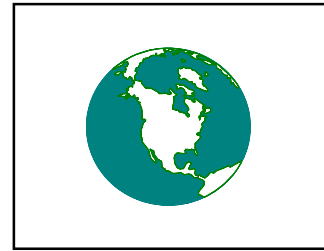


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CAR LINES

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Average Specific CO₂ Emissions Of New Passenger Cars Relative To 1995, For Each Association And The European Union

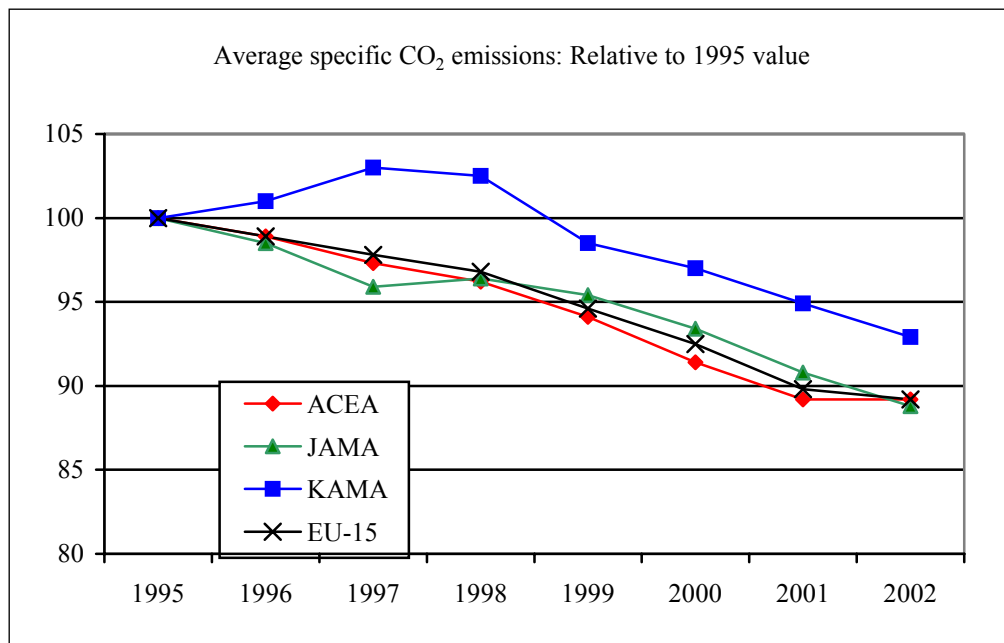


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EUROPE

1. Germany's States Debate Key Green Issues

Germany's state environment ministers have agreed to form an alliance to slow the rate of land development for housing or transport infrastructure. At their latest biannual conference ministers also discussed greenhouse gas emissions trading, diesel vehicle emissions and chemicals policy.

On emissions trading, delegates welcomed federal environment minister Jurgen Trittin's decision that the allocation of carbon dioxide (CO₂) trading permits would be agreed through the normal legislative process with the participation of both parliamentary houses. Ministers agreed that the net effect of emissions trading must not commit industry to greater CO₂ cuts than existing voluntary agreements.

Delegates appealed for a further step in emissions control for diesel cars and light duty trucks to succeed the 2005 Euro IV EU standards. Earlier appeals to German car manufacturers to fit diesel particulate filters to new cars as standard were repeated. Environment ministers' call for the state to subsidize filters through road tax breaks has yet to be cleared by the European Commission.

2. EU Environment Agency Reports On Record Ozone Levels

High air temperatures and atypical meteorological conditions during the summer of 2003 were the main causes of record levels of air pollution in European countries, an Oct. 24 European Environment Agency report said. The number of hours per monitoring station when air pollution

levels exceeded EU thresholds was higher during April-August 2003 than recorded in any year since EU directive 1992/72/EEC went into effect requiring EU states to produce national air pollution reports. The report measured air pollution levels in the 31 European countries, including the 15 EU states, and included information gathered from 1,805 monitoring stations, 1,624 of which were within the EU.

The 1992 directive calls on EU member states to inform the public about air pollution levels when one-hour average ozone concentrations exceed 180 micrograms per cubic meter (μm^3). The report said this threshold was exceeded in 23 of the 31 countries supplying data, and on 137 of the period's 153 days, that is, 89.5 percent of days monitored. Not only did exceedences occur for a record number of hours, average exceedences lasted 3.5 hours--the longest average recorded since 1995, the report said. A total of 1,220 stations (67.6 percent) reported at least one exceedence during the measured period, the report said.

The areas with more than 10 information exceedences in 2003 covered mainly southwest Germany, Switzerland, France, Belgium, northern and central Italy, and central Spain, the report said.

A directive also sets a second threshold for exceedences, requiring countries to issue public warnings when pollution levels surpass 360 (μm^3) during one hour. The report said there were four warning-level exceedences in 2003.

A new directive, 2002/3/EC, repealed the 1992 directive Sept. 9 and replaced it. The new directive sets the same level for informing the public of exceedences but lowers the warning level to 240 (μm^3) over a three-hour average. The new directive will be used to calculate summer smog levels in 2004.

Though the warning threshold now has to be exceeded for three consecutive hours rather than just one, as was the case in the old directive, the trend in increasing exceedences is likely to continue without additional, significant cuts in precursor pollutant releases.

In addition to the 15 EU members, nine nations joining the EU in May 2004 plus countries including Norway, Switzerland, and Romania provided the EEA with air pollution exceedence information at the EEA's request. The EEA, the EU's environmental information hub, is actively trying to make its data more comprehensive by including information from various non-EU European countries.

3. Nervousness Emerging Over Europe's Car CO₂ Cuts

A cloud is starting to hang over the EU's voluntary agreement with car makers on cutting carbon dioxide (CO₂) emissions in the run-up to crucial reviews of the deal. Any failure would spark calls for EU regulation of car CO₂ emissions.

Earlier this month German daily Handelsblatt claimed internal papers from EU car makers' association ACEA showed that only French manufacturer PSA would meet the deal's key target, that by 2008 average new car CO₂ output should be no more than 140 grams per kilometer (g/km). Furthermore, reported Handelsblatt, sources in an unnamed German car maker regarded the EU's supplemental goal of cutting average new car emissions to 120g/km as impossible.

An ACEA spokesperson dismissed a report dated 17 November in trade paper Automotive News Europe quoting ACEA chairman Louis Schweitzer as saying that the target of 120g/km was

not practical. Mr. Schweitzer was not talking in his capacity as ACEA president, the spokesman maintained.

The signs of nervousness over the deal's health come just as the latest annual report is emerging. For the first time official EU CO₂ monitoring data are used for calculating the 2002 figures. In the past the associations have provided the underlying data.

The main findings for the reporting period 1995 to 2002 are:

- In 2002 the average specific CO₂ emissions of the fleets are 165 g/km for ACEA, 174 g/km for JAMA and 183 g/km for KAMA.
- Compared to 2001 all three associations reduced the average specific CO₂ emissions of their cars registered for the first time on the EU market (ACEA by about 1.2 %, JAMA by about 2.5 % and KAMA by about 1.8 %). The fuel efficiency improvements for diesel passenger cars are clearly better compared with gasoline vehicles.
- JAMA and ACEA show good progress, although ACEA's 2002 performance is lower than in the previous years. However, ACEA already reached in 2000 the intermediate target range envisaged for 2003, and is now at the very low end of this range. JAMA achieved in 2002 the upper end of the intermediate target range. Both associations can be considered to be on track.
- KAMA's progress is still unsatisfactory, although it has been catching up slightly in the last 2 years. There is a real risk that KAMA will not meet its 2004 intermediate target range of 165 to 170 g/km, seeing that only two years are left to close the gap of

13 g/km. This could affect the whole approach on CO₂. However, KAMA has reconfirmed its commitment to meet its targets.

- In order to meet the final target of 140 g/km additional efforts are necessary, as the average annual reduction rate of all three associations needs to be increased. On average the reduction rate must be around 2 %, or about 3.5 g/km per year 1995-2008/9. In the years remaining until 2008/9 the reduction rates must be on average 2.5 % for ACEA, 2.8% for JAMA and 3.4 % for KAMA.

German environment minister Jurgen Trittin has called for EU legislation to force car manufacturers to reduce average new vehicle carbon dioxide emissions to 120 grams per kilometer (g/km) by 2012. Mr. Trittin's comments followed a presentation by environment commissioner Margot Wallström confirming that European motor industry group ACEA had told the Commission the 120 grams target was unachievable.

Ms Wallström waved away Mr. Trittin's call for immediate legislative action, suggesting ACEA could be playing down their chances of meeting the benchmark in a bid to get the figure revised. "I think they said the same about the intermediate target [which the industry in fact met]," she told reporters after the final Council meeting of the year.

Earlier she told ministers that EU governments and MEPs would have to "show clear signs of willingness to take difficult decisions on fiscal measures and labeling" of vehicles' fuel economy and carbon dioxide (CO₂) emissions if it did turn out the target could not otherwise be met. The Commission will

begin "in-depth discussions" with car makers in the new year on how to proceed. This will feed into a broader mid-term assessment of the agreement, due from the European Commission in the first half of next year. Not only the deal itself but also a significant portion of the EU's overall commitment to cut greenhouse gas emissions is riding on a positive result.

4. EU Falling Short On CO₂ Reduction Goals

The European Union will not meet its Kyoto Protocol greenhouse gas reduction target unless new measures are adopted, including taxes designed to reduce carbon dioxide (CO₂) emissions in the transport sector, the European Commission said Dec. 2. In its fourth annual report, the European Commission said 13 of 15 EU member states are behind in meeting their individual national greenhouse gas commitments. As a result, under a "business as usual" scenario, the European Union will exceed its Kyoto target by 7.5 percent. The EU is legally bound to reduce CO₂ emissions 8 percent in 2012 based on 1990 levels under the Kyoto Protocol. As of 2001, the EU had reduced carbon emissions 2 percent from 1990 levels.

"The figures in the report show that the policies and measures taken in the member states so far will not be enough," said Environment Commissioner Margot Wallström. "This is serious. Time is running out." Wallström said that if the EU and member states do not put in place measures to reduce carbon emissions over the next two or three years, the Union will not be able to meet its Kyoto target. "This year's projections of greenhouse emissions for the EU in 2010 show considerably higher emissions than the projections of the

previous year," Wallström added. "This is largely due to Germany revising its former projections and now predicts it will marginally miss its commitment with its existing policies and measures."

The report also said EU greenhouse gas emissions edged up 0.3 percent between 1999 and 2000 and another 1 percent between 2000 and 2001. In 2001, the latest year for which figures are available, EU greenhouse gas emissions were 2.3 percent below 1990 levels.

As a result of the poor performance by EU member states, Wallström said she has written letters to 13 of 15 EU environment ministers warning that they need to take action. The Commission singled out Spain for the most criticism, saying Spain is on a path that would exceed by 33 percent its national allocation of greenhouse gas emissions. Based on an EU burden-sharing agreement reached in the 1990s, the more advanced industrialized EU member states--such as Denmark, Germany, the United Kingdom, Luxembourg, and the Netherlands--must reduce their CO2 emissions to a much greater degree than countries such as Spain, Greece, Portugal, and Ireland.

Under the EU burden-sharing agreement, Spain is allowed to increase its emissions 15 percent by 2012 based on 1990 levels. However, Spain's carbon emissions in 2001 were 32.1 percent above 1990 levels, the Commission said. In a letter to Spanish Environment Minister Maria Elvira Rodriguez Herrero, Wallström outlined her concerns about the Spanish trend. "This wide divergence is as much a concern to me as it must be to you," Wallström said in the letter. "Furthermore, the emission projections as reported by Spain suggest that with existing policies and measures alone, Spain will miss its burden-sharing

commitment by as much as 33.3 percent. This is clearly a serious situation."

Wallström added that "unfortunately, a number of other member states are in a similar position." Of those, Denmark is actually on a path to exceed even Spain as the country most in excess of its burden-sharing commitment. However, based on the burden-sharing agreement, Denmark has one of the most demanding commitments, as it must reduce its emissions 21 percent below 1990 levels by 2012.

Ireland is another EU member state that is allowed to increase its emissions based on the burden-sharing agreement, but it is still on a path that would overshoot its target by 26.8 percent. After Ireland comes Austria, which is projected to overshoot its emission-reduction target by 24.5, followed by Belgium at 22.9 percent, Finland at 16.5 percent, Portugal at 14 percent, the Netherlands 12 percent, Greece at 10.7 percent, Italy at 10.2 percent, Luxembourg at 5.6 percent, and Germany at 1.3 percent.

Only the United Kingdom and Sweden are on a path to meet their burden-sharing target, the Commission said. In the case of Sweden, however, it is allowed to increase its emissions because it is phasing out nuclear power.

To reverse the trend toward rising greenhouse gas emissions, Wallström made the following recommendations to EU member states:

- Stick to plans to introduce an EU emissions trading scheme by 2005.
- Update national policies and measures within the next 12 to 18 months.
- Include more substantive information in projections on the

planned use of the Kyoto Protocol's flexible mechanisms, which allow industrialized countries to gain credit toward meeting their CO2 emission-reduction goal through such things as carbon sequestration and investment in climate change reduction projects. According to reports, a broad consensus now exists within the Council for linking with the clean development mechanism from 2005 and with joint implementation from 2008, for there to be no cap on the number of project credits that can be sold into the trading scheme, and for project accounting rules to be no stricter than the rules agreed under the Kyoto protocol itself.

In addition, Wallström said the Commission will "identify in the coming year additional measures on an EU level that are needed to meet our Kyoto targets."

The good news for the Commission is that all but one of the 10 member states due to join the European Union in 2004, most of which are in Eastern Europe, have emissions below their 1990 levels. The lone delinquent is Slovenia. Most of the new EU member states benefited from a big decline in emissions after the fall of the Iron Curtain in the late 1980s.

Concerning the transport sector, where EU emissions have been increasing the most, the Commission said that in 2001, carbon dioxide emissions were up 20 percent from 1990 levels. To reverse this trend, Wallström said she believes new energy taxes will be the most effective instrument. "Emissions trading would not be effective in the transport sector because the sources are so diffuse," Wallström said. "It is not like

stationary sources of greenhouse gas emissions. Taxes are definitely the best measures, and we will make proposals in the new communication due in 2004."

5. Swiss Fuel Tax Aims to Cut Sulfur Emissions At New Year

A new regulation imposing a tax on fuels with a sulfur content of more than 0.001 percent (10 ppm) will enter into force in Switzerland on Jan. 1, 2004. According to the Swiss Federal Department of Environment, Transportation, Energy, and Communications (DETEC), the tax will be levied at 3 Swiss centimes per liter (about 8.3 cents per gallon) for both gasoline and diesel fuel with a sulfur content above the prescribed limit.

DETEC, however, said the impact of the tax would be minimal, since fuel suppliers to the Swiss market already were selling fuel that complies with the sulfur norms. "It is expected that the high-sulfur fuel will quickly disappear from the market, and that the income from the tax will be minimal," the agency said.

Any money raised through the tax will be reimbursed to Swiss citizens through their individual health insurance accounts, DETEC added.

Under current Swiss regulations, gasoline can have a sulfur content of up to 150 ppm, while the maximum level for diesel fuel is fixed at 350 ppm. These norms, however, are due to drop to 50 ppm for both types of fuel when a new Swiss ordinance on air pollution enters into force from 2005, bringing Switzerland in line with new European Union norms.

6. Austria Rebuffed Over Heavy Lorry Permit Cuts; A Deal Is Made

Austria has suffered a legal defeat over its controversial ecopoint system for limiting transit lorry traffic and emissions of nitrogen oxides (NOx). The European court of justice has ruled that the European Commission was right in 2001 not to invoke penalty cuts that would have hugely disrupted commerce, particularly between Germany and Italy.

At issue was the definition of transit traffic and therefore how many journeys should be counted as requiring ecopoints. Nearly 150,000 "transit" journeys claimed by Austria in 2001 were contested by other EU governments. For some there was no data; for others, vehicles' entry and exit points were the same.

Austria's argument that it was not required to actually prove a transit journey was rejected by the court. Transit requires different entry and exit points, the judgment states. And Austria is responsible for administering the system, and therefore also for any errors.

The ruling has significance beyond 2001 ecopoints, since the European Commission refused to accept Austrian statistics for 2002 and 2003 transits. Austria reported transit traffic exceeding 108% of the 1991 level in all three years. Had its figures been accepted, deep cuts in ecopoint numbers would have had to be imposed in each following year.

The legal wrangling over ecopoints is mirrored by continued political wrangling over a proposed extension of the scheme. Delegations representing the European parliament and council of ministers held informal conciliation talks before finally reaching an agreement. The system would have been virtually certain to lapse at the end of this year had agreement not been reached.

