some constraints on GHG emissions over their 50- to 75-year lifespans, he said.

Holmstead noted that uncertainty about the government's direction on GHGs has "got to be frustrating for business people who are trying to anticipate" how their status will change in the future.

Some of the nation's largest coal users, most notably in the electric power sector, have fought congressional efforts to impose new mandatory GHG caps, such as those promoted by Sens. John McCain (R-Ariz.), Joe Lieberman (D-Conn.) and Jim Jeffords (I-Vt.). To date, the Bush administration has been one of industry's staunchest allies in that fight.



Still, some companies have moved on their own to address CO2 emissions, driven by the notion that voluntary efforts now may better prepare industry for more stringent government regulation in the future.

Entergy, one of the Southeast's largest power providers, in 2001 set a goal to hold its CO2 emissions to 2000 levels through 2005. Similarly, Cincinnati-based Cinergy Corp., which provides power to southern Ohio, northern Kentucky and much of Indiana, plans to reduce CO2 emissions to 5 percent below 2000 levels by 2012. Cinergy's much larger neighbor, American Electric Power Corp., has agreed to reduce or offset 10 percent of its CO2 emissions -- about 18 million tons -- between 2003 and 2006.

#### **54. Schwarzenegger To Require Mexican Trucks to Meet U.S. Rules**

California Gov. Arnold Schwarzenegger signed legislation Sept. 29 requiring heavy-duty diesel trucks entering California from Mexico or Canada to meet federal emissions standards. The bill (A.B. 1009) requires the California Air Resources Board, in consultation with the California Highway Patrol, to adopt regulations and implement an inspection program, by Jan. 1, 2006, that allows authorities to determine if foreign-registered commercial trucks comply with federal emissions standards.

Under the California law, any diesel-fueled commercial truck entering the state must provide evidence that the vehicle meets the standards for that truck's model year.

The bill, which was introduced by Assembly Member Fran Pavley (D), is aimed at ensuring commercial diesel truck traffic from Mexico does not hinder the state's clean air effort or pose a threat to Southern California communities battling serious air pollution problems.

Mexico's emission standards for heavy-duty diesel trucks are not as stringent as the current U.S. Environmental Protection Agency requirements. The Mexican government did not impose emission standards on diesel trucks until 1991. While the requirements have become more stringent over time, they still do not match current EPA standards.

In June, the U.S. Supreme Court ruled to allow Mexican trucks to operate in the United States without requiring a detailed environmental impact assessment.

At the same time, Schwarzenegger vetoed a closely watched air quality measure (A.B. 2042) that would have established baseline emission limits for the Ports of Los Angeles and Long Beach. In rejecting A.B. 2042, the governor said the measure capping port emissions at the 2004 level "will not reduce pollution in any way."

Assembly Member Alan Lowenthal (D), the author of the bill, and environmentalists that supported the measure, were disappointed with the governor's decision. Air pollution from the two ports constitutes about 24 percent of the pollution in the four-county South Coast Air Basin, according to Lowenthal. Diesel trucks operating within the ports' boundaries emit 47 tons of nitrogen oxides a day, ships add another 49 tons a day, and diesel-fueled equipment and trains serving the ports generate another 85 tons a NOx a day, he said.

**55. Gov. Schwarzenegger Introduces an Environmentally Friendly Hummer**

California Gov. Arnold Schwarzenegger has introduced an environmentally friendly Hummer. Criticized by environmentalists for owning a gas-guzzler, Schwarzenegger said during last year's recall campaign that he would convert one of his Hummers to run on hydrogen. The governor introduced the alternative recently — a hydrogen-powered Hummer custom-built by General Motors at his request. The governor drove the shiny blue SUV to a hydrogen fueling spot at Los Angeles International Airport to tout his \$100 million plan for a "hydrogen highway" of such stations.

Schwarzenegger was the first person to buy a Hummer, a civilian version of the military vehicle that caught the public's attention during the Gulf War.

Officials said the hydrogen Hummer needs to refuel every 50 miles (80 kilometers) and there are only about a dozen fueling stations across the state.

**56. House Focuses On U.S. Role In World Environmental Goals**

U.S. Rep. Earl Blumenauer Sept. 22 introduced a resolution (H. Res. 782) calling for a renewed U.S. commitment to improving access to safe drinking water and basic sanitation worldwide, the same day that the House Subcommittee on Asia and the Pacific held a hearing on "Asia's Environmental Challenges."

At the House International Relations subcommittee hearing, a panel of experts spoke about the severity of pollution in many Asian countries and steps that the U.S. government can take to help address those problems.

Blumenauer, a subcommittee member, was one of a handful of house members present at the hearing and used the occasion to question expert witnesses on what the United States could do to back up its pledge, made at the 2002 World Summit on Sustainable Development in Johannesburg, to join an international effort to reduce by half the proportion of people worldwide who lack access to safe drinking water and basic sanitation.

The panel of experts at the hearing described the severe pollution and ecological degradation that characterizes many parts of Asia and generally urged the U.S. government to offer more support for environmental programs in the region.

Ruth Greenspan Bell, a resident fellow at the Washington, D.C.-based think tank Resources for the Future, said that in a ranking of the world's cities according to the average levels of a range of pollutants, 13 of the dirtiest 15 are in Asia. She added that more than 500,000 infants in Asia die each year because of inadequate water supply and poor sanitation.

While environmental regulations in many Asian countries look good on the surface, she said, "there are huge gaps between aspirations contained in the laws and on-the-ground conditions," due largely to a lack of enforcement capacity.

One encouraging trend, however, is the growth of environmental activism and public-interest litigation in India, China, the Philippines, and at least a half-dozen other countries, she said.

To help, she concluded, the United States "should be providing robust support to the brave Asian environmental pioneers who are using these and other models to try to correct the dangerous practices that have damaged the air, water, and land, and created dire perils to human health."

Addressing China in particular, panelist Elizabeth Economy, director of Asian studies at the Council on Foreign Relations, outlined a number of specific steps the U.S. government could take to help "shape China's future environmental, political, and economic development." These included lifting a ban on U.S. Agency for International Development involvement in China; funding the Clean Energy Technology Export Initiative; removing restrictions on the Overseas Private Investment Corp. and the U.S. Asia Environmental Partnership; increasing funding for the Trade Development Agency; and enhancing existing efforts to promote the rule of law and environmental governance.

## AFRICA

### **57. Parliamentary Debate Begins On South Africa's First Clean Air Bill**

South Africa's Parliament has begun debate on a bill that is the country's first step toward establishing comprehensive clean air rules. The Air Quality Bill would set standards, regulate emissions, and enforce compliance. It calls for appointing regional and local air quality officers and for the most polluted areas of the country to be identified and brought under control.

The Air Quality Bill (B 62--2003) would replace the country's only existing air quality law, the Air Pollution Prevention Act of 1965, which officials acknowledge is out of date, as it sets no standards or targets for promoting cleaner air. If passed, the bill would provide the country with its first legally enforceable industrial air pollution limits by the end of the year.

The bill was delayed in February this year, after community and environmental organizations put pressure on the Department of Environmental Affairs and Tourism (DEAT) to strengthen it. Of particular concern were the discretionary powers afforded to the Minister of Environmental Affairs in matters such as the setting of standards and time frames for acquiring a new license.