The most polluting lorries will be banned from 2005, although there will be some exemptions for Greece and highly specialized vehicles. The next most polluting groups of vehicles will be subject to a quota system while the cleanest will have unrestricted passage.

The Council of ministers was successful in its bid to continue applying the system nationwide although the Parliament had earlier argued for it to be restricted to certain Alpine regions.

The allocation of ecopoints to accession countries was also agreed as was an annual 5% reduction in the total number of ecopoints between 2004 and 2006.

Austrian MEPs and government representatives "vehemently contested" the agreement, according to a parliamentary statement. However, the leader of the parliament delegation argued that Austria was still better treated than Germany, Italy or France who faced the same environmental problems but were not protected by an ecopoints system.

The agreement covers 1 January 2004 until 31 December 2006 at the latest, when ecopoints will be replaced by a Europe-wide "eurovignette" system of charging of lorries for infrastructure use.

7. DaimlerChrysler to Test 100 'Green' Cars

DaimlerChrysler AG, the world's No. 5 carmaker, said it plans "real-world experience" with more than 100 environmentally friendly, fuel cell vehicles by the end of 2004. "We consider fuel cell technology to be the solution for the future," Dr. Andreas Truckenbrodt, head of fuel cell and advanced powertrain development for DaimlerChrysler, said in a statement. "The next step is what we call, 'Fit for

Daily Use.' We need to get field experience on the road in daily use to determine how our customers use the vehicles and what their needs are," Dr. Truckenbrodt said.

FCVs are being touted by some as the ultimate "green car," since they emit only water as a by-product, creating electricity by combining hydrogen and oxygen. Mass production is believed to be at least a decade away due to high costs and the lack of infrastructure to supply and store hydrogen.

"The first commercially available fuel cell vehicles will be offered around the beginning of the next decade, but will not be produced in large numbers," Dr. Truckenbrodt said.

DaimlerChrysler said it will have "on-road real-world experience" with more than 100 fuel cell vehicles, including passenger cars, vans and transit buses, by the end of 2004. The vehicles will be placed with customers in Europe, Asia and the United States, the company said.

8. Scientists Play Down Risks From Tire Emissions

EU scientists have poured cold water on draft European Commission plans to curb the presence of carcinogenic polyaromatic hydrocarbons (PAHs) in car tires and extender oils used to make them.

In an opinion for the Commission's industry directorate the scientific toxicology committee (Cstee) says tires contribute "insignificantly" to overall human exposure to PAHs and that limiting their use in tires "will not considerably affect" air and sediment pollution levels.

The Commission is considering whether

to propose a ten parts per million (ppm) limit on PAHs across Europe under pressure from Germany and Sweden. The Swedish government has already launched a debate on possible national restrictions, based in part on evidence that tire wear during use makes a "significant contribution" to overall environmental contamination by PAHs.

The EU committee says the reports providing this evidence were flawed. They fail to sufficiently quantify the contribution of worn tire particles to water and soil pollution in comparison with other sources, and provide insufficient details on the bioavailability of PAHs, it says.

According to the committee's own estimate, tires contribute less than 5% of the pollution that comes from diesel engine emissions, and probably contribute less than 2% of the overall load of man-made emissions.

Even if the Commission decides against new EU legislation, PAH levels in tire extender oils are set to fall. Producers say they will be introducing more low-PAH oils over the next two years. European tire industry association Blic has said it "should be in a position" to phase out high-PAH oils entirely by the end of 2009.

9. EU Concludes That Euro 5 Truck Standards Can Be Met

The EU's long awaited report regarding the feasibility of the Euro 5 emissions standards for heavy duty engines concludes that the technology to meet both Euro 4 and Euro 5 emissions standards exists, although the engine manufacturers are not adopting a common approach. To meet the Euro 4 emissions standards it is likely that a combination of either high pressure EGR and/or SCR together with a diesel

particulate filter, diesel oxidation catalyst and possibly advanced turbocharging will become common solutions. There may be some engines meeting the requirements using SCR alone. These technologies are likely to add between 1000€ to 7000€ to the cost of new truck engines compared to the current product, and fuel consumption is estimated to increase by about 3% except when SCR is used alone. Under this scenario fuel consumption is estimated to decrease by about the same amount. Based on data supplied by component suppliers, the lower range of this cost estimate could be more realistic for volume production.

Current expectations are that SCR will be universally used to comply with Euro 5 NOx requirements in combination with a diesel particulate filter, diesel oxidation catalyst and possibly advanced turbocharging and EGR. Some engines may use SCR alone. The technologies required to meet Euro 5 standards will add another 1000€ to 3500€ to the price of an engine compared to a Euro 4 engine. Fuel consumption will be reduced by 3 to 5% compared to current engines.

10. Only 30% of Poland's Petrol Stations Meet EU Requirements

Only about 30 percent of Poland's gasoline stations have met the European Union's requirement on emission systems in advance of the Dec. 31, 2005, deadline, representatives of Polish companies and foreign firms operating in Poland have announced. Poland's PKN Orlen, one of the largest fuel companies in Central Europe, has 2,500 stations and its spokesman admitted the company will be hard-pressed to comply with the European Parliament and Council Directive 96/69 on the Approximation of the Laws of the Member States Relating to Measures to

be Taken Against Air Pollution by Emissions from Motor Vehicles. The directive requires vapor-tight emission systems and special corrosion-resistant fuel tanks to prevent soil pollution in case of leakage. The chief requirement is installation of a monitoring system in every station that warns about excessive emission of vapors when an underground fuel tank is filled. The system also should monitor vapors during filling of car tanks by customers.

"So far 60 percent of our stations meet the requirements," said PKN Orlen's Witold Tuszewicki. Tuszewicki said several hundred stations were recently bought from private owners and these stations have to be modernized. "The new ones we are building now will meet all the requirements," he said.

Dutch Shell, British Petroleum and Norway's Statoil, all of which started operating in Poland in 1992 or 1993, built modern stations that anticipated EU regulations. "We have 220 stations in Poland and 92 percent of them meet the vapor-tight emission requirements," Shell spokesman Robert Dabrowski said. He said a small percentage of those that do not meet the requirements were recently bought and will be modernized.

Poland introduced a regulation in 2000 that specified the requirements on construction of gasoline stations with vapor-tight emission systems, fuel tanks, and fuel pipelines in line with the directive.

Wojciech Jaworski, director of the Environmental Policy Department in the Environment Ministry, said that the regulation provides the incentive to push the gasoline stations to install the required equipment. "We do not plan any additional law on the subject nor regulation," he said. "The rest of the job goes to the inspecting bodies." Mariusz

Swierczzynski, an inspector in the Chief Inspectorate of the Environmental Protection (GIOS), said inspections of the stations would begin in 2004 to determine if they comply with the regulation.

"The requirements have to be met by Dec. 31, 2005," according to Jan Wierzchowski, director of the Energy Safety Department in the Ministry of Economy. "Those owners who have not met the requirement will be out of business."

There are some 7,000 gasoline stations in Poland and about 1,500 more are to be built by 2006.

11. Danish 2004 Budget Cuts Environmental Spending by 2 Percent

Denmark's proposed 2004 budget reduces Environment Ministry spending by 2 percent, retains all current environmental taxes, and adds one European Union-mandated energy tax, Danish Taxation Ministry head of division Thomas Larsen has announced. The proposed federal spending plan allocates \$232 million to the Environment Ministry in 2004, a decrease from its \$247 million appropriation in 2003. Total government proposed spending for 2004 is \$71.2 billion, an increase of 2.4 percent from 2003 spending levels.

The proposed budget includes environmental taxes for packaging, waste, pesticides, chlorinated solvents, batteries, sulfur, fluorinated gases, and certain types of plastics. A \$14.50 disposal charge for used vehicles is retained in the budget. Denmark's gasoline and kerosene tax rate of about \$0.05 per liter plus its tax rate of \$0.05 per kilogram on heating fuel do not change in the proposed budget, Larsen

said. The country's 2004 carbon dioxide tax rate is about \$16 per ton of emissions calculated using the combusted fuel's carbon content. Environmental taxes are deposited in the country's general fund.

To comply with EU Directive 2003/96/EC on the Taxation of Energy Products and Electricity, the country beginning Jan. 1 will impose on Danish industry a tax of about \$0.55 per megawatt of electricity consumed.

Environment Ministry spending priorities for 2004 include enhancing nature protection and working to complete EU legislation on a new chemicals policy.

Political agreement on the budget was reached Nov. 8, and parliamentary approval is expected soon.

12. EEA Issues Plans To Enhance Data Gathering

On November 25th, the European Environment Agency's management board approved a five-year plan to shift the agency's role from a "statistical bureau" to an interpreter of data capable of making policy recommendations, agency Executive Director Jacqueline McGlade announced after the board meeting. The EEA was established in 1994 as the European Union's primary research and data center for environmental affairs. While McGlade said she wants her agency to be capable of developing policy recommendations, she added the agency will not become a policymaking body.

Another key agency goal over the next five years will be to integrate its enlarged membership, which grew by more than 50 percent in the past year.

The 35-member board, which elected

Swedish Environmental Protection Agency director Lars-Erik Liljelund as its new chairman, also approved the agency's 2004 policy plan and a budget totaling \$36 million.

McGlade said that board members discussed using as many as 400 different types of environmental measurements to map the European Union's environmental status, but that the approved strategy selected only about 50 core indicators on which the agency will focus on improving the quality of its data.

Key environmental themes the agency will focus on during 2004-2008 will be climate change, biodiversity, sustainable development, and waste management, according to the plan. The strategy also calls for a more integrated, cross-sector approach to environmental protection.

With regard to human health, the agency will develop a "whole change in thinking," McGlade said. Instead of measuring the presence of pollution in the environment, the agency will increasingly focus on the harmful effects of human exposure to pollution, she said.

The five-year plan reflects the priorities McGlade listed for the agency after becoming the EEA's second executive director June 1.

The agency's 2004 work plan will begin implementing the five-year strategy. In 2004 the agency will overhaul its information practices, and will re-engineer its Internet site to better present content in the agency's 24 official languages. McGlade said the agency also will work to provide the public with more meaningful environmental data, including multimedia and Internet services aimed at people who are not environmental experts or scientists.

As part of that work the European Commission, assisted by the EEA, is expected in February to launch an EU-wide pollution emissions register containing information on thousands of industrial pollution sources.

The 2004 plan also sets an agency goal of collaborating with the United Nations, among others, to develop joint activities promoting environmental projects in southeastern Europe, the Mediterranean basin, the Caucasus, and Central Asia.

In addition to the 15 existing EU countries, EEA members include Norway, Iceland, Liechtenstein, and the 13 countries which have applied for or successfully negotiated EU entry (Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovenia, the Slovak Republic, and Turkey).

13. 2004 U.K. Budget to Balance Environment and Business Needs

On December 10th, British Chancellor of the Exchequer Gordon Brown said in his annual autumn prebudget statement that the environmental tax incentives in his 2004 budget would include the establishment of an alternative fuels framework, plans to change eligibility for climate change levies, and a proposal to recycle landfill tax credits. Brown also said his 2004 budget would promote environmental stewardship without harming business. The chancellor said the use of green fuels "puts the environment and business certainty at the heart of a coherent and radical policy on fuel duty discounts."

Brown unveiled further steps to reduce carbon emissions through extending the eligibility criteria for climate change agreements, which offer 80 percent reductions from the climate change levy

in return for negotiated environmental agreements. He said the government would support the development of the EU emissions trading scheme by allowing those companies eligible for climate change agreements to retain the same incentives upon entering into the European Union scheme. He said the government would also extend the eligibility criteria for climate change agreements during 2004. "The existing criteria will remain but, in addition, the government will consider climate change agreements for sectors that meet a specific energy-intensity threshold."

The chancellor said the government would bring a three-year rolling commitment to the duty differentials between the main road fuels and all alternative fuels, with the relative rates to be announced in the budget next April. He said this would "incentivize more environmentally and economically efficient types of biofuels manufacturing process." The chancellor said the government decided that the environmental benefits offered by liquefied petroleum gas "no longer justify the level of duty differential it currently receives, which is almost double the rate of any other EU country. Consistent with the environmental benefit and the new framework on alternative fuels, the rate for LPG will be gradually increased over time toward a level more commensurate with its environmental benefit," Brown said.

Natural gas vehicles offer considerable additional benefits over conventional fuels, particularly on air quality, he said. "The government has therefore decided that the duty differentials for natural gas will be held constant for the next three years."

14. Putin Adviser Says Russia Cannot Ratify Kyoto Pact In Current

Form

On December 2nd, a senior adviser to Russian President Vladimir Putin cast new doubt on the future of the Kyoto Protocol, indicating that Moscow has no intention of ratifying the climate change treaty to limit greenhouse-effect gases. Because the United States has withdrawn from the Kyoto process, ratification by Russia is crucial for the international treaty to go into force. According to a statement from Kremlin economic adviser Andrei Illarionov in Moscow and confirmed by a Russian diplomat in Milan, Russia believes the protocol will limit growth prospects for the Russian economy.

Advocates of the protocol meeting in Milan for the Ninth Conference of the Parties (COP-9) to the U.N. Framework Convention on Climate Change (UNFCCC) scrambled to put the unexpected statement in context. Environmental groups brushed aside the declaration as "tough talk" ahead of elections for the Russian Duma, which were scheduled for Dec. 7.

The statements were part of another round of bad news on only the second day of COP-9, which ran through Dec. 12. Earlier, the European Commission issued a report indicating that even European Union member states--the strongest advocates of the protocol--have so far failed to reverse climate change. (see above)

Russia's action on the Kyoto Protocol is critical, since the treaty cannot enter into force until either the United States or Russia ratifies it. The 1997 protocol, which would amend the 1992 framework climate change convention by adding binding emission-reduction requirements for industrialized nations, must be ratified by at least 55 countries accounting for 55 percent of global

emissions as of 1990. As of Nov. 30, 120 countries representing 44.2 percent of the carbon dioxide emissions from industrialized countries in 1990 had ratified the agreement. That means either Russia (accounting for 17.4 percent of global emissions in 1990) or the United States (with 36.1 percent of emissions in 1990) must ratify the treaty for it to go into force.

15. de Palacio Suggests EU Reconsider Kyoto; Prodi, Wallström Disagree

The European Union should reevaluate its commitments for reducing greenhouse gases if the Kyoto Protocol does not come into force, Energy Commissioner Loyola de Palacio said Dec. 15. Claiming that it was time for the European Union to "face reality," de Palacio said the EU must start thinking now about a new strategy if Russia does not ratify the Kyoto Protocol. The Spanish commissioner, as well as Italian Energy Minister Antonio Marzano, speaking after a meeting of the Council of Energy Ministers, said EU industrial competitiveness would be put at a great disadvantage if it carries through with its Kyoto commitment even if it does not come into force.

De Palacio's remarks came two days after EU heads of state and government also signaled a wavering EU resolve over Kyoto. In conclusions adopted at the Dec. 12-13 summit, which was marred by the failure to agree terms on a new EU constitution, EU leaders addressed the issue when raising concerns about the competitiveness of the EU economy and businesses.

The EU leaders committed to reviewing "proposals having a significant impact on competitiveness or creating an excessive burden for certain sectors of industry ... in this context further cost-

effective ways of implementing EU decisions in the field of climate change and the potential cost of inaction should be considered," the summit conclusions stated. The reference to climate change policies in the competitiveness sector of the summit conclusions were inserted at the insistence of Spain, according to reports. Currently, Spain is the EU member state most behind in meeting individual greenhouse gas targets outlined in the EU burden-sharing plan that is based on its Kyoto Protocol commitments. Even though Spain is allowed to increase its emissions by 15 percent from 1990 levels under the burden sharing plan it is still projected to exceed that rate by as much as 32 percent.

The statements by de Palacio questioning EU commitment to Kyoto if it does not come into force flies in the face of those from Environment Commissioner Margot Wallström in recent weeks. The Swedish environment minister, speaking in advance of the meeting of the parties for the United Nations Framework Convention on Climate Change, said the European Union would continue to show its "leadership" role and reduce greenhouse gases by 8 percent from 1990 levels by 2008-12 even if Russia does not ratify. But de Palacio, who has clashed with Wallström in the past on nuclear energy issues, recognized that her statements were controversial but said she was only the "messenger." "People shoot the messenger," de Palacio said. "But you cannot ignore reality. The fact is that if Kyoto does not come into force, we have to make plans for that. We cannot wait until 2008. We have to deal with that now."

Marzano, speaking along side de Palacio, added that he, along with most EU energy ministers, agreed with the Spanish commissioner, and said that if the EU carries through with Kyoto

commitments regardless it "would place big burdens on our industries."

Shortly afterward, European Commission President Romano Prodi insisted the European Union's support for the Kyoto Protocol was unwavering. "We are not changing our position or going back on the targets that we have agreed," Prodi said in a statement.

16. Italian CO₂ Emissions Down in 2001, Other Environmental Indicators Mixed

Italian emissions of carbon dioxide dropped slightly in 2001 compared to 2000, and the output of two other key greenhouse gases remained more or less unchanged, according to the third annual *Environmental Data Report 2003*. The 107-page report was released Nov. 25, the final day of the three-day Conference of National Environmental Agencies. The figures used in the report were the latest available from the Ministry of Environment's technical branch, the Italian Agency for Environmental Protection and Technical Services (APAT). The document showed mixed results for other environmental indicators such as air quality, water conservation, and waste disposal, and it showed substantial progress in efforts aimed at protecting biodiversity through the restricted use of biologically rich areas.

The most significant aspect of the report was the information about carbon dioxide emissions, which dropped 0.7 percent in 2001 compared to 2000--the first year-on-year reduction in CO₂ emission levels since the government started monitoring them on a monthly basis in 1997. Overall levels of carbon dioxide--the most common greenhouse gas restricted by the Kyoto Protocol--were still 7.1 percent higher in 2001

than in 1990, the base year used in the protocol. The Kyoto Protocol requires Italy's overall greenhouse gas emissions to fall at least 6.5 percent compared to 1990 levels no later than 2012.

Among other gases, emissions of methane dropped 0.4 percent in 2001 compared to 2000, and nitrous oxides rose 1.9 percent over the same period. Officials attributed the relative leveling off of emissions to a slowdown in manufacturing that started in 2001 and a series of national conservation efforts that began around the same time.

The picture in other areas was similarly mixed. The report showed that 40 percent of the country's 212 air quality stations detected unsafe levels of air pollution during at least 50 days in 2002, up from only 28 percent that showed the same air quality problems in 2001. However, the two most polluted cities in Italy, the industrial centers of Turin and Milan, showed slight improvements in air quality in 2002 compared to the previous year, another figure that officials attributed to the country's economic slowdown.

17. German Report: Fossil Fuels Must Be Phased Out by 2100

A new report released by a German government scientific agency said that to adequately fight climate change, fossil fuels will have to be almost completely phased out within a century, and it predicted catastrophic damage to the world if measures were not taken. In the 76-page report titled *Climate Protection Strategies for the 21st Century: Kyoto and Beyond*, the German Advisory Council on Global Change (WBGU) said most severe problems associated with climate change--such as melting ice caps and rising sea levels--come when worldwide temperatures rise an average of around

2 degrees Celsius (which translates to a 3- to 5-degree change over landmasses) compared to levels at the start of the industrial revolution. To prevent that, the report said, emissions levels would have to be reduced 20 percent compared to 1990 levels by 2020, by 60 percent by 2050, and by 80 percent by 2100. Those levels are far greater than the 5.2 percent reduction in carbon emissions by 2012 prescribed by the Kyoto Protocol.

The WBGU, an autonomous scientific body funded by the German government, released its findings Dec. 6 during the Dec. 1-12 Ninth Conference of the Parties to the U.N. Framework Convention on Climate Change. While many reports predicting dire consequences if greenhouse gas emissions are not curbed have been released in recent years, the German report is significant because it is wide-ranging and because it was produced by a scientific group that was not created to promote a specific agenda. The WBGU's information is provided to German policymakers, but the German government is not required to act on the group's recommendations.

The report pointed out that such a process would cost between 0.5 percent and 1 percent of the world's economic output per year until the end of the century. Those funds will have to be directed mostly toward the development of non-fossil fuel energy sources, such as coupling heat and power production, biomass and biofuels, thermal energy, nuclear power, hydroelectric power, wind power, and solar power. Those energy sources, the report said, combined with development of new energy production technologies and the use of methods aimed at reducing existing carbon dioxide, such as carbon sequestration, could help reach the dramatic reductions the report says are needed.

The WBGU suggestions include linking emissions levels to population to set a per capita emissions target by 2050. The organization also calls for an end to government subsidies for fossil fuel producers to create a larger market for renewable and other environmentally friendly energy producers.

According to the report, the kind of damages that could result from unchecked emissions growth would melt the West Antarctic ice sheet and the Greenland ice cap. The process eventually would raise sea levels worldwide by up to 30 feet, submerging vast areas of land including parts of Bombay, Calcutta, Lagos, London, Miami, New York, Shanghai, Sydney, and Tokyo.

18. EU Growth Initiative Moving Forward

European Union leaders have endorsed a multi-billion euro plan to encourage public and private investment into transport and research projects in a bid to revitalize the EU's economy. The plan is centered on a "quick-start" priority list of 56 transport, energy and R&D projects expected to be launched over the next three years. The priority projects, all of which have a cross-border impact, envisage total costs of 62 billion euros by 2010. This is a much scaled-down operation from an initial, wider plan unveiled earlier this year that envisaged transport projects worth 220 billion euros by 2020.

The annual cost of around 10 billion euros a year for the priority list is to be covered by EU and national funds, long-term loans from the EIB and private investment. The EIB has pledged up to 50 billion euros in long-term funds between 2003 and 2010 for network projects and around 40 billion euros for

research in the same period. The private sector is expected to contribute 40 percent of the total cost. The EU can contribute with up to 20 percent of the cost of each individual project, particularly cross-border ones.

TRANSPORT: projects, worth 38 billion euros, include:

- Mont Cenis transalpine rail tunnel linking Lyon and Turin, tunnel through the Brenner pass linking Italy to Austria.
- high-speed rail links between Liege (Belgium) and Cologne, Figueras (Spain) and Perpignan (France), Lisbon and Madrid. - bridge at Kehl over the Rhine that will link up French and German high-speed networks
- new railway networks between Vigo (Spain) and Porto (Portugal), Dijon (France) and Mulheim (Germany), Basel (Switzerland) and Karlsruhe (Germany)
- railway tunnels at Malmo and Stockholm (Sweden)
- upgrades of railway lines, many in future EU states in central and eastern Europe. Upgrading of river connections, ferry lines and motorways are also included.
- Galileo satellite positioning system

ENERGY: Package worth 10 billion euros. Projects include key cross border gas and electricity links to reduce the risk of blackouts.

- improvements to the France-Spain-Portugal connection between Sentmenat and Baixas and, in the Spain to Portugal section, between Douro and Valdigem.
- on France-Austria-Slovenia-Italy-Switzerland line there will be

improvements between Robbia and St Fiorano

- improvements to the France-Belgium-Netherlands-Germany line between Avelin and Avelgem, and Moulaine and Aubange
- submarine cable between Britain and the Netherlands, line between Greece and Turkey, connections between Germany and Scandinavia. - gas pipelines in the North Sea. Gas connections between France, Spain and Algeria; between Algeria, Libya and Italy; and from Greece to Turkey and Italy

IT & RESEARCH: Projects worth 14 billion euros. Priority areas include roll out of broadband networks including to remote areas. Research projects on hydrogen and fuel cells, nanotechnology and next generation lasers.

19. EU Parliament Rejects Diesel Tax Plan

On November 18th, the European Parliament voted by a show of hands to reject a plan to align diesel fuel taxes across the European Union, despite claims that the proposal would offer environmental benefits. The proposal, drafted by the European Commission, had two objectives: to reduce unfair tax competition between the 15 EU states and to eliminate "gasoline tourism" by drivers who make detours in order to refuel in low-tax states.

For commercial users, the Commission proposal envisions a central rate of [Euros] 350 (\$417) per 1,000 liters. At first, states would have been free to set rates within a "fluctuation band" which would have been progressively eliminated by March 2010.

The proposal, a joint initiative by Tax Commissioner Frits Bolkestein and Transport Commissioner Loyola de Palacio, was backed by the Parliament's Environment Committee, but opposed by the powerful Economic and Monetary Affairs Committee (EMAC). Voicing disappointment at the Parliament's vote, de Palacio confirmed that she would consult other commissioners on the fate of the proposal. EU rules require the agreement of the full 20-member Commission to withdraw a legislative draft.

In the debate, Bolkestein argued, "Implementation of this proposal will lead to a general reduction in emissions of pollutants such as nitrogen oxides, volatile organic compounds, sulfur dioxide, and particulates. There will also be a reduction in carbon dioxide emissions--the reason why environmental NGOs support this proposal." Regarding unfair tax competition, Bolkestein cited "dreadfully low" fuel tax rates levied by tiny Luxembourg, where diesel fuel sales are up to six times more than in neighboring Belgium, France, and Germany. Bolkestein saw "long lines of lorries all trying to fill up with that cheap diesel" as evidence of an "open and shut case" of unfair tax competition on the part of Luxembourg.

The Commission proposal also sought gradual elimination of differences in the tax treatment of gasoline and diesel fuel used by private automobiles. In some EU states, diesel oil is far cheaper than gasoline, thanks to favorable tax rates.

The Parliament's Environment Committee opined that alignment of taxes would help to discourage use of automobiles. "Europe must take measures relating to car use if we wish to comply with our Kyoto obligations to reduce greenhouse gas emissions," said committee spokeswoman, Finnish

deputy Eija-Riitta Korhola. Korhola said that although diesel-powered automobiles consume less fuel and emit less carbon dioxide, they emit more nitrogen oxides and particulates, "a serious threat to public health." Even with full alignment of diesel and gasoline taxes, drivers of diesel-powered vehicles would still enjoy the advantage of greater fuel economy, she said.

But objectors said interstate price competition might actually be beneficial to business.

They also questioned Bolkestein's "anecdotal" evidence against "gasoline tourism."

For EMAC, Finnish deputy Piia-Noora Kauppi, warned, "EU-wide alignment of fuel taxes will mean massive price rises in many of the ten nations due to join the Union in 2004, undermining their efforts to combat inflation."

20. U.K. Sets National Plan to Meet EU Directive On Combustion Plants

The United Kingdom will implement a "national plan" to comply with a European Union directive on combustion plant emissions but will keep open the option to set limits on individual plants instead, according to a Nov. 27 statement from the U.K. Department of the Environment, Food, and Rural Affairs (DEFRA). EU Parliament and Council Directive 2001/80 on the Limitation of Emissions of Certain Pollutants Into the Air From Large Combustion Plants requires EU member states either to set emission limits for individual plants or to impose a "national plan" under which total emission caps for each pollutant covered (sulfur dioxide, nitrogen oxides, and dust) can be shared among plants.

U.K. environmental officials published a consultation paper in June describing options for implementing the directive. The directive was implemented in 1988 but was amended in 2001 with tighter standards that will come into effect Jan. 1, 2008.

Energy consumers tended to favor a national plan while the U.K. coal industry favored the alternative. Consultations closed Sept. 30 but, according to the statement, no consensus had emerged "and there are strongly held views in favor of both implementation options." Since the EU directive required plans to be submitted to the European Commission by Nov. 27, the U.K. government submitted a national plan, but "we consider that further analysis is required before we can be sure which implementation approach is in the U.K. interest to adopt," the statement said, quoting Minister for Nature Conservation Ben Bradshaw.

"We are therefore submitting a national plan to the Commission at the same time as undertaking this further analysis," the statement continued. "This will in effect keep either option open. We would withdraw the plan if this further analysis suggested that the emission limits approach was to be preferred. A decision on whether to withdraw the national plan would be taken before spring 2004."

The U.K. coal industry has been the loudest opponent of a national plan, arguing that it could force the United Kingdom to import all its coal from abroad. Coal-fired power generators supply one third of Britain's energy and are also the country's main source of sulfur dioxide emissions. Domestic coal is high in sulfur.

21. Boost For Public Green

Purchasing In Europe

Parliament and the Council have reached agreement on the final remaining point of disagreement over public procurement, namely the criteria for awarding public contracts. The two institutions found common ground in the form of the case law of the Court of Justice, which allows for factors other than price, such as environmental considerations, to be taken into account by a contracting authority when it is awarding a public contract. However, the new directive says, in line with the Court's rulings, that these criteria must have a bearing on the object of the contract.

Parliament was keen for the allowable criteria to include a contractor's policy on disabled people and the application of equal treatment. The Council, however, feared this might make the awarding of contracts too arbitrary, so MEPs agreed that this point should be clarified in the recitals (preamble), rather than the body of the text. The reference to the Court's rulings states that it "*clarifies the possibilities for the contracting authorities to meet the needs of the public concerned, including in the environmental and/or social area*".

The two draft directives, the first of a general nature and the second dealing with specific industries, are designed to replace four existing legislative texts, so as to simplify and modernize Community law on public procurement. The new legislation should ensure that the single market functions more smoothly and that there is greater transparency in the awarding of contracts. According to Charlotte Cederschiöld, leader of the Parliament delegation, these new directives will sweep away red tape. This will make matters simpler for small contracting authorities and for small companies

seeking to tender for public contracts. As rapporteur Stefano Zappala pointed out, there will be less room for interpretation since the directives are very clear about tendering procedures and award criteria.

One way in which the procedures will be modernized is through the use of electronic tendering. Parliament and Council believe that, to ensure confidentiality in tendering, the use of electronic signatures must be encouraged. Another point is schoolbooks for which a fixed retail price has been laid down. These will not be exempted from the directive, as Parliament wanted, but the adjudicating authority will assess tenders on criteria other than price.

In order to reach a compromise, the Council accepted a Parliament amendment on monitoring mechanisms and Parliament withdrew its amendments on qualification systems. Thus, on the one hand, Member States are asked to ensure the directive is implemented through "*effective, available and transparent*" mechanisms. On the other hand, Parliament has dropped its demand to allow contracting authorities to establish qualification systems for pre-selecting companies suited to submitting tenders.

Prior to the conciliation stage, Parliament had successfully pushed for the thresholds above which the directive will apply to be raised. This ensures that more public contracts are excluded from the directive's scope. In exchange, MEPs added a clause pointing out that the principles of the Treaty apply to all public contracts, including those which come under national law.

Since the deal was approved by a large majority of Parliament's delegation, (12 in favor 2 against), it should encounter no major obstacles at the plenary vote

scheduled for the end of January in Brussels.

22. Parliament Urges More Shipping Emission Curbs

The European parliament has adopted a non-binding own-initiative resolution drawn up in response to the Commission paper on an EU strategy to reduce atmospheric emissions from seagoing ships. While agreeing with the Commission's recommendations, MEPs want it to go even further and to consider including polycyclic aromatics (such as PAH) and heavy metals (e.g. Nickel and Vanadium) among the emissions to be covered by the strategy. They also say that the Commission's overall objective (of reducing the contribution of ships' atmospheric emissions towards environmental and human health problems in the EU) should be extended so that it also aims explicitly to reduce ships' emissions of greenhouse gases (such as CO₂) and their contribution to global warming. MEPs note the Commission's intention of identifying and undertaking specific actions to reduce greenhouse gas emissions from marine shipping if the International Maritime Organization (IMO) had not adopted a concrete ambitious strategy on this by 2003.

The resolution notes with concern that the Commission's proposal on the revision of the 1999 directive on the sulphur content of marine fuels would only reduce sulphur emissions from seagoing ships in European sea areas by about 10%, as compared to their emission level in 2000, and pointed out that emissions needed to be reduced by at least 80% (as Parliament had recommended at its 1st reading in June 2003) in order to achieve the objectives of the 6th Environmental Action Program. The Commission is accordingly urged to set more ambitious

targets as regards the proposed limit values and the sea areas to be covered and also to analyze the costs and benefits of alternative, more far-reaching abatement measures.

MEPs also want the Commission to give a stronger commitment to drawing up legislation to reduce NO_x emissions, rather than linking this action to future developments in the IMO. Whereas the Commission had pledged only to take such action if the IMO had not proposed tighter international NO_x standards for marine engines by the end of 2006, MEPs call on the Commission to present a proposal, before the end of 2004, for NO_x emission standards for ships with the aim of reducing NO_x emissions from ship engines.

(Reportedly, the Council of Ministers adopted a resolution on the EU's shipping emissions strategy during its final meeting of 2003, backing tighter nitrogen oxide controls from 2006.)

Lastly, the MEPs also expressed concern that the Commission has not yet come forward with proposals for an EU system of differentiated charges for all transport modes that takes into account marginal social costs including the external costs of air pollution and climate change, despite it being announced in the strategy that such a proposal is due in "early 2003".

Meanwhile, the Parliament complained that only five of the 15 EU member states--Denmark, Germany, Greece, Spain, and Sweden--have signed Annex VI of the International Convention on the Prevention of Pollution from Ships (MARPOL), an existing IMO agreement on curbing emissions of SO₂, NO_x, and ozone-depleting substances. The agreement, which covers engine standards, will come into force 12 months after ratification by 15 nations accounting for at least 50 percent of

world shipping tonnage. The 12 ratifications to date account for more than 54 percent of the required tonnage.