## SOUTH AMERICA

### **58. Brazilian Energy Ministry to Submit Bill For Biodiesel**

Brazilian Mines and Energy Minister Dilma Rousseff announced Aug. 12 that the government would submit for congressional approval by November a law regulating the production and sale of biodiesel fuel. Rousseff made the announcement during a meeting with vegetable oil producers, who are also potential biodiesel fuel producers.

The new law would likely set down the specific taxes to be put on biodiesel as well as the tax breaks offered to producers to stimulate its output. It would also extend the regulatory powers of the National Oil Agency (Agência Nacional de Petróleo, ANP), the oil sector regulatory agency, to include biodiesel.

The Ministry of Science and Technology has set up a \$2.7 million fund to fund biodiesel research through the end of 2005. Money will be awarded to state universities doing biodiesel research and development in conjunction with vegetable oil producers, who will along with state governments provide co-financing.

In June, the Interministerial Executive Biodiesel Council (Conselho Executivo Interministerial de Biodiesel, Ceib), which President Luiz Inácio Lula da Silva formed last December to develop rules governing the production and sale of biodiesel fuel, authorized the nationwide sale on a voluntary basis by November of B-2 biodiesel, a mix of 2 percent biodiesel and 98 percent regular diesel fuel.

Rousseff told vegetable oil producers that the government's plan is to gradually authorize slightly higher-percentage biodiesel mixtures so that by 2009, B-5 would be on the market.

In Brazil, biodiesel fuel will be made from a chemically reacted mix of vegetable oil and renewable sugar-cane-based ethanol, a reagent needed to burn the oil.

### **59. Lima's Buses To Be Fueled by Natural Gas**

The Peruvian government is putting together a plan that will allow thousands of public transportation buses to convert to natural gas to reduce air pollution. Peruvian President Alejandro Toledo announced the plan during the Aug. 20 inauguration of a new plant that will supply Lima with natural gas from the Camisea gas fields.

The estimated cost of the plan is \$6 million, which is approximately half the amount needed to convert approximately 18,000 buses to natural gas. The buses will be converted into dual-fuel vehicles, which will allow them to run on natural gas and gasoline. A pilot program with Lima's municipal government is scheduled to begin in September and will initially convert 1,200 buses to natural gas.

The Finance Ministry decided in early August to exempt natural gas from the excise tax applied to fuels, which will make it much cheaper than gasoline or diesel. The average excise tax on a gallon of fuel is 60 percent of the pump price.

Lima's municipal government is implementing a new mandatory inspection system for vehicles that will take effect in September. A Spanish company won the bid to set up three inspection stations that will test noise and emissions levels, among other things. Buses will be reviewed twice annually, while cars will be inspected once.

According to the Ministry of Health, diesel emissions from vehicles in Lima are six times the internationally accepted standards.

The first lot of 100 new buses that run on natural gas will arrive in November.

## **60. Argentina Opens First Automobile Test Lab**

On September 7<sup>th</sup>, Argentine authorities unveiled the country's first laboratory for in-depth testing of emissions from new-model cars and said the facility would be enhanced in the coming months to meet U.S. Environmental Protection Agency's (EPA) and European Union standards. The laboratory, in the outskirts of Buenos Aires, includes an \$800,000 full-flow dilution tunnel to test emissions from diesel cars that was paid for with a World Bank loan. Now the government plans to spend an extra \$3 million to \$4 million to enhance the facilities and upgrade certification to match EPA's Federal Test Procedure (FTP75) and EU's Euro II standards.

New equipment to be added to the lab includes a 48-inch roll dynamometer to test vehicle emissions during a simulated drive cycle and a shed chamber to measure evaporative emissions.

Under Decree 779/95 setting regulations for Transit Law 24449, all cars sold in Argentina must meet standards based on the US test procedure, FTP75. However, until now the best test lab in the country could only carry out basic checks, and new models could only be fully tested abroad. Therefore, many Argentine automobile manufacturers would wait for models to be certified from foreign customers before releasing the vehicles to the local market. The alternative, for manufacturers unwilling to wait, was to send some units to Brazil for certification. Under Argentine regulations, four out of every 1,000 cars of each model must undergo emissions tests.

According to the automakers association ADEFA, which represents Argentina's 11 carmakers, a total 23,568 vehicles were made in the country in August, more than half for export. Major brands including Ford, General Motors, Peugeot, Fiat, Renault, Volkswagen, and Suzuki have plants in Argentina.

In a related campaign, the government is considering legislation to boost compressed natural gas (CNG) use in buses and trucks, a move it believes could help reduce air pollution by 23 percent by 2012. Already one out of every six vehicles runs on CNG in Argentina.

Also, this August a group of 50 senators presented a bill to promote the use of cleaner-burning biofuels, which contain vegetable oil and/or alcohol, through a series of tax breaks.

## **61. Venezuelan Officials Begin Testing Vehicle Emissions**

Venezuela's Environment Ministry (MARN) plans to test vehicle emissions at a number of locations across the country over the next few months as part of a campaign to pressure municipalities to enforce air pollution laws, according to Washington Sanchez, the head of the ministry's environmental supervision office.

Some vehicle inspections were already conducted in the capital city in early September. Officials in Caracas's largest borough, Libertador, checked emissions of 273 gasoline

and diesel vehicles at a toll plaza Sept. 9-10, Sanchez said. Emissions were evaluated against standards set in a 1998 decree titled Norms for Emissions from Mobile Sources.

Of the vehicles tested, 22 of 58 diesel vehicles and 46 of 215 gasoline vehicles were found to be in violation of the emissions standards. The drivers of vehicles that were in violation received only warnings, however. Authority over vehicle emissions was transferred from MARN to the municipalities as part of government decentralization reforms in the 1990s. Now, the ministry is trying to work with municipalities to enforce the standards, Sanchez said.

Many vehicles in Venezuela are highly inefficient, a situation that is exacerbated by the heavily subsidized price of gasoline, which retails for about 10 cents per gallon.

Sanchez said that MARN plans to carry out similar vehicle inspections in Carabobo, Anzoategui, Zulia, and Tachira states in an effort to push governments there to enforce emissions standards.

## ASIA-PACIFIC

### 62. China Sets Landmark Fuel-Economy Rules

The Chinese government has set fuel-economy standards on new cars, sport utility vehicles and vans for the first time. The regulations represent a broad effort by Beijing to address its soaring dependence on imported oil, a dependence that has helped lift oil prices around the world as producers have struggled to keep pace with rising demand.

The new rules coincide with growing difficulties in the last few months in China for multinational and domestic automakers alike, which find themselves stuck with large and growing inventories of unsold cars. After rising at a rapid annual pace of 70 percent since late 2001, auto sales peaked in March and have been falling since.

The government has been trying to forestall inflation by cooling the economy with a variety of administrative controls. China's state-owned banks have cut back sharply on car loans, and now finance fewer than one in 10 retail car purchases, down from one in three earlier this year. A government freeze on many new investment projects has hurt consumer confidence, too.

Volkswagen, which dominates the Chinese auto market with more than a quarter of industry sales, said in a statement that it "views China's new gas mileage policy as a positive step towards modern fuel economy and addressing the ecological impact of its rapidly growing car population and economy."

General Motors, which has the second-largest market share, said in a statement that while it still needed to study the final language of the rules, the company believed that all of its vehicles would comply at least with the first phase of the requirements next year.

The regulations actually received final approval on Sept. 2.

The rules set gas mileage requirements for cars, S.U.V.'s and minivans based on their weight. The Chinese standards for the first phase are similar to the averages for most cars now in the United States, with some improvements mandated for the second phase; the Chinese standards for minivans and S.U.V.'s are more stringent for the first phase and much more stringent for the second phase than what such vehicles now achieve in the United States.