Among the Commission options Parliament endorsed was a plan to promote emission-saving measures such as speed limits on sea lanes subject to port authority control. Within ports, ship operators will be encouraged to plug into dockside electricity supply, rather than run their generators.

According to 1990 figures cited in a report from the Parliament's Environment Committee, sulfur and nitrogen deposits exceeded the critical loads for acidic substances in Europe across more than 55 million hectares (about 135.8 million acres) of sensitive ecosystems.

Emissions from ship traffic contributed to critical loads of acidity being exceeded by more than 50 percent along most of the coastlines of the English Channel, the North Sea, and the Baltic Sea. In parts of northern Europe, ship emissions were responsible for more than 90 percent of critical loads for acidity being exceeded. In southern regions ships' NO_x emissions are seen as a major factor in smog formation.

The Parliament's debate focused on SO₂ emissions, in light of a Commission warning that by 2020 sulfur emissions from shipping will exceed those from all land-based sources, as shipping triples as a result of global trade agreements.

23. Parliament Approves Testing For Light Vehicle Carbon Emissions

On December 16th, the European Parliament approved European Union-wide standards for testing carbon dioxide emissions and fuel consumption of vans and other light vehicles. A directive drafted by the European

Commission as part of the EU European Climate Change Program (ECCP) on reducing greenhouse gas emissions, will introduce common test methods for three categories of vehicle weight between 1,250 kilograms and 3,500 kg (identified in EU law as Category N1 vehicles, classes I, II, and III). About 10 percent of EU road transport CO₂ emissions are produced by 20 million light commercial vehicles, according to a report from the Parliament's Environment Committee.

Aligning current national test rules is "a first prerequisite to enable, monitor and evaluate possible future fuel economy measures," according to the Commission draft.

In its final version, the legislation incorporates changes demanded by the Parliament in a preliminary vote Sept. 24, 2002. Environment Commissioner Margot Wallström's original text was seen as overly complex, given that the legislation covers a variety of specialized light vehicles, as well as regular delivery vans. Many incorporate mass-produced components and engines designed originally for automobiles. Changes introduced by the Parliament will avoid the need for each vehicle design to be tested individually, in cases where the CO₂ emission and fuel economy performance of a standard engine has already been established. For the Parliament's Environment Committee, British deputy Robert Goodwill said the changes will avoid individual examinations of up to 4,000 specialized vehicle sub-types. On his recommendation, the Parliament introduced no further amendments. The text was then declared by the chair to have been adopted.

Early enactment, said Goodwill, will allow constructors to switch to the new test procedures measures without delay.

The draft will be signed into law in the coming weeks by the Council of Ministers, representing EU state governments, and will enter into force on the day of publication of the definitive text in the EU's 11 official languages. States must then transpose the directive into national law within 12 months.

24. Sweden Inks Voluntary Accord With Local Governments, Firms

The Swedish government concluded its second voluntary agreement with companies and regional governments under an initiative aimed at curbing environmental harm caused by industrial practices, Swedish Environment Ministry General Director Bertil Pettersson has announced. On November 28th, Swedish Environment Minister Lena Sommestad signed a voluntary agreement with food retailers and three municipalities requiring emissions reductions from transportation traffic by 2010 and energy-consumption reductions by 2025.

The agreement is the second accord concluded by the government's "Dialog Project" initiative, launched in 1999, which aims to decrease Swedish industry's impact on the environment. The initiative concluded its first voluntary agreement with construction firms on September 4th.

The agreements are part of a continuing trend in the Nordic countries--Denmark, Finland, Iceland, Norway, and Sweden--toward using voluntary agreements to achieve environment-protection ends.

The November 28th agreement contains 10 short- and long-term goals, including reducing nitrogen oxides emissions by 50 percent, carbon dioxide emissions by 5 percent, and particulate matter releases by 80 percent no later than 2010, based on 2000 levels, Pettersson

said.

25. Parliament Urges Delay For EU Road Toll Service

As the European parliament completed its final plenary session of 2003, it included a first reading on European Commission proposals for a directive on interoperability of road charging systems. MEPs sought to put a brake on progress, pushing back deadlines and calling for greater flexibility over future decisions on technologies.

The Commission presented a single European toll service as an important foundation stone in parallel efforts to agree an EU framework for road infrastructure charging. Its core principles were one contract per customer and one box per vehicle. It recommended creating a European electronic toll service on 1 January 2005, from which date any new toll systems would have to use one or more specified technologies. The parliament has voted to push back both deadlines by two years. It also wants to delete a clause specifying that from 1 January 2008 all new systems should use only specified satellite positioning or mobile communications technologies.

The Commission proposed that users should be able to take a single subscription contract through any individual operator, effective from 1 January 2005 for trucks and buses and 2010 for cars. MEPs have backed the single subscription idea but reworded the deadlines in a way that could mean several years' delay.

MEPs also approved a conciliation agreement between parliament and the EU council to continue Austria's ecopoint lorry permitting system during 2004 and setting permit levels for the new member states. The system is to

expire on 31 December 2006 at the latest, pending agreement on an EU-wide framework for road infrastructure charging system. The conciliation deal was reached in late November.

NORTH AMERICA

26. AirCare Study Highlights Program Benefits

AirCare regularly conducts detailed scientific reviews to assess overall program effectiveness and report on total reductions in vehicle emissions attributed to the program. The British Columbia AirCare program is considered by many to have the most in depth technical reviews in the inspection and maintenance industry. These reviews follow established scientific methodology and are fair appraisals of the program's strengths and weaknesses.

The most recent report entitled "AirCare – Results and Observations in 2001 and 2002" clearly shows that the program continues to be highly effective at reducing light-duty vehicle emissions, the single largest source of regional air pollution. Here are some of the highlights from the 2001-2002 technical review:

A. Inspections

- AirCare inspected 748,068 light-duty vehicles in 2001 and 778,521 in 2002
- 84% of vehicles passed initial inspection
- 16% failed initial inspection
- Of the 16% that failed the initial inspection: 70% were correctly repaired and received a full pass on the re-test, 10% were partially repaired and received a conditional pass and 20% were "retired" from the fleet

Introduction of the enhanced inspection using IM240 for 1992 and newer vehicles has had a dramatic effect on the failure rate for these vehicles. Prior to 2001, the failure rate for 1992 and newer vehicles was less than 3%. In 2002, the failure rate for 1992 and newer vehicles reached 9.6%. It is fair to conclude that this enhanced test is identifying excessively emitting vehicles that were not being identified by the previous test, the ASM.

B. Repairs

Reductions in vehicle emissions cannot be achieved without effective repairs.

- There are currently about 1,300 AirCare Certified Repair Technicians
- There are about 430 AirCare Certified Repair Centers
- AirCare Certified Repair facilities handle about 30% of all vehicles that fail AirCare
- The average cost to repair a failed vehicle was \$343 in 2001 and \$377 in 2002.

C. Benefits

- In 2001 and 2002, AirCare data shows that Hydrocarbons (HC), Carbon Monoxide (CO) and Oxides of Nitrogen (NOx) were reduced by 23,208 tons.
- In its first ten years (1992-2002) the AirCare program reduced total vehicle emissions by 35% for a total reduction of 731,790 tons of HC, CO and NOx.

27. Louisville Emissions Testing Fight Reflects State, Federal Tensions

The city of Louisville, KY, closed its five Vehicle Emissions Testing (VET) centers at the beginning of the month

even though the region is now violating its federal ozone plan and a new study shows unsafe levels of vehicle-generated toxic emissions. EPA had rejected Louisville's request to close the centers. The Louisville area was facing conflicting requirements between a state law enacted last year, which mandated the closures, and its EPA-approved state implementation plan (SIP), which includes the testing as a federal requirement. The area decided to comply with state law despite opposition to the legislation by local officials.

The issue raises difficult questions about EPA's authority as the agency begins transitioning to a stricter ozone standard, and illustrates problems lawmakers may create when they interfere with already-imposed requirements.

Additionally, the VET closure came at the same time Louisville officials released a year-long air toxics study that found elevated levels of 20 chemicals, including butadiene, which is generated by vehicles, among other sources. The study's release prompted EPA enforcement officials to schedule an inspection of all nearby chemical plants, according to press reports.

The VET facilities in Louisville closed Nov. 1 despite admissions by the Metro Louisville Air Pollution Control District that the change could result in pollution increases.

EPA in late October rejected Kentucky's request to revise its SIP to allow closure of the VETs because the city did not include demonstration of attainment with the pending, stricter 8-hour ozone standard. "This demonstration is necessary for EPA approval of a SIP revision to incorporate this action, since the Kentucky portion of the Louisville Metropolitan Statistical Area . . . is currently violating the 8-hour ozone

standard,” EPA’s letter to Kentucky officials says. “Our only option at this time is to disapprove this SIP revision.”

The issue is complex because EPA has not yet completed its 8-hour ozone implementation plan, a source with Louisville Mayor Jerry Abramson says. Louisville meets the 1-hour standard but its plan to stay in attainment includes emission reductions achieved by the VET. And while air officials say elimination of VET is not likely to cause nonattainment with the 1-hour standard, additional reductions are needed for the city to meet the 8-hour standard.

In response to the dilemma, the mayor is creating a task force to examine alternatives to the vehicle-testing program, which was rejected by political leaders as ineffective, the source says. Some of these options could include vehicle buyback programs, the creation of high-occupancy vehicle lanes and other strategies to reduce vehicle miles traveled.

At the same time, a Kentucky environmental group is suing over the closure of the VETs, saying the move is a clear violation of federal law. The Kentucky Resources Council filed a federal lawsuit Nov. 17 in the U.S. District Court for the Western District of Kentucky. The suit names as defendants EPA, the state of Kentucky and the Louisville metropolitan government. The groups are also seeking a preliminary injunction that would force reopening the VETs during the litigation.

“The action, taken after receipt . . . of notice from the EPA that the proposed SIP revision to eliminate the program would *not* be approved . . . constitutes a violation of a binding and enforceable commitment under federal law to maintain and administer the approved ‘State Implementation Plan’ (SIP) for

reducing carbon monoxide and ozone pollutant emissions,” the complaint states.

28. Ford Sets July '04 Date For Hybrid SUV Production

Ford Motor Co. will start production of hybrid gasoline-electric versions of its Escape sport utility vehicle in July 2004, with a target of selling 10,000 to 20,000 a year, company executives have said.

Ford has yet to set prices for the hybrid Escape, which may achieve fuel economy of up to 40 miles per gallon in city driving. Program managers at a media briefing and test drive said the hybrid Escape would be profitable, but that the full cost of developing the hybrid system would not be shouldered by Escape buyers.

The hybrid Escape uses an electric motor and battery pack as an additional power source for its four-cylinder engine. The batteries charge when the Escape cruises or brakes, and the electric motor eases the load on the engine under acceleration.

The hybrid Escape will be built on the same assembly line in Claycomo, Missouri, that builds regular Escapes. A front-wheel-drive hybrid Escape should achieve 35 to 40 miles per gallon in city driving and 29 to 31 mpg in highway driving, compared with 19 mpg and 25 mpg ratings for a V-6 powered Escape.

29. Detroit May Be Six Years Behind Japan In Fuel Economy Technology

Technological leaps represented by cars like the Toyota Prius hybrid gasoline/electric vehicle are leaving Detroit automakers up to six years behind the Japanese in fuel economy

innovations and putting them at risk of major share loss in the medium-to-long-term, according to a recent auto industry financial overview. "Although Ford and GM have now awoken to the challenge, we think their management teams should be alert to the long-term threat of Toyota's six-to-seven year [hybrid] lead," according to an industry overview conducted by Banc of America Securities. The report's authors said they conducted the overview by putting out a survey to six major automakers -- GM, Ford, DaimlerChrysler, Honda, Toyota and Nissan -- about how much emphasis they are giving hybrids.

U.S. automakers have yet to introduce a hybrid version of their vehicles. However, Toyota has released its third generation Prius full-hybrid vehicle and Honda has two mild hybrids -- the Insight and hybrid Civic -- for sale now. General Motors (GM) is expected to introduce hybrid technology next year, but only to provide supplemental power to traditional drive train vehicles.

In 2004, GM is to sell hybrid versions of its Silverado and Sierra pickup trucks, but unlike the Toyota Prius and Honda Insight that are powered entirely by their electric motors at low speeds, the GM models only use hybrid technology to provide backup power when GM vehicles shut down their internal combustion engines while at a complete stop. GM will not have a "full" hybrid available for sale until 2005, when it is expected to offer a hybrid version of its Saturn Vue, according to the overview.

The report was put together because Banc of America analysts said they were "intrigued by the emphasis Toyota" put into its hybrid models. "This is our second report on the topic, and we still think our suspicion that Toyota is on to something big is accurate," wrote the report's authors.

By 2008, Toyota is expected to sell 102,303 hybrid vehicles. That is compared to 35,809 by GM, 27,520 by Honda, 19,782 by Ford and 15,805 by Nissan that same year, according to the report. DaimlerChrysler has no reported plans to sell hybrids. It scrapped plans to sell a hybrid version of its popular Durango sport utility vehicle (SUV) in 2002. Hybrid sales are expected to represent about 2 percent of the total U.S. market for light vehicles over the next five years, reaching to around 4 percent by 2010 and 6 percent by 2015, according to the report.

The majority of the companies that participated in the Banc of America survey agreed that hybrids are the most viable alternative fuel vehicle until 2020, when they expect hydrogen fuel cell vehicles to begin entering the market at significant levels. But the higher cost of producing hybrids coupled with the lack of public awareness will prevent them from being sold in significant volume until 2010, the report's authors said. The report estimated the average additional cost to build a "mild" hybrid vehicle (with a 42 volt battery) was around \$1,000 and \$3,500 for a "full" hybrid (300+ volt battery).

Another reason cited by some automakers on the survey for not aggressively seeking hybrid technology was that "hybridization will occur on an as-needed basis for fuel efficiency and performance enhancement mandated by regulatory requirements." These automakers see few incentives in place for them to increase research and development money, and believe regulations like the 2007 Corporate Average Fuel Economy (CAFE) standards are achievable now using cheaper and less disruptive technologies. Current CAFE standards for light trucks are 20.7 miles per gallon (mpg) for light trucks and 27.5 miles per gallon for passenger cars. The

Department of Transportation recently required a 1.5 mpg increase for light trucks by 2007

The report's authors warn automakers of relying too heavily on U.S. CAFE trends, because the rest of the world may set their own more stringent standards, and hybrid technology will most likely be the bridge to fuel cell technology, which is the ultimate goal for most automakers.

"[For now] CAFE is manageable, as we have seen with the new CAFE standards for model years 2005 through 2007. However, we think CAFE is a wobbly crutch to lean on, especially for automakers that plan to do business all around the world," the report reads.

Another environmental researcher at the World Resources Institute (WRI) shared similar views. US automakers will soon likely have to comply with various global fuel economy standards, he said. This is especially true as many countries embrace the belief that man-made greenhouse gases, such as carbon dioxide (CO₂) emitted from automobiles are causing global warming. Many people on both sides of the global warming issue say the only way to reduce greenhouse gas emissions from automobiles is to reduce the amount of fuel they consume.

Using this theory, automakers doing business in these countries will eventually have to find ways to make their vehicles less "carbon-intensive." The European Union and Japan have programs in place calling for significant greenhouse gas reductions over the next decade, according to WRI. In the U.S., California, which represents 10 percent of the national car market, has a law to reduce automobile greenhouse gas emissions beginning with model year 2009.

Companies such as Honda and Toyota will be better prepared to do business in this environment because of their current progress with hybrids, WRI said. So far, Detroit automakers are ill prepared for this scenario. Although GM is at the forefront of fuel cell technology, hybrids will be the technology to bridge the gap from internal combustion engines. Most agree that the fuel cell vehicle market place is still about 20 years away.

Nevertheless, Detroit "keeps swinging for the fences at succeeding in the development of fuel cells. They've put all their eggs in one basket," said the WRI. To date, GM has spent \$1 billion on its fuel cell vehicle program. It has announced that 25 percent of all research and development dollars will also go towards fuel cell technology.

30. Senate Rejects Bipartisan Plan to Cap Greenhouse Gases

The U.S. Senate rejected Congress's first attempt to impose mandatory caps on emissions of heat-trapping gases by power plants, automobiles and industry in a victory for the Bush administration. The bill, which failed on a vote of 43 to 55, sought to limit so-called greenhouse gas emissions at 2000 levels by 2010 through a cap-and-trade system.