Pickup trucks, a tiny share of the Chinese market, and commercial vehicles are exempt from the rules.

Toyota announced last week that it would begin assembling Prius gasoline-electric hybrid cars in China with its joint venture partner, the First Automobile Works Corporation, the FAW Group.

### **63. Strict Measures To Be Taken On Most Polluted Chinese Cities**

China is taking strict measures to upgrade the air quality of its ten most polluted cities, the State Environmental Protection Administration (SEPA) has announced. Construction projects that will increase pollutant emission in the targeted cities will be strictly controlled by local governments, said an official with the SEPA.

Recently the SEPA issued a circular on further preventing air pollution, calling on the ten cities to adopt effective measures to improve air quality.

According to an annual report on city environmental management released by the SEPA in July, the ten most polluted cities in China are Linfen, Yangquan, Datong, Shizuishan, Sanmenxia, Jinchang, Shijiazhuang, Xianyang, Zhuzhou and Luoyang. Most of them are located in central and west China.

The blacklist of the ten cities has aroused the attention of the local governments, the official said, adding that they have taken active measures to reduce the air pollution.

The SEPA called on the ten cities to set standards for air quality and mark out steps to meet them; to strictly control projects that will increase air pollution; reduce particulate matter pollution; to actively adjust energy structure and popularize clean energy; and to improve management of pollution resources.

### **64. Air Pollution Costing Indonesia US \$400 Million A Year: ADB**

Air pollution is costing Indonesia US \$400 million a year -- a figure which could increase tenfold by 2010 unless steps are taken to improve the environment, the Asian Development Bank said. In a statement announcing a US \$700,000 grant to help improve air quality in two Indonesian cities, the ADB said urgent measures were needed to cut hazardous urban pollution levels which are among the world's worst.

It said a combination of rapid urbanization and weak controls had made air pollution a significant urban health threat in Indonesia, more so for the poor, resulting in loss of productivity.

The ADB said it would select two cities from five major urban centers -- Bandung, Jakarta, Yogyakarta, Semarang and Surabaya -- to participate in a Japanese-funded program to improve pollution control frameworks.

The UN's Environment Program ranks Jakarta as one of the world's most polluted cities with airborne levels of lead, nitrogen dioxide, and particulates significantly higher than World Health Organization standards.

The ADB has already provided technical assistance to the Indonesian government for reducing vehicle emissions.



The grant, funded by the Japanese government, will be used to "improve the framework of urban air quality management and strengthen enforcement strategies" in Indonesia through the development of "strategy and action plans" that will include the training of local officials, the development of regulatory benchmarks, increased monitoring and testing activities, and public awareness programs, according to ADB's technical assistance report for the project.

Under the second phase of the initiative, city governments will draw up "investment plans for air quality improvement" designed to promote public and private sector spending on emission reduction equipment, air quality monitoring devices, and clean production technology, the report says.

International and local consulting firms will work with city governments throughout the project to "identify potential investment needs" in the pollution control sector, the report adds.

The project's main goal is to boost the enforcement of existing air quality regulations at all levels of the government.

### **65. Philippines Commits to CWI Engines for New CNG Transit Initiative**

Cummins Westport Inc. will supply 100 B-series compressed natural gas-fueled (CNG) engines for public transit buses in Metro Manila as part of the Philippine government's Natural Gas Vehicle Program for Public Transport (NGVPPT). These will be the first fleets of low-emissions CNG buses to be used in the country.

Philippine President Gloria Macapagal-Arroyo, on a 3-day China state visit, witnessed the signing of the supply agreement together with Energy Secretary Vicente Perez. "We can significantly reduce our dependence on oil imports by making natural gas our fuel of



choice. It is not only indigenous, it is also a cleaner fuel," said President Arroyo when she unveiled her new energy agenda in August. She added that by 2005, the government expects 60 percent of the targeted 1,500 buses plying Metro Manila to run on CNG.

Secretary Perez said, "I am delighted to witness the purchase of the first batch of CNG buses today, which signals the final step towards the commencement of our natural gas public bus program early next year." Secretary Perez has personally pushed the introduction of buses running on cleaner, cheaper and indigenous natural gas.

The Department of Energy will accelerate incentives for NGVPPT fleet participants and will support building the necessary refueling infrastructure. President Arroyo has directed government financial institutions to extend financing to bus operators for the purchase of CNG buses. Fleet participants in NGVPPT include local bus operators HM Transport, Inc., NGV Adbus Corp., First CNG, Inc., Vergara, Greenstar Express, G-Liner, Pascual, and RRCG Transport Systems Co., Inc. Several other bus operators are expected to follow shortly.

"This marks a major milestone for CWI's expansion into Southeast Asia, and the Philippines has all the criteria of our key markets," said Steven Chapman, Chairman of CWI's Board of Directors and Cummins Vice President - International and General Manager, International Distributor Business.

"Our mission is to provide clean, sustainable transportation for the world's cities. We are encouraged by President Arroyo's vision for energy independence and commitment to clean air and the environment. CWI's successful partnership with Chinese OEMs offers the Philippines an economically viable yet environmentally-friendly solution to their energy independence and transit needs."

Chinese bus manufacturers led by Anhui Ankai Automobile and Zhengzhou Yutong Company will supply the new buses. Over 2000 CWI engines have been operating successfully throughout China since 1999. The engines will be manufactured in Cummins' joint-venture engine plant in Rocky Mount, North Carolina, USA and will be supported through Cummins Sales and Service Philippines.

Cummins Westport Inc., a joint venture of Cummins Inc. and Westport Innovations Inc. develops and markets low-emissions, alternative fuel engines manufactured by Cummins.

## **66. UNEP Promotes Environmental Management, Clean Energy in Asia**

The United Nations Environment Program (UNEP) signed Aug. 18 in Tehran a memorandum of understanding (MOU) with 10 central Asian countries that aims to promote the use of clean energy sources and boost environmental management across the region. UNEP Executive Director Klaus Toepfer signed the collaboration agreement with Ashkat Orazbay, secretary-general of the Economic Cooperation Organization (ECO), which groups the governments of Iran, Pakistan, Turkey, Afghanistan, Azerbaijan, Kazakhstan, The Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.

Under the pact, the two sides will collaborate in increasing the use of renewable energy in Central Asia, as well as strengthening environmental legislation and boosting monitoring and assessment, UNEP said in a statement.

The MOU also calls for stronger links between policymakers and the scientific community, and the further development of the Regional Environmental Action Plan for Central Asia, which UNEP and central Asian governments began work on in 2000. The plan attempts to outline solutions for several priority environmental issues, including waste management, air and water quality, and land degradation.

Toepfer, who was in Tehran for a meeting of the Asia-Pacific Forum for Environment and Development, said in the statement that the growth and strengthening of intergovernmental bodies such as the ECO provided a "tremendous opportunity to give effect to the global goals made at forums such as the World Summit on Sustainable Development in Johannesburg." He also called on Asian governments to take further action to cope with the rapid growth of the region's middle-class by better advocating concepts such as "sustainable consumption" and the "life-cycle economy."

"The newly affluent in Asia must have access to zero-emission housing, to hybrid or fuel-cell cars, and/or clean transport systems, and to eco-friendly residential and commercial suburbs," he said.

### **67. China's Energy Crisis Blankets Hong Kong in Smog**

Hong Kong's air pollution hit a record high on September 14, with the index rising to over 200 for the first time since air quality monitoring was introduced in 1995. Doctors advised asthma sufferers and those with heart disease to stay indoors. Experts lay the blame for Hong Kong's worsening air pollution on China, which the World Health Organization says has seven of the world's 10 most polluted cities.

Most of the pollution cloaking Hong Kong is generated by coal-fired power plants and smokestacks from China's industrial south, as well as traffic fumes from the city's own congested streets.

China faces a chronic energy shortage and making the switch from coal-fired plants to cleaner fuel is costly and disruptive.

It is the second consecutive summer that factories have faced brownouts or managed power cuts. Residents have been urged to turn off their electricity-guzzling air conditioners despite the sweltering heat.

Double-digit growth in individual car ownership in the neighboring province of Guangdong compounds the problem.

In Hong Kong, the number of days a year when visibility falls below 8 km (5 miles) has risen from around 50 in 1993 to over 160 last year. Nearby Shenzhen and Macau have seen similar increases.

This week, pollution was worst near Hong Kong's airport, where planes took off and landed in an orange-tinged haze. One day in August, visibility in Hong Kong harbor fell

to as low as 550 meters (600 yards) and smog contributed to collisions on the water involving eight vessels.

The problem is set to get worse this winter when prevailing northern winds sweep the sulfur dioxide and other toxins belched out of China's smokestacks toward Hong Kong.

Hong Kong has taken several steps to reduce pollution in the past decade, including conversion of taxis to liquefied petroleum gas (LPG). Air pollution readings are taken hourly and are a regular feature of weather forecasts.

Electricity provider CLP Holdings, which steadily reduced its emission of pollutants in the 1990s, reversed progress last year by burning 50 percent more coal than in 2002 and cutting its use of gas, a cleaner fuel. Reserves in the South China Sea gas field on which it relied were overestimated, forcing it to burn more coal to meet rising demand here and in China but CLP said it would maintain a balanced fuel mix of coal, gas and nuclear in the long run.

To reduce regional air pollution, Hong Kong and the Guangdong provincial government have set a target to reduce emissions of sulfur dioxide in the Pearl River Delta by 40 percent by 2010.

#### **68. U.N. Notes Environmental Deterioration in North Korea**

Rising consumption and industrialization are taking a severe toll on the quality of North Korea's air, water, and forests, the United Nations Environment Program said in its first state-of-the-environment report on the country. The Democratic People's Republic of Korea: State of the Environment Report 2003, which was released by UNEP Aug. 27, singles out the degradation of forests as one of the most pressing environmental issues the country faces.

Produced by UNEP, the U.N. Development Program, and more than 20 North Korean state and academic agencies, the report notes that the quality and scale of the country's 8.2 million hectares (nearly 20.3 million acres) of forest cover has "decreased rapidly" in recent years due to drought, rising firewood consumption, and land conversion.

To tackle the country's growing environmental ills, the UNEP report proposed 16 projects to address North Korea's environmental governance gap, including establishment of a pollution monitoring system for the Taedong River, a pilot initiative for municipal wastewater treatment, and a survey of soil contamination from municipal waste fertilizing.

UNEP signed an agreement Aug. 26 with the North Korean government on a project that will use information technology to improve qualitative environmental assessment and monitoring, the agency said in a statement. UNEP officials said the report will help boost the government's environmental monitoring and assessment capabilities and highlights priority areas in need of investment.

The impacts of industrialization are evident in deteriorating air quality, mainly due to North Korea's dependence on coal to meet its energy needs, the report says. The country's reliance on coal has created "serious urban air pollution problems" that the report anticipates will grow worse. It predicts that energy demand will double from just

less than 48 million metric tons of oil equivalent in 1990 to 96 million metric tons by 2020. In addition, coal consumption will increase five-fold over the next 15 years, the UNEP predicted, emphasizing the "urgent need for clean coal combustion and exhaust gas purification technologies, energy efficiency, and renewable energy alternatives."

### **69. Japan Auto Sales Hit By Plunge In Truck Demand**

A sharp dive in sales of trucks and buses in Japan erased the effect of improved demand for passenger cars in September, pushing overall auto sales down 1.5 percent from the year-earlier month, data showed.

Total sales of new cars, trucks and buses including 660 cc mini-vehicles fell to 563,465 units as sales of full-sized trucks plunged 22 percent after a month of strong replacement demand the previous year to meet stricter emissions standards.

Demand for mini-vehicles rose 2.2 percent to 171,351 units for the 10th straight month of gains, the Japan Mini Vehicle Association said, thanks to new models such as Daihatsu Motor Co.'s Move Latte and a re-modeled version of Suzuki Motor Corp.'s flagship Alto car.

The mini-vehicle market has expanded 6.4 percent so far this year and is poised to set a record in 2004 thanks to an abundance of launches and facelifts to replace products that emerged five years ago when new safety requirements were introduced.

Suzuki, Japan's top mini-vehicle maker, posted a 10 percent rise to 52,131 units, while second-ranked Daihatsu saw a 2.6 percent up tick to 48,426 units in September.

Both have also benefited from an exodus of customers from scandal-hit Mitsubishi Motors Corp., which has seen sales slide by about half in each of the past five months.

While the popularity of minis had been pressuring sales of cars with engines of more than 660 cc and up to 2,000 cc, compact cars held their own for the second straight month with a 1.0 percent rise after a year of mostly double-digit falls.

Driven also by a 3.1 percent rise in full-sized cars, non-mini passenger vehicle sales grew 1.8 percent to 331,593 units, the Japan Automobile Dealers Association said.

Among the winners were Honda Motor Co. with a 9.5 percent jump and industry leader Toyota Motor Corp., whose sales grew 5.5 percent.

Nissan Motor Co.'s sales slid 8.8 percent despite the launch of the new Murano sport utility vehicle at the start of the month.

Japan's second-biggest auto maker aims to reverse the slide in the coming months with the release of five other models - including the Tiida compact - by mid-January.

Mitsubishi Motors saw no respite from the sharp sales slide since its past practice of recall cover-ups resurfaced this year. Its sales of non-mini-vehicles skidded 59 percent to just 5,382 units - fewer than Suzuki, which mainly sells mini-cars.

Mazda Motor Corp. expanded sales by 3.6 percent, while all four truck makers posted double-digit declines.

## **70. Polluted Beijing Races Clock to Clean Up Its Act**

On a crisp, clear autumn day, with Olympic officials heading to town to look at construction sites for the 2008 Games, China's capital is racing against time to hit its clean air target of 227 days this year. By the end of September, Beijing had registered only 175 such days, meaning it needs clear air in 52 of the last 92 days of 2004 to meet the mark, the China Daily reported.

Thick smog in early October and the onset of winter, when the temperature can drop to minus 20 degrees Celsius (minus four Fahrenheit), mean environmental planners have their work cut out.

"We are now facing great pressure to realize the goal," Cheng Ying, an official at the city's environmental protection bureau, was quoted as saying. "Smoke from burning coal is always a headache for the environment at this time of year."

Beijing's normally poor air, choked by car exhaust, factory emissions, and dust clouds, deteriorates when thousands of coal-burning heat plants and smaller domestic coal stoves are lit.

At the beginning of October, the city's skies were smothered by smog so thick it forced the rescheduling of two shows by a visiting French aerobatics team.

While Beijing succeeded in cutting coal use by boilers by 5 million tons last year, industrial coal use increased by 3 million tons in the same period, the newspaper said. "Therefore, total annual use of coal was only cut by 2 million tons to 26 million tons last year from 28 million in 1998, when Beijing officially launched its program to cope with air pollution," it said.