Senators John McCain, a Republican, and Joseph Lieberman, a Democrat, introduced legislation which would limit carbon dioxide emitted by coal-fired electric plants, factories and vehicles.

Despite the rejection, wringing a vote on the bill was a victory of sorts for its sponsors, given the strong Republican opposition. It was Congress' first vote on a global warming measure.

The Bush administration strongly opposes mandatory caps on carbon

dioxide, warning they could eliminate 600,000 jobs, boost prices of electricity and natural gas by 50 percent and add \$100 billion to the federal deficit by 2025.

McCain said the evidence of rising Earth temperatures is irrefutable, displaying NASA photographs shot from outer space that show a melting Arctic ice cap.

"You can believe me or you can believe your lying eyes," McCain said. "These are facts." Republican Sen. James Inhofe of Oklahoma, who led opposition to the plan, pointed to "flawed science" of global warming studies and called its existence inconclusive.

Inhofe warned carbon caps could force U.S. jobs to be moved to less developed nations that have fewer restrictions on energy development. "This would be the biggest jobs bill for Mexico, India and other developing countries that we could pass," he said.

President Bush in 2001 withdrew the nation from participating in the global Kyoto Protocol to cut carbon dioxide emissions to 5.2 percent below 1990 levels by 2008-12. In its place, Bush has proposed a voluntary industry plan to reduce greenhouse gas intensity - or emissions per unit of U.S. GDP - by 18 percent by 2012.

31. Canada Launches Ethanol Expansion Program

Canada's federal government launched Oct. 20 its Ethanol Expansion Program, part of efforts to reduce greenhouse gas emissions, by inviting industry proposals for construction of new ethanol plants. The government will provide up to C\$60 million (\$46 million) in the first round of the three-year, C\$100 million (\$76 million) program for construction of

plants to begin early in 2004, Natural Resources Minister Herb Dhaliwal said in a statement. Projects will be selected on a competitive basis, based on factors relating to effectiveness in expanding fuel-ethanol production and use and reduction of emissions. The ethanol program is part of Canada's Climate Change Plan goal of having at least 35 percent of Canadian gasoline contain 10 percent ethanol by 2010, the statement said. Reaching that target would reduce emissions by 1.8 megatons a year, the equivalent of removing more than 400,000 vehicles from the road, and would help Canada reduce carbon dioxide emissions 6 percent by 2012, based on 1990 levels, as required under the Kyoto Protocol.

32. Study Supports Tightening Mexican Air Quality Standards



A new study released by the Commission for Environmental

Cooperation (CEC) suggests that children in the border town of Ciudad Juárez, Chihuahua, are being hospitalized and dying because of air pollution at levels that are below Mexico's current health standards.

Between 1997 and 2001, respiratory distress led to 36,087 emergency visits by children less than five years age at two Ciudad Juárez hospitals. But Mexico's health standard for ozone, which mandates the government take action to improve air quality, was only exceeded 14 times.

"Children were being rushed to the

hospital on days when no air quality alarms were sounding," says Dr. Matiana Ramírez Aguilar, a co-investigator in the study from the National Institute of Public Health in Mexico City. "This suggests that lower levels of ozone affect children's respiratory health and that action should be taken to revise Mexico's standards."

The study also found "significant associations"



between particulate matter (PM₁₀)—small particles in the air emitted from such sources as diesel trucks—and child

mortality. Of the 696 children aged one month to one year who died during the study's five-year period, 231 deaths were related to respiratory illness. Ambient PM₁₀ levels exceeded the norm only on a few occasions.

The researchers also indicated that children living in poor neighborhoods were at greatest risk. When levels of PM₁₀ were elevated for two consecutive days, respiratory deaths among infants between a month and a year old in lower income families increased by 82 percent in the following days. But youngsters of higher socio-economic status suffered no similar increase in mortality.

It's the first time a study has measured air pollution impacts on children living in poor conditions along the Mexico-US border.

"Particulate matter appears to have an adverse effect on young children that are already susceptible because of their

reduced capacity to metabolize toxic substances. They're also at higher risk because of social vulnerabilities related to poverty, malnutrition and poor environment," says Ramírez. "Ozone, on the other hand, seems to act as an irritant among all children, and children with asthma."

The NAFTA has led to an increase in truck traffic at border points in Mexico, Canada and the United States. For residents of Ciudad Juárez, this means increased exposure to the pollution emitted from cars and trucks moving between Mexico and the United States. In 2001, more than one million trucks crossed the border between Ciudad Juárez and El Paso, Texas.



Taking this exposure into account, a follow-up study in Ciudad Juárez measured air pollution from 28 school

rooftops near busy highways and border-traffic areas in the region, with field researchers testing the breath flow of 101 students.

Dr. Fernando Holguin, researcher at the Centers for Disease Control and Prevention in Atlanta, says, "Preliminary results suggest that in asthmatic children attending schools that are in close proximity to major roads, traffic density is associated with increased airway inflammation."

33. Energy Bill Stalled; Along With Diesel Incentives

Despite pressure from the White House, Republican leaders were unwilling to drop lawsuit protection for oil companies from a \$31 billion energy bill and it faces

an even tougher fight amid next year's political campaigning. The bill, which included lavish tax breaks, grants and funding for virtually every kind of energy production, was declared dead for this year by Senate Republicans.

Intensive lobbying by the Bush administration failed to persuade House leaders to delete a provision that would shield oil companies from lawsuits for water contamination by MTBE, a gasoline additive. More than 1,500 U.S. cities say they face costly clean ups.

Senate Democrats and moderate Republicans narrowly blocked the energy bill because they opposed the MTBE lawsuit protection. They also criticized the more than \$1 billion in funds earmarked to help MTBE makers switch to other businesses before the additive is banned.

The energy bill's \$31 billion price tag over 10 years included some \$24 billion in tax breaks.

Resuscitating the energy bill will be the top priority for Congress after the first of the year, said Senate Majority Leader Bill Frist as he adjourned the Senate for the Thanksgiving holiday. He also raised the specter of a possible return sometime in mid-December to deal with the FY '04 omnibus appropriations bill, and the promise that lawmakers would spend the break working to secure the votes necessary to pass the energy bill when Congress reconvenes in January.

Among many provisions in the bill, twenty-five years after diesel cars largely disappeared from American highways, it invites a much cleaner incarnation back. These advanced diesels would be eligible for tax credits equal to those in the bill for alternative-fuel vehicles and gas-electric hybrids.

The Joint Committee on Taxation

forecasts that tax credits for advanced technology and alternative-fuel vehicles will cost more than \$2.2 billion from 2004 to 2013. The committee did not break down the cost of credits for diesels versus hybrids and other technologies.

After the oil shocks of the 1970's, diesels had a period of modest popularity in the United States. But as gas prices receded, consumers grew tired of the smoke and smell associated with the engines, as well as quality problems with some diesel offerings from General Motors.

In recent years, automakers have been exploring technologies to clean up diesels, to try to meet tightening emissions and fuel economy regulations in Europe and with an eye to reintroducing diesel engine cars in the United States.

Current diesel technology presents trade-offs. Diesels still emit considerably more smog-forming pollutants like nitrogen oxides, volatile organic chemicals and soot than comparable gasoline cars do. But diesels also improve fuel economy by 30 to 40 percent and reduce oil consumption by about 15 percent, reducing emissions that many scientists link to global warming. For instance, the 2003 Volkswagen Jetta with a four-cylinder gasoline engine and an automatic transmission emits 7.9 to 11.8 pounds of smog-forming pollutants every 15,000 miles, according to data from the Environmental Protection Agency. But a comparable car with a diesel engine emits at least 43.7 pounds of pollutants. On the other hand, the gasoline Jetta gets average combined city and highway mileage of 26 miles a gallon and emits 7.4 tons of greenhouse gases a year, compared with 5.5 tons and 38 m.p.g. for the diesel.

Hybrids and diesels clean enough to meet new regulations are thousands of dollars more expensive than conventional cars. Two sets of tax credits in the energy bill are aimed at helping consumers offset the higher prices.

One credit, ranging from \$400 to \$2,400, would rise depending on how much more fuel efficient a vehicle was than the average vehicle in its class. A second credit, ranging from \$250 to \$1,000, would rise depending on the projected fuel savings over the vehicle's life. Fuel cell vehicles, much more costly, receive higher credits.

Automakers say it will be expensive to make vehicles meet air standards that are scheduled to take effect later in the decade. European automakers are the most determined to try. While many companies sell diesel versions of big trucks and sport utilities, Volkswagen sells diesel versions of several of its cars. Next year, DaimlerChrysler plans to offer a diesel version of the Jeep Liberty and a Mercedes sedan.

These vehicles do not yet meet the tougher thresholds. Part of the problem is that the nation's diesel fuel has too much sulfur. New EPA rules will lower those levels by the end of 2006.

34. Congress Strikes Deal on Californian Emissions Plan

The U.S. Congress reached a compromise on the weekend that would allow California to set new air pollution standards on small, off-road engines while requiring federal regulators to adopt a nationwide emissions-reduction plan for other states by 2005. The agreement - announced by lawmakers involved with the issue - will now likely be included in a \$390 billion catchall spending bill wrapping up Congress'

work for the year, which includes funding for the Environmental Protection Agency.

California has proposed new emissions standards for small engines - like those that power lawn mowers, leaf blowers and other small machines - which would probably require the use of catalytic converters like those mandated for most vehicles.

Supporters of the move said it was a key to the state's efforts to comply with federal clean air requirements.

Missouri Republican Sen. Kit Bond, a top Senate bargainer on the spending bill, had sought to block the rules altogether. But House negotiators rejected the effort, partly at the urging of new California Republican Gov. Arnold Schwarzenegger. One of the largest domestic makers of engines for lawn and garden equipment, Briggs & Stratton Corp., has two factories in Missouri and Bond said some 2,000 jobs in his state would be lost if it moved production overseas.

The compromise would allow California to promulgate its new emissions rules but require that the EPA consider safety issues, including the risk of fire, when approving them. The agency would also be required to propose a new, nationwide emissions standard for off-road engines smaller than 50 horsepower by Dec. 2004 and to adopt it by the end of 2005.

That rule will then apply to all other U.S. states that do not already have their own such standards in place.

35. Oil Execs Claim Rules Will Shut Up To 20 US Refineries

As many as 20 U.S. refineries will close in the next three to five years as refiners

face upgrades too expensive for small plants to comply with new environmental rules, refining executives said at a Houston energy conference. The new rules, which aim to lower the amount of sulfur in gasoline by 2006, will require U.S. refiners to spend up to \$20 billion in plant upgrades for 123 refineries producing automotive fuels. Another 26 U.S. refineries do not produce motor fuels.

The refineries most likely to close are those with crude oil throughput capacities beneath 100,000 barrels per day, the executives said.

The adoption of ethanol by large U.S. states as the gasoline additive to reduce tailpipe emissions will also remove the amount of gasoline produced in the coming years because ethanol adds less volume to the fuel.

California, New York and Connecticut will switch over to ethanol use on Jan. 1, 2004.

Capital demands to comply with the low sulfur regulations will reduce the amount to be spent on expanding refinery capacity, which is how the refiners have kept pace with the 1 percent to 2 percent annual increase in motor fuels demand.

36. Shell to Close 70,000-Barrel-Per-Day US Refinery

Shell Oil Co. has announced it will close a 70,000-barrel-per-day refinery in Bakersfield, California, next October because of declining supplies of the California crude oil processed at the plant. Shell will close the refinery, where 400 people are employed, on Oct. 1, 2004, according to a statement issued by the company.

It takes an after-tax charge of \$200

million in the fourth quarter of this year for dismantlement and environmental costs associated with the closure.

The refinery produces about 20,000 barrels of gasoline per day. That amounts to about 2 percent of California's daily demand for gasoline.

California refiners already rely on gradual increases in refining capacity and imports to the state to keep up with increasing demand.

Shell stressed the declining supply of San Joaquin Valley crude in its decision to shut the plant, which has been in operation since 1932.

The company will keep its Bakersfield terminal in operation and supply fuel to the area from two other refineries in California and a plant in Washington State.

37. Democrats Want Probe on Bush Clean Air Policy

A new top U.S. environmental regulator was sworn into office amid Democratic demands for an investigation into a Bush administration decision to drop air pollution enforcement action against 50 coal-burning power plants. In an about-face, the Environmental Protection Agency acknowledged that it will apply less stringent pollution standards to cases brought against some utilities for Clean Air Act violations.

Word of the change trickled out the day before former Utah Gov. Mike Leavitt took office as EPA administrator.

Democrats called for a probe of the EPA's failure to enforce the previous, stricter rules. They also said the new rules could endanger ongoing cases, where utilities face billions of dollars in dirty air fines.

EPA officials have repeatedly insisted that the changes in the so-called New Source Review section of the 1970 Clean Air Act will not change the tenor of the cases. On Wednesday, the EPA flatly denied it had made any across-the-board decision to drop enforcement actions and said it was "vigorously pursuing" violations filed by EPA lawyers against utilities. On Thursday, an EPA spokeswoman said some cases would be dropped.

The EPA's relaxed rule allows companies to replace aging equipment with their "functional equivalent" without triggering expensive pollution-reduction requirements.

38. State Attorneys General Ask Courts To Block EPA Rule Change

More than a dozen state attorneys general sought to block the federal government from implementing a rule change they argued would lead to more air pollution from the nation's power plants. Fourteen states and a number of cities, including New York, San Francisco, and Washington, D.C., are seeking a court injunction to short-circuit a measure by the Environmental Protection Agency before it goes in effect Dec. 26. They want to block EPA's loosening of Clean Air Act regulations that would allow older power plants, refineries, and factories to modernize without having to install pollution controls.

To win an injunction, the states must show they are likely to succeed at a full trial of the issues and that irreparable harm would be done if the rule change was enacted even for a short period of time.

The suit was filed in the U.S. Court of Appeals in Washington, D.C., by the following states: New York, California,

Connecticut, Illinois, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New Mexico, Pennsylvania, Rhode Island, Vermont, and Wisconsin. All but one of the attorneys general representing the states are Democrats. Peter Heed of New Hampshire is the sole Republican.

The states had filed suit against the EPA last month but are now seeking a quick court intervention to block the rule change before it can take effect.

39. New York City Adopts Strong Diesel Control Bill

The New York City Council has passed a bill that requires the use of ultra-low sulfur diesel fuel and advanced emission controls to reduce particulate matter and nitrogen oxide emissions from all construction equipment used in City funded projects and contracts.

NRDC, one of the organizations that worked hardest for passage of the bill, noted that dropping sulfur levels from the current 3,400 parts-per-million (ppm) to 15 ppm will have important air quality benefits in many neighborhoods throughout the city. In addition, by making NYC a laboratory for cleaner diesel fuels and emission control technologies that can be used in construction settings, it will also be helping to make the case that the EPA nonroad diesel proposal is technically feasible. Finally, given that no other city in the world has such a comprehensive bill, it could have important precedential value.

Strong support for this bill came from a coalition effort that included Environmental Defense, the American Lung Association, WE ACT and NY LCCV.

40. Caterpillar Paid \$128 Million

For Missing Emission-Reductions Deadline

Caterpillar paid \$128 million in penalties in 2003 after failing to meet an Environmental Protection Agency deadline for reducing emissions from new engine models. The Justice Department's Environmental and Natural Resources Division announced the "record-breaking recovery figure" Dec. 16 as part of its fiscal year 2003 summary of civil penalties from environmental cases. The penalties stem from a consent agreement reached in October 1998 between the Clinton administration and diesel engine manufacturers. Caterpillar and six other diesel engine makers agreed to implement industry wide standards for nonmethane hydrocarbons and NOx fifteen months ahead of a 2004 deadline established under an EPA rule made final in August 2000. The engine makers agreed to the "pull-ahead requirement" to settle alleged violations of Clean Air Act rules stemming from the use of equipment known as "defeat devices" that concealed actual emissions of nonmethane hydrocarbons and NOx.

Caterpillar, however, was the only manufacturer to miss the Oct. 1, 2002, deadline for the emission standards, which apply to model years 2004 and beyond. That triggered a penalty provision, which allowed the manufacturer to continue producing the noncomplying engines, but allowed EPA to assess fines on a per-engine basis.

In September 2002, the U.S. District Court for the District of Columbia rejected requests from Caterpillar and Detroit Diesel Corp. to postpone the new emission standards and the penalties. The penalties ranged from a few hundred dollars to as much as \$12,000, depending on the class of the engine and the degree to which it

exceeded the emission standards.

Caterpillar opted to pay the nonconformance penalties until work on emissions-reduction technology different from that used by the other manufacturers was completed. The company's Advanced Combustion Emission Reduction Technology (ACERT) was approved by EPA in January 2003 for its fleet of C7 and C9 engines used in highway trucks, school buses, and transit buses. Since then, the ACERT technology also has been approved for Caterpillar's C13 and C15 engines, used in vehicles such as dump trucks, cement mixers, tanker trucks, fire trucks, and freight carriers.

41. U.S. Officials Defend Alternative Plans To Cut Emissions At COP-9

The U.S. delegation to the Ninth Conference of the Parties (COP-9) to the U.N. Framework Convention on Climate Change (UNFCCC) held the first news briefing of the 12-day meeting and used the occasion to highlight its accomplishments in reducing emissions. At the briefing, U.S. officials said domestic emissions levels of greenhouse gases, including carbon dioxide, stabilized from 2002 to 2003 after years of dramatic rises. The delegation, reportedly the largest and highest-ranking ever to represent the United States at a climate change meeting, also sponsored a large multimedia exhibit at the main conference center that proposed linking emissions levels with economic growth, an indicator called "carbon intensity."

The U.S. comments coincided with the publication of an opinion page essay from Undersecretary of State for Global Affairs Paula Dobriansky, who called the Kyoto agreement "an unrealistic and ever-tightening regulatory

straightjacket." The article, published Dec. 1 in the London-based *Financial Times*, called for a greater emphasis on new technologies that could help combat climate change without the economic problems that the United States has long said represent a "fatal flaw" in the Kyoto Protocol.

Advocates of the Kyoto Protocol brushed aside the op-ed piece and other U.S. assertions on the issues related to climate change. But the statements clearly raised the stakes during an already important juncture for the Kyoto agreement.

Joke Waller-Hunter, director of the framework convention, used a press briefing to make the case that the Milan talks were "crucial" even without entry into force on the immediate horizon for the Kyoto Protocol. Waller-Hunter said that progress with the Clean Development Mechanism--the part of the protocol that allows for investments in environmentally friendly projects to be used to offset some increased emissions--and the prospect of the first real review of overall progress related to the Kyoto agreement represented great strides forward.

For example, she said, information that has only recently been compiled showed that overall emissions for the world's industrialized countries declined by 6 percent between 1990 and 2000, in line with the 5.2 percent reduction that the Kyoto Protocol requires by no later than 2012. But she noted that the richest countries actually increased emissions by 8 percent over that period, a rise compensated for by a 40 percent reduction from so-called "countries in transition," mostly former Soviet Bloc economies that collapsed after the 1990 baseline year. She said that when current growth rates are taken into account, the overall increase in emissions from industrialized countries

over the 20-year period ending in 2010 will show a 9 percent increase, thanks mostly to a 17 percent increase in the richest countries and a decline of just 15 percent from the countries in transition.

The stabilization in U.S. emissions reported in the day's first briefing was not included in the figures Waller-Hunter quoted, since they have not been officially reported to the UNFCCC.

Some 4,500 participants from 180 countries were on hand for the meeting, which concluded Dec. 12.

Instead of addressing climate change with a United Nations-sponsored plan to reduce greenhouse gas emissions within a decade, the United States is banking on the emergence of cleaner-burning technologies, U.S. representatives said. Harlan Watson, senior U.S. climate negotiator and head of the U.S. delegation suggested that by 2040 or 2050, a new hydrogen economy could fuel stationary and mobile applications as well as be produced from renewable resources.

The United States says its goal in the longer term is the same as that of the framework convention, but U.S. officials insist such a goal will not be reached by the Kyoto protocol or any other policy that does not result in a net zero emission system. That system cannot be realized without market support for the new technology, the U.S. officials said.

42. Canada Sets Regulations for Small Engines

Canada has finalized regulations restricting emissions from small gasoline-powered engines in equipment such as lawn mowers, chain saws, and snow blowers. The Off-Road Small Spark-Ignition Engine Emission

Regulations, which harmonize Canadian emissions limits with U.S. Environmental Protection Agency standards, address the significant contribution of small engines to air pollution.

Although comments were generally supportive of the regulatory approach after the regulations were published in draft form March 29, some concerns were raised that led to minor modifications in the final version, according to a regulatory impact analysis statement published with the final amendments. The Outdoor Power Equipment Institute (OPEI) raised concerns about Canada-only niche products used by the forestry industry, and Environment Canada concluded that the best option to keep those essential products available in Canada was to provide alternative exhaust emission standards for them, the impact analysis statement said. The final regulations provide less stringent standards for hand-held engines not covered by an EPA certificate when less than 2,000 engines of a given model are sold annually in Canada, it said.

The OPEI also pointed to instances of engines used for Canadian and U.S. versions of the same machine that have minor variations unrelated to their emissions that could make it problematic to meet the regulatory requirement for "concurrent sale" in Canada and the United States, it said. The final regulations clarify the scope of engines deemed to be "covered by an EPA certificate and sold concurrently in Canada and in the United States" by specifying that the EPA standards are to be followed in such cases, it said.

A number of technical changes have also been made to the regulations to better align them with U.S. standards, including: exclusion of small spark-ignition engines designed to propel vessels; exclusion of engines that are

being exported; a requirement for labeling of replacement engines; and a new requirement for a declaration for engines imported solely for exhibition, demonstration, evaluation, or testing.

Overall, the regulations, which would take effect for engines in the 2005 and later model years, would reduce or control emissions of hydrocarbons, nitrogen oxides, carbon monoxide, and a range of toxic substances, including volatile organic compounds. Environment Canada has estimated that, when fully implemented, they will reduce emissions of smog-forming pollutants from off-road, small, spark-ignition engines by about 44 percent.

43. New EPA Head Touts Plan To Improve U.S. Air Quality

The new head of the Environmental Protection Agency has pledged to pursue a "500-day plan" to improve air quality in the United States. In his first public speech since he took the job of EPA administrator, Mike Leavitt said the EPA would be sending letters to U.S. cities that had not complied with regulations to reduce ozone. He also said the EPA would work with states to ensure compliance with air-quality standards for ozone and soot pollution.

In his speech to EPA employees, to which reporters were also invited, Leavitt said he would be a strong advocate for EPA positions within the administration. "My commitment is this: Once we have finished our deliberations at EPA, I will be a strong advocate for our positions within the interagency process," he said.

Leavitt, the former governor of Utah, said he was ready to take enforcement action to ensure compliance of EPA regulations and clean air laws. "Without consistent and smart enforcement, an

environmental standard becomes an empty vessel. Anyone who evades the law should feel the full weight of the law until compliance is met," he said.

Green groups expressed skepticism about his promises. Several days before Leavitt was sworn in, EPA's top enforcement official said the agency would not pursue lawsuits against coal-burning utilities, oil refineries, and other industrial sites for past dirty air violation now that the agency had eased pollution rules for plants undergoing major upgrades.

Leavitt said he would push Congress to pass the Bush administration's Clear Skies initiative to cut power plant emissions of sulfur dioxide, nitrogen oxides, and mercury. The Bush plan to control smog, acid rain, and soot is opposed by environmentalists who say it gives utilities too much leeway and does not address global warming.

44. New EPA Head Chooses Weaker Mercury Control Plan

Coal-fired power plants are the nation's largest source of unregulated airborne mercury pollution, sending an estimated 48 tons into the atmosphere annually. The mercury can enter the food chain and threaten public health, especially for children and pregnant women who eat tainted fish.

Until recently, the EPA appeared on track to issue new rules this month requiring the nation's 1,100 coal- and oil-fired power plants to meet a "maximum achievable control technology" (MACT) standard to sharply reduce the mercury pollutants within three years. That approach, however, had reportedly run into strong resistance from industry groups, which say the regulations would be excessively costly and would be impossible to meet with

existing anti-pollution technology. Instead, the administration embraced a mandatory "cap and trade" program, similar to the program to combat acid rain that was begun in 1990. The new program, which would reduce mercury emissions by nearly 70 percent by 2018, would allow utilities to buy emissions "credits" from cleaner-operating plants to meet an overall industry target without having to install new scrubbers or anti-pollution equipment on every plant.

The EPA also proposed a modest MACT standard to reduce mercury emissions by 29 percent by the end of 2007. But officials made it clear they were not interested in that approach and would press for public approval of the cap and trade plan during public hearings. The administration hopes to issue a final regulation within a year.

The Bush administration was required to issue a mercury reduction plan by Dec. 15 under the terms of a legal agreement reached by the EPA and the Sierra Club and the Natural Resources Defense Council.

The Clinton administration had sought three years ago to require a cut of as much as 90 percent in mercury emissions by utilities by 2008.

Environmental groups say a trading system would allow some utilities with aging equipment to simply buy credits from others that have achieved their pollution targets. That means the health of people living in certain communities would continue to be jeopardized, they said.

They also complained the Bush administration is too eager to offer concessions to utilities. Records reportedly show utilities like American Electric Power Co. Inc., PacifiCorp, and DTE Energy Co. met with White House

officials over the last few months to discuss pollution cuts.

45. New Jersey One Step Closer To Mandating Zero-Emission Vehicles

New Jersey may be the next state to adopt California's automobile emissions standards, including a provision requiring zero-emission vehicles. A bill authorizing the California rule's adoption passed out of the state senate's Budget and Appropriations Committee and could come up for a vote on the Senate floor before the end of the month.

The bill would require automakers doing business in New Jersey to sell cars and trucks containing the latest anti-pollution technology. In its initial stages, 2 percent of all vehicles sold in the state must emit no or almost no tailpipe emissions. That number moves up to 10 percent by 2010. Environmentalists maintain the bill would reduce smog pollution by 19 percent by 2020, but critics say it has the potential to cost New Jersey residents and businesses millions of dollars a year.

The bill's sponsors say it is necessary if New Jersey is ever going to meet federal clean air standards. State Sen. John Adler said that every county in the state is in violation of EPA's smog standards and some are "wildly so."

The language of the bill does not mention what technologies will be used to meet the requirements -- whether automakers will be required to sell all-battery electric cars (zero-emission vehicles or ZEVs) or gasoline/electric hybrid cars such as Toyota's Prius and Honda's Insight. Adler said that decision will be up to the market and scientists to decide.

But critics, including the state's

Chamber of Commerce, argue that the law will make them sell all electric battery vehicles that are expensive and sell poorly on the market, according to a Chamber backgrounder.

The amended California rules, which New Jersey must comply with if its version makes it out of both legislative chambers, requires automakers to make 250 fuel cell cars by 2008, or sell advanced partial ZEVs, such as hybrids, to meet the remainder of the sales requirement. By 2015 through 2017, the ultimate sales goal of the amended rule is 50,000 fuel cell vehicles, according to CARB. Since fuel cells are for now an uncertain technology, the rule allows automakers to take credit for every fuel cell vehicle available in all the states participating in the program.

The New Jersey clean-car law made it out of the state Senate Budget and Appropriations Committee by an 8 to four vote. It is still pending action from the Assembly Budget Committee. Proponents have until Jan. 13 to pass it out of both houses and get it to the governor's desk.

46. Unless Governor OK's Exception, CARB May Revisit ZEV Mandate

California's zero emission vehicles (ZEV) mandate, which in its latest version would require automakers to produce 250 fuel-cell vehicles among other measures, may be headed back to the California Air Resources Board for a new review, unless Gov. Arnold Schwarzenegger makes an exception to his order freezing all regulations that were pending when he took office. The California Environmental Protection Agency has asked for a waiver from the freeze.

If California's Office of Administrative

Law (OAL) does not act to make the regulations final by January 10, the process may have to begin over, with a 15-day notice and another hearing before CARB. OAL reviews proposed state regulation to assure they comply with all other state rules and regulations. Generally this process takes 30 days. California's Administrative Procedures Act sets a one-year deadline from the date a 45-day notice for comment was issued to finalize the regulations. The 45-day notice for the ZEV regulations was issued January 10, 2003.

Failure to act would stall at least two initiatives related to the California regulations, which after ten years of hearings, negotiations and litigation have the blessing of the major parties involved. A lawsuit brought by General Motors and DaimlerChrysler was settled based on the latest version of the ZEV mandate but is contingent on final approval. And adoption of the ZEV regulations by three Northeast states -- New York, Massachusetts and Vermont -- that have adopted California's clean air rules, which the ZEV regulations are a part of, cannot go forward with their ZEV programs until final adoption by California.

47. U.S. Judge Rejects Bush Administration Snowmobile Plan

A federal judge has thrown out a Bush administration proposal that shelved a Clinton-era plan to ban snowmobiles from Yellowstone National Park — hours before the winter season was set to begin. U.S. District Judge Emmet Sullivan in Washington ruled against a revised plan that scrapped a decision from the Clinton administration. The new plan would have allowed fewer snowmobiles than in years past and called for newer and quieter snowmobiles.

The snowmobile industry lobbied the Bush administration to reject the 2000 plan that would have phased snowmobiles out because the vehicles cause air and noise pollution.

Suzanne Lewis, superintendent of Yellowstone, told reporters in a teleconference call from Washington that only 493 snowmobiles will be allowed into the park instead of 950 that would have been allowed under the most recent plan. Another 50 snowmobiles will be allowed in the nearby Grand Teton National Park. By next year no snowmobiles will be allowed in the park. Instead, visitors will have to use mass-transit snow coaches.

The Greater Yellowstone Coalition had sued the federal government to stop the new plan.

Air pollution at the park on certain days was so bad that in past years park rangers would have to wear masks. Lewis said the park would continue to monitor air quality.

48. Railroads Push EPA To Delay Low-Sulfur Rule; STAPPA/ALAPCO Adamant

Railroad company representatives are meeting with EPA officials to push for a delay to ultra-low sulfur diesel fuel requirements that the agency has tentatively eyed for no later than 2012. The industry argues that the required pollution reductions would be too costly and technologically infeasible. But state and local air officials are adamantly opposed to any delay to the fuel requirements, arguing that they believe the costs are minimal compared with the level of pollution that would be reduced and that EPA is already planning sufficient time to comply.

The Association of American Railroads

(AAR) has assembled a “locomotives emissions committee” that includes engine manufacturers and emission-treatment suppliers, and is meeting with EPA officials concerning the agency’s upcoming non-road diesel engine emissions rule.

An advanced notice of public rulemaking for the non-road regulation is scheduled to be unveiled in April of next year. A 15 parts-per-million (ppm) sulfur limit for diesel fuel is planned as part of the rulemaking, which is largely intended to set tighter emission standards for new non-road diesel engines. EPA officials are deciding whether to separate the ultra low-sulfur rule for locomotive and marine engines from the core non-road engine standards rule.

The railroad industry is seeking to push back the ultra low-sulfur diesel fuel compliance requirements from the 2010-12 timeframe tentatively envisioned by EPA, “because we don’t expect the technology to take advantage of that low-sulfur fuel, and that would be a very costly way to control [particulate matter],” says industry. “The locomotive committee is working with EPA and discussing what is reasonable with EPA.” The industry contends that the necessary PM-filter technology “is not going to be available” in the timeframe EPA is now considering. The industry says EPA officials have already expressed their own doubts about the feasibility of requiring 15-ppm sulfur diesel fuel in locomotives in 2010, and that it appears there is a good chance a delay will be proposed. Industry officials are currently discussing with EPA “what a reasonable approach would be.”

“What we need to do is develop the technology to reduce emissions from locomotives, and when that is developed, then we’ll get the utilization out of low-sulfur diesel fuel,” industry adds. However, industry acknowledges,

“Low-sulfur fuel would reduce emissions, but the cost for reducing it would be exorbitantly high. Paying for a premium fuel is expensive.”

The State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), while generally supportive of EPA’s non-road engine control proposal in general, are adamant that locomotive and marine engines be required to utilize ultra low-sulfur fuel by 2012. “We feel it is really important since they are a significant part of the non-road contribution,” says the group.

STAPPA/ALAPCO is also pressing EPA to connect its fuel rules with new engine standards for 2010 locomotives similar in stringency as those expected for other non-road engines. STAPPA/ALAPCO rejects the locomotive industry arguments. “If EPA is asking all the other sectors -- passenger cars, trucks, SUVs and non-road engine equipment -- to meet low-sulfur fuel standards, why should marine and locomotives get a special break? Especially with the sufficient lead time EPA is likely to give.”

STAPPA/ALAPCO officials say they and environmental groups are currently seeking a meeting with EPA Administrator Mike Leavitt to discuss the non-road engine regulatory proposal.

49. Justices Will Hear Appeal on Cheney's Energy Panel

The Supreme Court has agreed to hear an appeal by Vice President Dick Cheney from a lower court's order requiring limited disclosure of the identities of participants in the task force that developed an energy policy under his leadership early in the Bush administration. More than two years after the National Energy Policy

Development Group completed its work and shut down; the administration has continued to guard the secrecy of its operations, including the names of energy industry representatives who consulted with the cabinet members and other federal officials who made up the task force's official membership.