Improving air quality is critical to the city's huge drive to be ready to host the 2008 summer Olympics. China, already the world's fastest growing car and energy market, has earmarked US\$ 7 billion of its total \$37 billion Olympic budget to clean up the capital.

Pre-Olympic plans call for relocation of 200 polluting Beijing factories and treatment of more than 90 percent of sewage in the cities noxious canals by 2008. But time may not be on Beijing's side.

"Although some large-scale enterprises which discharge vast amounts of industrial pollutants have been gradually removed from the city, the pollution, described as being severe, is not likely to see a dramatic change in the short term," the daily said.

## **71. Lung Ailments Affect Two in Five in India's Polluted Capital, Says Report**

New Delhi's air pollution has caused lung ailments in two of every five people in this capital city of 14 million, according to a new government study. The pollution also is

harming people's livers, blood, and immune systems, according to a study commissioned by the federal Central Pollution Control Board, the Times of India reported. It said the board planned to improve air quality by lowering the allowed levels of pollution in industrial areas, bringing them to the same levels required in residential zones.

The findings were based on a questionnaire survey of 2,379 people and on the clinical examination of 1,270 people ages 20-75, the newspaper quoted board member Dr. B. Sengupta as saying. Those worst affected were taxi drivers, residents of the central New Delhi business hub, and those from poor families, according to the study carried out by the Chittaranjan National Cancer Institute.

Researchers compared the findings with those from a study in the Sundarban Islands, which lie in an eastern Indian river. The study indicated that New Delhi residents have two to three times more respiratory ailments, the newspaper said.

The high pollution levels have been reported despite a November 2000 Indian Supreme Court order, which forced the government to shift polluting industries out of the capital. It also ordered the government to switch from diesel to compressed natural gas in its buses and taxis, prompting pollution levels to drop significantly.

## **72. South Korean Bill Would Mandate 'Green' Purchasing for Public Entities**

South Korea's Environment Ministry announced Oct. 8 it had submitted a bill to the National Assembly that would require government agencies and state-owned enterprises to purchase environmentally friendly products whenever possible as part of a campaign to encourage green procurement in both the public and private sectors. Bill No. 170558 would enact the Law on the Promotion of Environment-Friendly Product Purchases by Public Organizations. It would come into force in the latter half of 2005 if it is passed by the National Assembly later this year, as is expected, according to ministry officials.

A nonbinding green procurement program in place for the public sector since 1994 has already had some success. Environmentally friendly products made up 31 percent of all public-sector purchases last year, according to the ministry. That percentage would increase to 86 percent, worth 1.8 trillion won (\$1.6 billion), in 2008 if the law takes effect as planned, the ministry said.

The law defines environmentally friendly products as those officially labeled as environmentally safe, including those made from recycled materials.

Currently, 48 central government agencies, 248 local government bodies, and 211 enterprises affiliated with central and local government agencies fall under the green procurement mandates of the new law. Large state-run monopolies, such as Korea Electric Power Corp., will be mostly heavily affected by the law, the ministry said.

## **73. General Motors and Shanghai Partner to Build a Hybrid Bus in China**

U.S. automaker General Motors Corp. said recently that it will build its first hybrid bus in China next year with its partner in Shanghai to promote the technology for cleaner, more fuel-efficient vehicles. GM and Shanghai Automotive Industrial Corp. will begin by developing one bus and test running it in Shanghai to see if it would be commercially viable in China, said GM's vice president of Environment & Energy, Elizabeth Lowery.

"We will see if there is opportunity for volume ... if there is an interest in this technology from the government," said Lowery.

The number of vehicles on China's roads is soaring, bringing a growing reliance on imported oil and worsening already severe air pollution. In response, foreign automakers are beginning to test some of their hybrid vehicles in China.

DaimlerChrysler AG has said it plans to test three hydrogen-fuel-cell buses in Beijing next year, and Toyota Motor Corp. said last month that it will assemble and sell its Prius model, a gasoline-electric hybrid, in China.

Although the bus will be built in China with Shanghai Auto, the key technology will not be shared with its China partner, and those parts will be imported from the United States, Lowery said.

According to GM, the buses could help save 40 percent to 60 percent in fuel and reduce some emissions by up to 90 percent.

However, it is unclear if the automakers can persuade the Shanghai government or any other city to purchase expensive hybrid buses.

There are already thousands of natural gas buses on the road in several Chinese cities, and the country has increasing access to natural gas, a cleaner option than diesel or gasoline buses. GM's partner Shanghai Auto also has a program to develop buses with natural gas.

## **GENERAL**

### **74. Eventual Global Agreement On Climate Policy is Foreseen**

Despite U.S. refusal to participate in the Kyoto Protocol and various degrees of resistance from other nations, consultants to the energy industry Sept. 20 said that in the long run, international climate change policy would become harmonized.

Michael Mondshine, vice president for climate change services with Washington-based Science Applications International Corp., said the changes envisioned under the Kyoto Protocol are moving toward reality in the United States and around the globe regardless of the opposition of the administration of U.S. President George W. Bush. Corporations that operate internationally are taking steps toward compliance because they have no choice but to conform to emerging international standards.

"Harmonization is inevitable," Mondshine said during a panel discussion at the Environmental Markets Association's 8th Annual Fall Meeting and International Conference. "The Kyoto/non-Kyoto dichotomy is only relevant in the very short term."

Mondshine said several drivers have emerged directing the regulated community and national governments toward harmonization under the Kyoto umbrella. He specifically pointed to:

- the ubiquitous nature of greenhouse gas emissions;
- increasing consensus on the science of global warming;
- increasing international trade in energy and energy-related products;
- emergence of sound emissions mitigation technologies; and
- emergence of least-cost control solutions.

Mondshine said another key factor was the multinational nature of many firms that would be covered under the protocol. Mondshine said large companies operating in multiple locations would have to adapt their operations to the new environmental regime and would likely take such steps globally rather than nationally. Some companies such as Eastman Kodak, Intel, British Petroleum, and United Technologies have made very public announcements about their intentions to permanently lower their emissions of greenhouse gases.

Aside from these driving factors, Mondshine said significant steps are being taken toward harmonization. He specifically pointed to the growth in greenhouse gas emissions trading and the development of new markets to accomplish such trading.

In addition, Mondshine said new linkages to emerging Kyoto-driven structures are emerging each month. He pointed to the likelihood of Norway, Canada, and Switzerland joining in the European Union's emissions trading scheme. In many cases, Mondshine said, there are linkages between nations that support Kyoto and non-Kyoto nations.

Finally, Mondshine predicted that the United States, which he described as the "800-pound gorilla" in this debate, would eventually ratify the Kyoto Protocol. While the official policy is negative, Mondshine said there were dozens of occurrences indicating commitment to the principles of the protocol. In that regard, he cited a recent U.S. government report pointing to linkages between fossil-fuel consumption and effects on plants and animals.

Richard Williams, a consultant with EOS Research and Consulting Ltd. in Toronto, said his firm has done climate change risk management research that suggests energy corporations will take steps to respond to the guidelines established under the Kyoto Protocol regardless of current regulatory uncertainty.

The research evaluated the financial sector's expectations for adopting Kyoto-style requirements. In that regard, he said the research evaluated the views of mainstream banks, the social investment segment of the financial community, and recent advocacy initiatives.

Williams said there were early indicators that the financial sector was concerned about the issue. For instance, several financial companies have had to deal with shareholder



resolutions on climate change. While none of these resolutions have found success, Williams said they captured the support of 18 percent of shareholders on average--a relatively large showing for a shareholder-driven corporate directive.

Williams said research showed that banks, insurance companies, and investment houses are increasingly expecting their operations and the operations of their clients to respond to the climate change issue.

This mentality is emerging from social investment organizations, which have grown rapidly during a period in which consumer investment has been slow. He specifically noted that in the United States, such investing grew rapidly between 1999 and 2002 and now represents 12 percent of all U.S. investing. While such investments were considered novel just a few years ago, he said they are now viewed as mainstream. Secondly, he said the study suggests that financial institutions have increasingly become concerned about their reputations with respect to climate change and would likely act on the issue.

Williams performed a related study of energy companies to determine their response. Looking at 11 companies seen as leadership organizations within their industries, Williams said the research determined the firms all were taking actions designed to identify and manage their greenhouse gas emissions. He said the research clearly indicated that in many cases, their actions were exceeding the expectations coming from the financial sector. Finally, he said the energy companies were concerned about their reputation with respect to greenhouse gases and were willing to respond.

Karin Ritter, coordinator of the air toxics and stationary source emissions program at the American Petroleum Institute, said the petroleum industry recognizes the need for quantifying and accounting for greenhouse gas emissions regardless of the current regulatory environment. Toward this end, she said, API and several related organizations have developed several resources to assist their members. A key tool is the "Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions," Ritter said. The guidelines, developed by API together with the International Petroleum Industry Environmental Conservation Association and the International Association of Oil and Gas Producers, were designed to help companies estimate, monitor, and report greenhouse gases and to promote consistency in such practices. Ritter said the guidelines, released in December 2003, have become a critical tool for the management and reporting of greenhouse gases and for regulatory compliance and emissions trading.

Ritter said an equally important tool is the "Compendium of Greenhouse Gas Emission Methodology for the Oil and Gas Industry." The compendium, which was revised and re-released last February, provides oil and gas companies with the full set of scientifically sound methodologies for estimating greenhouse gas emissions. The document also provides discussions of alternative estimation methods versus the preferred methods.

Finally, Ritter pointed to the SANGIA Software System as a valuable tool designed to bring the reporting guidelines and methodologies together to assist petroleum-industry professionals to develop their greenhouse gas inventories. Ritter noted that the software not only assists with scientifically sound methods for accounting and monitoring but also permits users to forecast, to set goals for improving energy efficiency, to develop strategies for cutting emissions, and to track progress toward emission-control goals.

## 75. Cost Seen as Major Barrier To Diesel Hybrid Cars

A car that can go 80 miles on a gallon of renewable fuel such as soy and canola would seem like an ideal solution to oil prices bumping around historic highs of \$50 a barrel. In fact, the technology already exists in the form of so-called diesel hybrid vehicles, which link a conventional diesel engine to an electric motor and battery to store unused energy for clean and quiet driving at lower speeds.

But automakers say such cars are unlikely to move out of the research lab any time soon, even as fuel efficiency becomes a must for more and more customers appalled by prices at the pump. The main problem is that diesel hybrid cars cost too much to produce - thousands of dollars more than petrol-electric hybrids like Toyota Motor Corp's Prius, which is a sell-out U.S. hit.

"Diesel hybrid is one possible propulsion system that we are researching and testing, but no one can say whether this is the path to the future," said Edith Meissner, a spokeswoman for German-American carmaker DaimlerChrysler. "It is certainly the most efficient method among the conventional powertrains ... but also the most expensive."

Standard diesel engines burn less fuel than petrol engines. Hybrid technology makes them even more frugal by letting cars run on stored electricity captured during braking and coasting.

But this lands a double whammy on costs. A diesel engine typically costs around 10 percent more than its petrol-driven cousin of similar power, even without the cost of adding an electric motor, batteries and the electronics to run them. A Toyota diesel hybrid truck that went on sale in November 2003, for instance, costs around \$10,000 more than its diesel-only version, a third more.

Whether consumers are ready to pay that kind of premium for super-efficient cars remains open. Toyota doesn't produce a passenger-car version of the diesel hybrid.

A Bernstein Research study estimated that hybrid cars able to go 20 miles on electric power alone would still cost 20 percent more than conventional cars, even if manufacturing volumes rose to 100,000 a year by 2010.

Fuel savings would recoup the price premium only after 300,000 miles - more than twice most cars' life expectancy.

Toyota, the Japanese carmaker that made petrol-electric hybrids a real hit, questions whether it is viable, practical or sensible to sell diesel hybrid passenger vehicles in the foreseeable future.

"Before adding a hybrid system to a diesel engine, we still think there's room for improvement in the diesel-only and gasoline-only engines in terms of fuel efficiency," a Toyota spokesman said.

Honda Motor Co Ltd, another force in hybrids, also played up the costs and played down the prospects of launching serial production of a diesel hybrid car.

General Motors, Ford and DaimlerChrysler all came up with fuel-sipping diesel hybrids in the 1990s under the U.S. government-backed Partnership for a New Generation of Vehicles, but never marketed them.

Still, some researchers think diesel hybrids could hold their own even against highly touted hydrogen fuel cells - widely seen as a candidate for powering a big portion of future cars, but which would need a huge energy infrastructure overhaul.

A study by the Massachusetts Institute of Technology's Laboratory for Energy and the Environment found that even with aggressive research, fuel-cell cars won't beat diesel hybrids on total energy use or greenhouse gas emissions by 2020. It also concluded that intense research on a diesel-engine hybrid could produce by 2020 a vehicle that is twice as efficient and half as polluting as petroleum engines - even if such engines achieve significant gains in efficiency and emissions reduction - and including emissions and energy used to deliver fuel and make vehicles.

Many carmakers are pressing on. "It is more difficult to hybridize diesel, but we are going to show that it is possible," Jean-Martin Folz, chief executive of Europe's number-two carmaker PSA Peugeot Citroen, told an industry conference in Frankfurt last month. A spokesman said PSA was working with two British firms to develop a diesel hybrid version of the Citroen Berlingo car, but had not yet decided whether to make it commercially.

## **76. Ford Challenges Honda For World's Cleanest Internal Combustion Engine**

Ford is challenging Honda for bragging rights about the world's cleanest internal combustion engine vehicle. The Detroit automaker claimed the accolade at the Bibendum Challenge in Shanghai, but a Honda official suggests the claim is premature. For seven years, Honda has held the honor with its compressed natural gas-fueled Civic GX, which EPA called "the cleanest car on earth" after it was first introduced in 1998.

Ford's claim is based on its 2.3-liter compressed hydrogen-fueled four-cylinder engine, which Ford and other sources contend meets strict federal Tier-2, Bin-2 emissions regulations. The engine, used in the Ford Focus, employs a lean NOx (nitrogen oxides) trap and, because it burns hydrogen, it produces virtually no carbon dioxide or other greenhouse gases. The only carbon emissions are caused by engine oil blow back; the small amount of engine oil that seeps past piston rings into the combustion chamber.

An internal combustion engine burning hydrogen is an ideal technology for coupling with a NOx trap, according to a source familiar with the technology. Because of the wide flammability range of hydrogen -- between 4 percent concentration and 75 percent -- an engine burning hydrogen can be run exceedingly lean, i.e. less fuel and more air. Running lean reduces the heat produced during the combustion cycle. This reduces the amount of nitrogen from the ambient air that, with the help of the high temperatures of combustion, combines with oxygen to form potent ozone precursors, nitrogen oxides.