Lawsuits filed by two organizations, Judicial Watch and the Sierra Club, challenged the secrecy as a violation of the Federal Advisory Committee Act, which requires committees that meet the law's definition to conduct their business in public. The question for the Supreme Court now is whether the vice president's office must submit to limited pretrial discovery sufficient to allow the Federal District Court here to decide whether the advisory committee law applies to the task force.

The legal question is a complicated amalgam of jurisdictional and procedural issues, but the stakes, as framed in Mr. Cheney's Supreme Court appeal, are quite high. His appeal argues that the district court's order for limited discovery, and a decision by the federal appeals court here not to block that order, "present fundamental separation-of-powers questions" and "threaten substantial interference with vital executive branch functions." "Any discovery" would be improper, the appeal filed for Mr. Cheney by Solicitor General Theodore B. Olson asserts.

Under the Federal Advisory Committee Act, committees set up by the president or by federal agencies to provide advice must generally conduct their business in public. Committees composed entirely of federal officials and employees are exempt from this requirement. The formal membership of the National Energy Policy Development Group was composed entirely of cabinet members and other federal officials, and on this basis, the vice president's office resisted

making any disclosures in response to the lawsuits.

However, in a decision 10 years ago involving a somewhat similar effort to obtain information about the health care task force that Hillary Rodham Clinton ran when she was first lady, the United States Court of Appeals for the District of Columbia Circuit ruled that a formal membership limited to federal officials would not necessarily entitle a task force to the exemption if other people acting as consultants or advisers were the equivalent of "de facto members."

Ruling in the Cheney case in July 2002, the district court said the Sierra Club and Judicial Watch were entitled to discovery to find out whether private people had taken part in the work of the energy task force to a degree sufficient to bring the task force within the coverage of the law. The district judge, Emmet G. Sullivan, said that if this limited discovery showed that the law did not apply, the suits would be dismissed and there would be no need to address the separation of powers or other potentially difficult issues. Rather than proceeding under this ruling, the vice president appealed it, arguing that complying with the order would require him to make some of the same disclosures that it was his position he should not ever have to make.

Citing the Supreme Court's 1997 decision requiring President Clinton to submit to discovery in the lawsuit brought against him by Paula Jones, the appeals court said: "Indeed, the Supreme Court has consistently held that because the president is not 'above the law,' he is subject to judicial process."

Judicial Watch, in urging the justices to reject the vice president's appeal said that through multiple appeals, the administration had "succeeded

splendidly in delaying the advancement of this case" while the task force's proposals were being presented to Congress. "This transparent strategy of 'running out the clock' should not be tolerated," Judicial Watch said.

50. Justices Agree To Hear Appeal On Mexican Trucks

The Supreme Court also agreed to review a ruling requiring an extensive review of the environmental consequences of opening all American highways to Mexican trucks. The United States Court of Appeals for the Ninth Circuit, in San Francisco, ruled last January that the administration had acted "arbitrarily and capriciously" by conducting only a limited rather than a full environmental impact review of the consequences of lifting a 21-year-old policy that restricted Mexican trucks to a 20-mile-wide border zone.

The appeals court's decision blocked the change. President Bush had announced his intention to open the border after an international arbitration panel ruled in early 2001 that the policy violated the North American Free Trade Agreement.

The environmental lawsuit was brought by a consumer and labor coalition. They argued that bringing in an estimated 30,000 Mexican trucks annually, many built with poor emissions controls, would seriously hurt air quality, especially in California and Texas.

In its appeal the administration said the Ninth Circuit's decision was causing "serious and ongoing harm" to relations with Mexico, which had brought the case under NAFTA. "The president of the United States must be able to act quickly and with assurance to implement the decisions that are entrusted personally to him," said Mr. Olson, the

solicitor general.

51. Canadian Government Offers Rebates To Reduce Idling of Trucks

Canada will provide rebates totaling C\$21.3 million (\$16.4 million) to domestic trucking companies to help offset the costs of installing devices to reducing engine idling times for commercial vehicles, Natural Resources Minister Herb Dhaliwal said Nov. 28. The ongoing Commercial Transportation Energy Efficiency Rebate Program will provide between C\$350 (\$270) and C\$1,400 (\$1,080) for individual vehicles to subsidize purchases of equipment to reduce idling made on or after Aug. 12, 2003, Dhaliwal said in a statement. "The rebates that the program offers will help truck drivers reduce the greenhouse gas emissions that result from doing their jobs," he said.

The program also will help record reductions in greenhouse gas emissions for between 12 months and 18 months after the equipment is installed. The use of anti-idling equipment could eliminate between 40 percent and 90 percent of greenhouse gases emitted from idling commercial vehicles, as one hour of idling per day produces 20.5 tons of greenhouse gases per year, it said. Reducing commercial vehicle idling time can play a role in helping Canada meet its Kyoto Protocol commitment to reduce greenhouse gas emissions 6 percent from 1990 levels by 2012.

The rebate will apply to three specific types of equipment that are used to reduce engine idling: fuel-fired interior heaters, engine coolant heaters, and auxiliary power generators, according to a Natural Resources Canada background document. The use of a fuel-fired interior heater is estimated to save between 2.2 liters and 3.7 liters of gasoline per hour, the background

document said. At the heating use level of 1,450 hours per year for an average commercial vehicle, that would reduce greenhouse gas emissions by between 8.9 tons and 15.0 tons per year per vehicle, the background document said. An engine coolant heater, which is used to feed a vehicle's interior heating system, could save up to 3.5 liters of gasoline per hour, providing an emissions reduction of up to 14.2 tons per year per vehicle, it said. For both fuel-fired interior heaters and engine coolant heaters, the program will rebate 19 percent of the Manufacturer's Suggested Retail Price (MSRP) to a maximum of C\$350 (\$270), it said. Auxiliary power generators, small internal combustion engines running on diesel fuel that provide heating and air conditioning, as well as generating electricity for electrical appliances, battery charging, and engine preheating, are estimated to reduce engine idling by 1,840 hours per year, the background document said. That would save between 3.2 liters and 3.6 liters of gasoline per hour and reduce emissions by 16.5 tons to 18.5 tons per year per vehicle, it said. For those products, the program would rebate 19 percent of the MSRP to a maximum of C\$1,400 (\$1,078), it said.

The program also will help suppliers of designated equipment qualify their products for the rebate initiative, the background document said. The suppliers will issue the rebates to customers, and they will be responsible for recording the reductions in emissions achieved by each vehicle over a period of 12 months to 18 months following purchase of the anti-idling equipment, the background document said.

ASIA-PACIFIC

52. China Set to Act on Fuel Economy

The Chinese government is preparing to impose minimum fuel economy standards on new cars for the first time. The new standards are intended both to save energy and to force automakers to introduce more advanced technologies in China, in hopes of easing the nation's swiftly rising dependence on oil imports from the Middle East.

Zhang Jianwei, the vice president and top technical official of the Chinese agency that writes vehicle standards, said that energy security was the paramount concern in drafting the new automotive fuel economy rules.

"China has become an important importer of oil so it has to have regulations to save energy," said Mr. Zhang, who is also deputy secretary of the 39-member interagency committee that approved the rules at a meeting in November.

China was a net oil exporter until a decade ago, but its output has not kept up with soaring demand. It now depends on imports of oil for one-third of its needs, mainly from Saudi Arabia and Angola.

The International Energy Agency predicts that by 2030, the volume of China's oil imports will equal American imports now.

Various Chinese government agencies still have three months to review the legal language in the fuel economy rules. But Mr. Zhang said that the rules in draft form were the product of a very strong consensus among government agencies and that "the technical content won't be changed."

The new standards are based on a vehicle's weight — lighter vehicles must

go the farthest on a gallon — and on the type of transmission, with manual-shift cars required to go farther than those with less efficient automatic transmissions.

All new sport utility vehicles and minivans in China would be required to meet the same standards as automatic-shift cars of the same weight. The Chinese rules do not cover pickups or commercial trucks.

Typically, heavy vehicles are much harder on fuel than light ones, but the new Chinese standards permit the heavy vehicles to get only slightly worse gas mileage. As a result, they provide an incentive for manufacturers to offer smaller, lighter vehicles, which will be easier to design.

53. Tokyo's Lowest Temperature Up 4° C Over Last 100 Years

On August 7, 2003, Japan's Ministry of the Environment (MOE) released a report of their study of influences on the environment by the heat-island effect (abnormal atmospheric warming due to high concentrations of heat-absorbing buildings & roads and the lack of greenery). The study showed that, compared with 100 years ago, the lowest temperature recorded in central Tokyo (Otemachi) increased by approximately four degrees Celsius, double the rises in Tokyo's peripheral cities - Yokohama, Kumagaya, Utsunomiya and Choshi - illustrating the prominence of the heat-island effect.

A simulation showed that Tokyo would cool down by a maximum of 0.3 degrees if 3.8 percent of the land area of Tokyo's 23 wards were planted with trees, more rooftop gardens planted, and energy conservation measures implemented to cut exhaust heat.

MOE plans to continue its research on environmental impacts of the heat-island effect and take measurements over a wider area to clarify its mechanisms.

54. Hong Kong Agency Reports Improvements In Air Quality

Hong Kong has reduced some forms of air pollution and will renew efforts to reduce all forms of pollution in the territory, the government environmental watchdog agency said in its annual report, *Environment Hong Kong 2003*. The report, issued by Hong Kong's Environmental Protection Department in September, described the Chinese Special Administrative Region's air, water, and noise pollution, waste disposal, and land management situation in 2002.

In a statement released with the report, Hong Kong Secretary for the Environment Sarah Liao touted some success in cooperating with mainland China to limit cross-border air pollution. Hong Kong has long blamed factories in mainland China for being major sources of Hong Kong's air pollution, particularly sulfur dioxide and particulate matter. Liao highlighted Hong Kong's agreement with China's neighboring Guangdong Province to implement stricter air emission standards for four major pollutants.

"Taking 1997 as the base year, both governments have agreed to try to reduce (breathable) suspended particulates by 55 percent by 2010, sulfur dioxide levels by 40 percent, nitrogen oxides by 20 percent, and volatile organic compounds by 55 percent," the report said. "These targets are based on what could be achievable within current technologies, such as using cleaner fuel for power generation or tightening vehicle emission standards."

Hong Kong and Guangdong have said they will draft rules by the end of 2003 to meet the targets.

55. Nissan Diesel to Utilize SCR to Reduce NOx in Truck Emissions

Nissan Diesel Motor Co. has announced that it will begin next year to market heavy-duty trucks that meet standards set by new national long-term regulations for automobile emissions. The company has decided to release the new model trucks in the autumn of 2004, a year before the new regulations go into effect in October 2005. The new regulations, said to be the most stringent in the world regarding gas emissions by diesel-powered vehicles, require reductions in the emission of particulate matter (PM) and nitrogen oxides (NOx) by 90 and 60 percent respectively, compared to current levels.

With its new-generation system utilizing an ultra-high-pressure unit injector, the company has successfully created engines with low fuel consumption and PM emissions. It has also developed a selective catalytic reduction (SCR) system using urea, a new technology that can remove NOx through the chemical reactions of catalysts that occur when urea solution is sprayed onto emission gases. Thus, the engines can attain both fuel efficiency and less NOx in the emissions of heavy trucks, for which efficiency plays a vital role.

56. Anti-Global Warming Tax of 3,400 Yen per Ton of Carbon Seen Necessary

On 29 August, 2003, Japan's Ministry of the Environment released a detailed report that describes an environmental (anti-global warming) tax system. The report proposes to introduce the tax in

fiscal 2005, with a view to reducing greenhouse gas emissions. The tax would be levied on all fossil fuels, including petroleum, coal and natural gas, and the tax rates would vary depending on the amount of carbon contained in each type of fuel. The report also says that raising the price of fossil fuels will help discourage their consumption and contribute to the development of alternative energy sources and new environment-related technologies.

To achieve the emissions reduction target of six percent set under the Kyoto Protocol, the tax rate on carbon will have to be 3,400 yen (about U.S. \$28, @ \$1=120 yen) per ton, equivalent to a price increase of two yen (about 1.7 U.S. cents) per liter of gasoline. All of the carbon tax revenues will be earmarked for global warming prevention measures, such as promoting energy-saving appliances and houses and supporting forest management. The Ministry estimates that this will cut greenhouse gases by two percent.

If the proposed tax rate is introduced, an average household with a car will have to pay about 5,500 yen (about US \$46) per year.

While the Ministry of the Environment has invited public comment on the report, it has already worked with businesses and other concerned government ministries and agencies to promote the new tax system. However, many businesses that would be forced to shoulder the new tax burden are raising their voices against the system, saying that it could harm the Japanese economy. The tax plan is thus expected to have a rough passage.

57. Tokyo Anti-Diesel Campaign Appears To Cut PM Emissions

Data compiled and released Nov. 9 by Tokyo air quality monitoring stations reveal a 30 percent drop in year-on-year particulate matter (PM) emissions, suggesting the city's "Say No to Diesel!" campaign is working. Starting Oct. 1, the Tokyo municipal government imposed a city ordinance requiring fleet owners and independently operated diesel-powered trucks and buses to install diesel particulate filters. The city Nov. 4 ordered operators of four trucks not equipped with the filter to cease using them until the filter modification is made and reported to the city. Data from 34 observation points along major arteries in the city showed that in October, PM emissions weighed in 32 micrograms per cubic meter of air, down from 46 μm^3 a year ago. In early November, data continued to show much lower PM emissions than a year ago although the manager of the city's Air Quality Maintenance Division stressed that the data are tentative and the data stream not long enough to reveal a clear trend.

58. New Australian Fuel Rules To Force Refiners To Make Tough Decisions

Australia's oil refiners need to decide in the next six-to-12 months whether to spend an estimated A\$1 billion (\$720 million) to meet a 2006 deadline for a raft of new gasoline quality standards, according to industry sources. The new specifications, designed to bring Australia in line with European standards, also threaten to squeeze China - Asia's top gasoline exporter - out of the supply chain as soon as January.

Tired of smog-choked streets, many governments in Asia, like those in India and the Philippines, are getting tougher

on fuel standards and emissions to raise air quality in some of the world's most populous cities.

The Australian Institute of Petroleum (AIP) estimates Australia's new specifications being phased in over the next two years will cost refiners A\$1 billion and says three of the four oil majors dominating the sector have "indicated" they are willing to spend the money. ExxonMobil, which mothballed its 80,000-bpd Port Stanvac refinery in South Australia in July because the plant was unable to compete in the tough Asia-Pacific market, was the only firm that had not indicated whether it would make the investment.

More stringent specifications targeted for implementation by 2010 are under debate by the industry, which the AIP says will require additional expenditure of A\$1 billion.

Shell, BP, Caltex and ExxonMobil comprise Australia's more than 800,000 barrels per day (bpd) refining industry.

Australia typically imports six to seven percent of the 327,400 bpd of petrol it consumes and some foreign suppliers may not be willing to meet the new requirements.

China exported a little over 180,000 bpd of gasoline in the first nine months of the year. Chinese refiners supplying Australia face a one percent cap on the additive methyl tertiary butyl ether (MTBE) from January 1 next year in addition to a limit on olefins, which contribute to smog. Australian refiners do not use MTBE - a chemical added to gasoline to boost its octane count and cut down on smog - but there is currently no limit on the additive in China.

Exporters like Singapore, Taiwan and South Korea were likely to step in to

replace China's supplies.

59. 100 Million People Inhale Polluted Air in China

Two in every five Chinese town and city dwellers, or over 100 million people, are inhaling polluted air every day, an official with the Chinese national legislature has announced. Mao Rubai, chairman of the Environment and Resources Protection Committee of the 10th National People's Congress (NPC), said that more than a third of the 340 cities monitored by the committee reported level III or worse air quality, indicating polluted or poor air quality.

The China Environmental Monitoring Center notes that air quality in the country's urban areas is classified in five levels: level I or excellent, level II or fairly good, level III or slightly polluted, level IV or poor, and level V or hazardous.

Mao told a symposium on environment and resources protection that the poor environmental quality could be attributed to China's large discharges of pollutants over the long time. For instance, discharging sulfur dioxide in high intensity over the years had subjected a third of China's land to acid rain.

Mao and his committee vowed to carry out a series of measures to protect the environment, including the inspection of the enforcement of China's laws on environmental protection.

It is also crucial to enhance the general public's awareness in environmental protection, he added.

60. Auto Catalysts To Lift Japan 2003 Platinum Demand

Japan is expected to see a rise in platinum demand for auto catalysts in

2003 after the introduction of new vehicle emission standards according to Platinum 2003 Interim Review, released in London by Johnson Matthey. It said Japanese platinum auto catalyst demand was expected to rise by 14 percent to 490,000 ounces, despite a forecast drop in Japanese car production of 3.8 percent during the year.