Ford issued a press release headlined: "Ford Unveils World's Cleanest Internal Combustion Engine." While welcoming competition in air quality, an arena Honda has dominated, a Honda official believes the claim is premature. EPA, the federal agency

that certifies the emissions levels of any vehicle model sold commercially in the U.S., refuses to release the test data on Ford's hydrogen internal combustion engine (ICE). "Now certify it and put it on the road," the Honda official challenged Ford. "What a good day it is when automakers compete for emissions performance instead of only on engine performance as they have in the past."

In its press release, Ford says the engine could be produced in 12 to 24 months. A Ford official involved in the program said the company is looking for the "right customer," which would be a centrally based fleet with the capability of installing hydrogen refueling infrastructure.

Currently the Ford hydrogen ICE vehicle has some drawbacks, the Ford official concedes. Its 5,000-pounds per square inch (psi) on-board hydrogen storage tanks only provide the vehicle with a 125-mile range. Work is being done with a fuel tank manufacturing company on 10,000-psi tanks, but sources in the hydrogen community warn of the difficulty in designing and building fueling pumps capable of refueling at such a high pressure.

The press release hints at another challenge for Ford. Because the energy density of hydrogen is substantially less than that of gasoline -- 117,200 British thermal units (BTUs) per gallon -- and natural gas -- 81,700 BTUs per gallon -- it is more difficult to deliver the "gasoline-like performance," Ford is striving for. By volume hydrogen has about one-third the energy density of gasoline -- however, by weight it has three times the energy of gasoline (hydrogen is the lightest element).

Finally, the lack of a hydrogen refueling infrastructure is a huge barrier to hydrogen ICE technology, which could be commercially viable within a year, as Ford says. Ford officials argue developing the relatively low cost hydrogen ICE technology creates demand for a hydrogen infrastructure while automakers struggle with reducing costs for fuel cell vehicles, improving on longevity and the toughness of fuel cell stacks.

Another interesting point is raised by Honda. When driving a Civic GX in Los Angeles, the tailpipe emissions is at times cleaner than the ambient air. As the Honda official asked: "If you are already at ambient air [quality] where do you go?"

## HEALTH STUDIES

### 77. Study: Traffic Boosts Heart Attack Risk

People prone to a heart attack face triple their usual risk as a result of traffic, whether they are in cars, on bicycles or on mass transit, according to a German study. The researchers put most of the blame on polluted air.

Studies have long tied respiratory disease to air pollution. More recent evidence over the past decade shows that microscopic particles in the air also hurt the heart and blood vessels, probably even more than the lungs.

The researchers interviewed 691 heart attack survivors around Augsburg, a German city of about 260,000. They were questioned about their activities on the four days leading

up to their heart attack. The study discounted for the effect of hard exercise - as when bicycling - and for typical morning stress linked to heart attacks. The study participants had traveled largely in Augsburg, but also on some small-town and rural roads.

In the end, they were three times more likely to suffer a heart attack within an hour of driving, riding or bicycling than they were during their activities away from traffic. That would make traffic to blame for 8 percent of their heart attacks.

"We didn't expect it to be that strong," said lead researcher Annette Peters, at the GSF National Research Center in Neuherberg, Germany. "There are two things that are surprising: that the effect is so immediate - you see it in one hour - and then also the size." Previous studies have mostly suggested that pollutants cause gradual heart and circulatory damage over years of exposure. The invading particles may ratchet up the body's immune defenses, contributing to the blood vessel blockages of heart attacks.

However, the immediate risk seen in the German study may stem from the ability of tiny air contaminants to trigger a reflex that disturbs the heart's rhythm, researchers said.

Earlier studies have linked heart trouble to stress - the kind that commuters encounter daily in traffic. The German researchers acknowledged that stress and noise might have contributed to the higher risk of a heart attack, but they saw the effect even in the quieter, more relaxing setting of a bus or train ride.

Germany uses a lot of diesel fuel, and so its air pollution is somewhat different from that in the United States. EPA air pollution scientist John Bachmann said the risk might be different in magnitude in the United States but would still presumably be present. The EPA has been working to reduce particle levels since the early 1970s. The smaller particles from manmade sources - the size implicated in heart attacks - dropped by 17 percent nationally between 1993 and 2002, according to agency data.

In recent years, cardiovascular risk has joined respiratory damage as a rationale for the regulations, Bachmann said.

### **78. German Study Links Proximity to Industry With Allergies, Disease**

A study of mothers and school-age children in Germany's most industrial area, the Ruhr Valley, has shown a direct connection between residential proximity to industrial facilities, concentrations of toxic substances in the body, and rates of allergies and respiratory diseases, the North Rhine-Westphalian State Ministry of the Environment said Aug. 28.

Environmental Minister for North Rhine-Westphalia Baerbel Hoehn said it was the first time that the link was proved scientifically. The Department of Hygiene, Social and Environmental Medicine at the University of the Ruhr-Bochum carried out the study, Investigation of Environmental Medical Effects [Hot Spot Study], of German industrial "hot spots" Duisburg and Dortmund at the request of the ministry.

The study revealed high concentrations of coking-related toxins and their breakdown products in the body in residents of the northern area around Duisburg, where a coking plant was emitting high levels of benzene and polycyclic aromatic hydrocarbons. In the

southern area around Duisburg, where metal processing plants are located, subjects exhibited high levels of lead and cadmium.

The study found residents suffered from increased allergies and respiratory problems in an area in Dortmund near a steel plant.

In all three situations, the toxins' effects were clearly higher in the industrial residents than in rural comparison groups, the ministry said.

Hoehn said the study illustrated the importance of environmental protection for preventive health, particularly when it comes to suspected carcinogens.

### **79. French Study Links Benzene To Acute Leukemia in Children**

French researchers unveiled Aug. 19 a new study that shows potentially strong links between environmental exposure to benzene and acute leukemia, the most prevalent form of childhood cancer. The research, conducted by scientists at the French National Institute of Health and Medical Research (INSERM), suggests exposure to benzene may be a key factor in the development of some childhood cancers.

The study, published in the September issue of Occupational and Environmental Medicine, shows that children living near gas stations or automobile repair shops had almost four times the risk of contracting leukemia as children in a parallel test group.

The INSERM research compared occupational and environmental exposure data reported by mothers of 280 children suffering from acute leukemia in four French cities with that of an age-matched control group with no history of cancer. Mothers were questioned about their employment and housing conditions during pregnancy, as well as about the presence of gas stations or car repair shops in the immediate vicinity both during and after pregnancy. The questions were designed to determine whether exposure to benzene, an aromatic hydrocarbon found in gasoline and other fuels, could be responsible for childhood cancer cases.

Previous studies have linked occupational exposure to benzene, particularly among rubber industry workers, with acute leukemia in adults, albeit at daily doses much higher than under consideration in the new INSERM research.

The new study showed that 17 of the 280 cancer cases concerned children living in close proximity to a gas station or auto repair shop. Children living near such establishments were seen to be four times more likely to develop leukemia as children who do not live near these sites. Children living near gas stations and auto repair shops were seven times more likely to develop acute non-lymphoblastic leukemia, which is known to be caused by benzene exposure in some cases, than children who did not live near such establishments.

Finally, the research showed that the risk of developing cancers and leukemia grew for children who lived longer periods of time in close proximity to gas stations and repair shops.

The INSERM research found no clear link to potential occupational exposure encountered by mothers during pregnancy or the level of automobile traffic near their primary residence.

Researchers at INSERM cautioned that the research linking gas stations and auto repair shops to leukemia was preliminary, and insisted that more research would be needed to confirm that known carcinogen benzene may be responsible.

### **80. Finnish Study Links Diesel Exhaust Exposure With Ovarian Cancer**

Occupational exposure to diesel exhaust has been classified as probably carcinogenic and that to gasoline engine exhaust as possibly carcinogenic to humans. Earlier results concerning cancers other than lung cancer are scarce and inconsistent, and exposure-response relations have seldom been reported. This new study followed up a cohort of all economically active Finns born between 1906 and 1945 for 30 million person-years during 1971-1995.<sup>2</sup> Incident cases of esophageal cancer (n = 2,198), ovarian cancer (5,082), testicular cancer (387), kidney cancer (7,366), bladder cancer (8,110) and leukemia (4,562) were identified through a record linkage with the Finnish Cancer Registry. Occupations from the population census in 1970 were converted to exposures to diesel and gasoline engine exhausts with a job-exposure matrix (FINJEM). Cumulative exposure (CE) was calculated as product of prevalence, level and estimated duration of exposure. The relative risk (RR) of cancer for exposure categories in relation to the unexposed group was calculated using the Poisson regression model and adjusted for confounders. An increasing RR for ovarian cancer was observed with the increasing CE of diesel exhaust (p for trend = 0.006). The RR in the highest CE category was 3.69 (95% CI = 1.38-9.86). For gasoline engine exhaust, the RR was significantly increased only in the middle CE category (1.70; 95% CI = 1.11-2.62). Slight elevations of RR for bladder and kidney cancers were found at the lowest exposure level of engine exhausts, largely attributable to drivers. No effect of the exposures was observed for the other cancers. This study suggests an exposure-response relation between diesel exhaust and ovarian cancer.

### **81. New Study Shows Childhood Lung Damage From Air Pollution**

The Children's Health Study, which began in 1992, is a large, long-term, study of the effects of chronic air pollution exposures on the health of children living in Southern California. Children may be more strongly affected by air pollution because their lungs and their bodies are still developing. Children are also exposed to more air pollution than adults since they breathe faster and spend more time outdoors in strenuous activities.

About 5500 children in twelve communities were enrolled in the study; two-thirds of them were enrolled as fourth-graders. Data on the children's health, their exposures to air

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<sup>2</sup> Risk of esophageal, ovarian, testicular, kidney and bladder cancers and leukemia among Finnish workers exposed to diesel or gasoline engine exhaust, Johannes Guo 1, Timo Kauppinen 1, Pentti Kyyrönen 2, Pirjo Heikkilä 1, Marja-Liisa Lindbohm 1, Eero Pukkala 2, 1Finnish Institute of Occupational Health, Helsinki, Finland, 2Finnish Cancer Registry, Institute of Statistical and Epidemiologic Cancer Research, Helsinki, Finland

pollution, and many factors that affected their responses to air pollution were gathered annually until they graduated from high school.

The Children's Health Study Final Report is available and represents an extensive compilation of more than 10 years of community ambient air pollution measures and health outcomes related to lung function growth, asthma, bronchitis, and acute respiratory illnesses. Although the ARB funding support for the health portion of the study has concluded, the investigators have received a grant from the National Institute of Environmental Health Sciences to continue the program for an additional three years. The ARB will continue to work in collaboration with the CHS investigators through assistance with the monitoring network as they continue with this invaluable work.

The twelve communities in the study were chosen because they have different patterns of high and low levels of these four pollutants:

- Ozone
- Nitrogen dioxide
- Acid vapor
- Particulate matter that is breathed deep into the lungs (PM10, PM2.5)

Concentrations of the four pollutants were continuously measured in each community throughout the study and for brief periods in schools and some homes. In addition, each child's lung function was tested every spring. Annual questionnaires asked about the children's respiratory symptoms and diseases, such as chronic cough and asthma; level of physical activity; time spent outdoors; and many other factors known to influence children's responses to air pollution, such as parental smoking and mold and pets in the household.

#### Major Results of the Study

- Air Pollution Harms Children's Lungs for Life - children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed<sup>3</sup>.
- Children that were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide and particulate matter which are made up of very small particles that can be breathed deeply into the lungs.
- Children living in high ozone communities who actively participated in several sports were more likely to develop asthma than children in these communities not participating in sports.
- Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.

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<sup>3</sup> The Effect of Air Pollution on Lung Development from 10 to 18 Years of Age, W. James Gauderman, Ph.D., Edward Avol, M.S., Frank Gilliland, M.D., Ph.D., Hita Vora, M.S., Duncan Thomas, Ph.D., Kiros Berhane, Ph.D., Rob McConnell, M.D., Nino Kuenzli, M.D., Fred Lurmann, M.S., Edward Rappaport, M.S., Helene Margolis, Ph.D., David Bates, M.D., and John Peters, M.D.



- Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.
- Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness.
- Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.

While emphasizing risks, the study also pointed to a way to improve public health, according to C. Arden Pope III, an economics professor at Brigham Young University who wrote an editorial that accompanies the findings in the *New England Journal*. "From at least one perspective, the overall results of research involving air pollution are good news - the control of air pollution represents an important opportunity to prevent disease," Pope said.

According to a policy brief released Wednesday by the USC Urban Initiative, roughly 4 million children currently live in areas of the Greater Los Angeles region where the air remains polluted at least part of the year. Five million more children are expected to be born between now and 2021, the latest deadline set by the U.S. Environmental Protection Agency to clean the area's air.

Strict clean air laws have greatly reduced smog, particularly in coastal areas of Southern California, but serious pollution remains a regular occurrence inland as well as in areas subjected to heavy truck traffic. Because the findings suggest that the threat to children posed by air pollution may be greater than scientists and health officials had suspected, the research is likely to lead to calls for tougher environmental regulations.

## **82. Particulates Cut Lifeguard Capacity During The Course Of 12-Hour Day**

To study how soot and smog damage people's lungs, scientist Sharon Petronella, an assistant professor in the department of pediatrics at the University of Texas Medical Branch at Galveston, hits the beach. Her test subjects aren't lab rats, but lifeguards.

For the past two years, Petronella has studied how lifeguards' lung capacity and ability to expel air change when a long day on the beach is made more difficult by dirty air. This summer, 86 of Galveston's 105 lifeguards participated.

"It's the first time we've done anything like this with a real-life group, where we are measuring lung function with air quality," said Petronella, who began the study with high school soccer players but decided they didn't spend enough time outside. Lifeguards make the perfect study population. They're all in shape. Most don't have any lung-damaging habits such as smoking. And they're outside as much as 12 hours a day turning the beach into a real-world laboratory.

Three times a day, from June to the start of the school year, Petronella asks the lifeguards to breathe into various instruments. One calculates the volume of air their lungs can hold. The other tests how well air leaves the lungs.

By comparing the results of tests at the start of the work day with those taken after 12 hours sitting in the tower and using local air quality data, Petronella has determined that the lifeguards' lung capacity diminishes with exposure to particulate matter tiny particles emitted by diesel engines and fires and formed by factory emissions.

Petronella didn't see as strong an effect with ground-level ozone, but that pollutant is likely dispersed by sea breezes.

The explanation for the lungs' shrinkage is likely inflammation an effect that would be worse for other groups.