JM attributed the anticipated rise in volume - to more than double the level of demand five years ago - largely to new emissions standards for heavy-duty diesel vehicles put into effect in the capital from October 1. The initiative will boost platinum demand for catalytic converters that clean exhaust fumes, as vehicles that do not meet the new standard must be modified and fitted with auto catalysts and particulate filters.

For sister metal palladium, the report said auto catalyst demand was also likely to rise. Japan's palladium demand for auto catalysts was forecast to rise four percent in 2003 to 540,000 ounces.

61. Old Buses In Mumbai To Be Scrapped

The Bombay high court has issued an order requiring old buses to be scrapped by January 1, 2006. The court directed that BEST buses over 15 years of age be phased out and replaced with Euro II or CNG buses. Currently the BEST has more than 700 buses that are over 15 years old. Delivering its verdict on the city's fleet of 3,400 BEST buses, a division bench of Chief Justice C.K. Thakker and Justice D.Y. Chandrachud directed the undertaking to induct at least 100 CNG buses per year for a period of six years starting 2004-05.

The ruling comes as a part of the series of orders in response to public interest litigation (PIL) on ways to curb vehicular

pollution in the city.

The court directed the state, BEST undertaking and the Mahanagar Gas Limited to take coordinated action to ensure that an adequate number of CNG (compressed natural gas) fueling facilities are available.

Enlisting targets for retrofitment, the court directed BEST to retrofit at least 250 buses with Euro-II engines during 2004-05, 300 buses in 2005-06, 350 in 2005-06 and 400 buses in 2007-08.

The court noted that BEST counsels had fairly conceded that the average efficient life of an ordinary BEST bus about 15 years. The judges said there was therefore no need to go into a recommendation of the V.M. Lal expert committee, appointed in 1999 by the court, calling for the phasing out of 20-year-old buses.

The judgment, written for the bench by Justice Chandrachud, ruled that the case pertaining to BEST buses was not on par with other transport vehicles since BEST has a proper maintenance schedule of its fleet. The judges observed that bus manufacturers Ashok Leyland have contended that retrofitment of BEST buses with Euro-II and CNG engines is possible.

62. Kobe City Introduces 'Green Delivery' Requirements

Starting from October 20, Kobe City in Japan introduced a "green delivery" system under which the use of eco-friendly vehicles became mandatory for the delivery of goods to City Hall and other municipal offices. "Green delivery" vehicles approved by the city are as follows:

- Low emission vehicles powered by electricity, methanol, natural

gas, or hybrid engines; and ultra low emission vehicles (U-LEV) classified as three-star vehicles in an overall evaluation system,

- Gasoline-powered automobiles,
- Liquefied petroleum gas (LPG) vehicles ,
- Diesel vehicles certified under the LEV-6 Program, including diesel vehicles designated as low-emission vehicles that emit lower levels of NOx and particulate matter by a council on automobile exhaust emission countermeasures for the six prefectures and cities in the Kyoto-Osaka-Kobe area,
- Diesel vehicles with a diesel particulate filter system.

Shippers and delivery companies are required to notify municipal authorities in advance that their delivery vehicles meet these criteria. Upon notification, the city issues a "green delivery vehicle certificate" and a "green delivery vehicle sticker." Shippers and delivery companies must present these certificates to an inspector when delivering goods and the chief of the Global Environment Division at the city's Environmental Bureau verifies implementation of green delivery as required.

63. China Developing 'Green GDP' Concept to Evaluate Officials' Performance

China is developing a "green GDP" index that will take into account environmental degradation when calculating economic growth, the head of China's State Environmental

Protection Administration (SEPA) told a conference in Washington, D.C., Dec. 9. SEPA administrator Xie Zhenhua said the statistic would be used to "evaluate the performance of the government or of officials within the government" at various levels.

Explaining the need for the measure, he said China "learned a lesson from SARS [severe acute respiratory syndrome] and has realized that the government has paid too much attention to economic development and neglected environmental and social indicators."

He said, however, that the concept was still being worked out.

"At the current stage, we do not have a very definite system of indicators that would be used to calculate 'green GDP,' " he said in response to a question." In China, several agencies are studying the concept, including the State Statistics Bureau, the China Academy of Social Sciences, and SEPA." He added, "I would also like to cooperate with our friends in the United States to see what kind of indicators we could use." He was speaking at a conference organized by the Woodrow Wilson Center's China Environment Forum.

He gave one example of how the "green gross domestic product" might be used in practice. "Some experts have told me it should be very simple," he said. "If the environmental quality has been improved, it shows [local government officials] have balanced development of the economy and the environment. If the environmental quality has gotten worse, then the officials are not qualified."

China has already attempted something similar but this has not been successfully implemented, he said. "We have an 'environmental responsibility system' whereby officials are supposed to be evaluated based on their

environmental performance," he said. "However, until now we don't have one official who has been punished, or who has not been promoted due to their bad environmental performance." This only reinforces the need for a good 'green GDP' measure, he said. "The main reason [for the system's failure] is that the indicators of the 'environmental responsibility system' are so soft they cannot be strictly enforced."

Under China's centralized system, officials are promoted based on how they are seen from Beijing. Personal relationships play a large role, but so do local officials' records in key areas like economic development, population growth, and social stability.

64. South Korea to Tighten Emission Standards For Vehicles in 2006

South Korea's revised automotive emissions standards for gasoline and diesel vehicles will take effect for cars manufactured after January 2006. The impact of the tightened regulation on the domestic automotive industry would be limited because South Korean automakers already have sufficient technology to meet the deadline for a switch to low emission vehicles, the Ministry of Environment said.

Ahn Moon-soo, director of the ministry's Air Quality Policy Division, said that, when fully implemented, South Korea's improved automotive pollution control regime would cut the emissions of tailpipe pollutants by more than half from current levels. "If combined with clean fuel technology, it will help improve the overall air quality standard in South Korea by more than 50 percent 10 years from now."

These tougher emissions limits which had been announced earlier are

incorporated into revised enforcement rules under the Air Quality Preservation Act, which were put into force Dec. 10 by Ministry of Environment Order No. 148.

The tighter emissions limits will apply to vehicles manufactured in Korea or imported after January 2006. According to the revised regulation, the South Korean emissions standards for gasoline-fuelled passenger and cargo vehicles will match California's Ultra Low Emission Vehicle standards. Compared with current regulations, the new standards for carbon monoxide, nitrogen oxides, and hydrocarbons will be lowered by 50 percent, 77 percent, and 39 percent, respectively.

For diesel vehicles, South Korea will copy Euro IV emission standards slated for implementation in Europe in 2005. These standards will cut emissions limits on diesel pollutants including particulate matter by up to 80 percent from the current levels.

The revised rules also will phase in new emissions standards for off-road diesel-powered heavy construction equipment. Enforcement will start in January 2004 with more stringent limits taking effect in January 2005. These requirements will apply to six types of construction equipment: bulldozers, excavators, forklifts, loaders, rollers, and cranes.

The same rules also introduce tougher fuel quality standards, putting limits on the sulfur content of gasoline and diesel. From January 2006, the permissible limits for sulfur content will be lowered to 50 parts per million from the current 130 ppm for gasoline and from 430 ppm to 30 ppm for diesel.

65. China, U.S. Sign Environmental Agreement

The heads of the U.S. Environmental Protection Agency and China's State Environmental Protection Administration signed a memorandum of understanding Dec. 8 that seeks to raise the level of U.S. environmental aid to China. The agreement signals "a new stage in U.S.-China environmental cooperation" with "support at the highest levels in both governments," EPA Administrator Mike Leavitt said in a statement. Leavitt signed the pact together with Xie Zhenhua, who was in Washington, D.C., accompanying China's Premier Wen Jiabao, who met with President George Bush.

The cooperation will focus on prevention and management of air and water pollution and pollution from persistent organic pollutants and other toxic substances, according to the statement.

The United States supported environmental assistance programs in China in the 1980s but stopped completely following the Tiananmen Square protest in 1989. A handful of bilateral environment programs were initiated in the 1990s under then-president Bill Clinton's EPA Administrator Carol Browner. The latest MOU incorporates those programs and adds a few new ones, including two that aim to help China develop a regional air quality management system, and a system for prioritizing emission sources. Such programs are considered to be in America's interest because some of China's emissions, including ground-level ozone, are thought to cross the Pacific Ocean and affect air quality on the U.S. West Coast.

Funding for U.S. environmental projects is limited, however. One estimate is that current commitments for all EPA projects in China are worth only \$1.7 million over several years. The amount is likely to be spread thinly, since the MOU calls for the creation of a "Joint

Committee for Environmental Cooperation" that will coordinate bilateral activities in "air monitoring, emissions inventories, mobile sources control policies, clean energy technology, indoor air quality, watershed management, water quality surveillance and control, and the management of persistent, bioaccumulative and toxic chemicals including pesticides, dioxin, mercury and polychlorinated biphenyls," according to the EPA statement.

The committee will meet every two years, alternating between sites in the United States and China, the statement said.

It added that the MOU "coincides with joint efforts to implement activities defined at the World Summit on Sustainable Development last year, and China's preparations to host the first ever 'Green Olympics' in 2008."

66. Jakarta Hopes Bus Lanes Will Reduce Traffic Problems

Commuting across Indonesia's capital can be an epic battle. Hoping to ease the problem, the city plans to open an ambitious bus lane system next month. Private cars and taxis will be banned from the outer lanes of the north and south bound sections of a 13-kilometer (8-miles) long thoroughfare that cuts through the center of Jakarta. A fleet of specially built buses will use the lanes, which have already been partitioned off by concrete dividers. New bus stops in the central median are being built, along with more than 30 foot bridges for passengers to reach the pavement.

Jakarta has some of the worst traffic in Asia, but it doesn't just cause inconvenience. Earlier this month, the World Bank singled it out as a major cause of Indonesia's sluggish economic growth. Traffic pollution also triggers

respiratory illnesses.

To support the policy, the administration plans to expand an existing ban on cars with less than three passengers from entering downtown during the morning rush hour. The new ban will last till mid evening.

67. Hyundai Motors To Invest \$590 Million In Cleaner Vehicles

South Korea's top automaker Hyundai Motor Co has announced that it would invest 700 billion won (\$588 million) to improve environmental standards on vehicles by 2008 to meet tighter government rules on emissions. As part of its environmental strategy, the government wants 20,000 compressed natural gas (CNG) buses in service by 2007 and 800 CNG clean cars by 2010, it said. Hyundai also plans to gradually replace existing buses used at its workplaces across the country with new clean ones.

"Hyundai will boost investment sharply in developing low-pollution vehicles to support the government's anti-atmospheric contamination campaign," the company said in a statement.

Hyundai said it would initially spend 500 billion won in 2004 to develop a technology that could reduce gas emissions from diesel vehicles. In a later statement, Hyundai said in a public notice to the stock exchange that the investment would be made jointly with DaimlerChrysler AG, which owns 10 percent of Hyundai.

DaimlerChrysler is seeking to deepen its ties with Hyundai by launching a 50/50 joint venture in South Korea to manufacture trucks.

GENERAL

68. EU And USA Lock Horns Over Stratospheric Ozone Protection

Europe and the United States have clashed again over international environmental standards, this time regarding controls on the use of methyl bromide, a pesticide that can deplete the global ozone layer.

The latest meeting of parties to the Montreal protocol on ozone layer protection broke down in Nairobi with the USA warning that it might overrule the global treaty if its demands to continue using the chemical were not met. The issue will be tackled again at a special meeting in March.

Under the protocol rich countries are required to stop employing methyl bromide by 2005, except for specifically approved exemptions. A UN panel backed one-third of US requests for continued use, but America went to the meeting insisting on more. The EU counter-proposed that all states' exemptions should be capped at 30% of countries' baseline methyl bromide consumption.

The lack of a decision of the parties to the Montreal Protocol at the group's fifteenth meeting Nov. 10-14 continues the agriculture industry's uncertainty as to whether it will have to settle for less effective alternatives to methyl bromide if the material is banned in 2005 without exception.

The Montreal Protocol on Substances that Deplete the Ozone Layer was negotiated in 1987 and came into effect in 1989 with the aim of protecting the stratospheric ozone layer by phasing out ozone-depleting substances.

The U.S. administration and about a dozen other countries sought an exemption from the future ban to be

approved at the Nairobi meeting. However, unable to reach a final decision, U.N. officials decided to hold "an extraordinary" meeting in late March 2004 in Montreal to further discuss the request.

According to the U.S. Department of Agriculture, methyl bromide is a preferred fumigant to control diseases, insect infestation, and weeds, especially on farms with very intensive crop rotation, such as three to four crops per year. In the United States, which uses about 60 million pounds of methyl bromide each year, the substance is used on more than 100 crops, as well as on forests and at ornamental nurseries, according to the Agriculture Department.

Under the Montreal Protocol, parties agreed to phase out use of the substance by Jan. 1, 2005, and to develop alternatives. The protocol allows, however, for a so-called "critical use" exemption if a party fulfills certain criteria that are approved by other parties to the treaty.

Under the protocol, signatories can produce or import class I stratospheric ozone-depleting substances that are deemed "essential" for public health and safety or for the functioning of society.

Prior to the negotiations, the European Commission said it supported the Montreal Protocol panel of experts and their recommendation that only a third of the 10,000 tons of methyl bromide requested for exemption by the United States should be allowed.

"The Commission supports the view that the amount of methyl bromide authorized by the parties for critical uses should be sufficient to support critical uses where they have been justified according to the criteria of the Montreal Protocol. This means that only those 'recommended' with conditions by the

experts' panel should be authorized by the parties at the Nairobi meeting not those that were 'noted.' "

Of the 15 EU member states, eight have requested exemptions for the use of 5,000 tons, the Commission said. These include Belgium, France, the Netherlands, Spain, Portugal, Greece, Italy, and the United Kingdom.

69. Global Warming Emissions Seen Increasing Dramatically

Worldwide emissions of carbon dioxide are expected to increase by 3.5 billion tons, or 50 percent, annually by the year 2020, an executive for ExxonMobil Corp said at an energy conference sponsored by accounting and consulting firm Deloitte.. At the same time, global demand for energy will rise by 40 percent as the world population increases and economies grow, said Randy Broiles, global planning manager for Exxon's oil and gas production unit.

He said about 7 billion tons of carbon dioxide, which is a byproduct of burning fossil fuels, go into the earth's atmosphere each year from power plants, cars and other sources.

Broiles said most future growth in output will come from developing countries.

A huge increase in the number of cars will cause part of the pollution growth.

Broiles said there are now 15 cars for every 1,000 people in the world, but ExxonMobil expects that number to rise to 50 cars per 1,000 by 2020.

He said ExxonMobil foresees a 40 percent increase in energy demand even though humans are boosting their energy efficiency by about 1 percent a year. Despite advances in technology most energy will still come from fossil

fuels, and in particular oil and gas, of which there remain very large reserves, he said.

70. SARS Deaths Double With Pollution, Study Finds

SARS, the new flu like disease that swept China and across many parts of the world over the past year, is twice as likely to kill patients in polluted areas, U.S. and Chinese researchers have reported.

Severe acute respiratory syndrome swept through southern China beginning just one year ago, spreading to Beijing and Hong Kong and then to other Southeast Asian nations and the world, including Canada. It infected more than 8,000 people, killing more than 700, according to the World Health Organization.

Caused by a virus new to science, SARS has a death rate that varies between zero and about 17 percent. For instance in Hong Kong, 299 of the 1,755 SARS patients died: 17 percent of patients.

Writing in the journal *Environmental Health: A Global Access Science Source*, the researchers said pollution could help explain the variable death rates — at least in China.

"Long-term and short-term exposure to air pollution has been associated with a variety of adverse health effects including acute respiratory inflammation, asthma, and chronic obstructive pulmonary disease and now SARS," said Dr. Zuo-Feng Zhang, a professor of epidemiology at the University of California Los Angeles, who helped lead the study.

In mainland China, excluding Hong Kong, 5,327 cases of SARS were

diagnosed and 349 patients died. The highest rates were seen in the north of China, the researchers said.

The team at UCLA, Jiangsu Provincial Center for Disease Control and Prevention, and Fudan University School of Public Health in China said Guangdong, with an air pollution index of 75, had a low level of pollution, while Tianjin, with an air pollution index of over 100, rated as highly polluted.

In regions with low air pollution, the death rate was 4.08 percent, whereas in areas with moderate levels, such as Beijing, the death rate was 7.49 percent, and in high air pollution areas it soared to 8.9 percent.

The researchers did not look at other factors such as smoking, socioeconomic status or the treatment that the patients were given.

Other health experts suspect that infection with another virus could affect death rates, and at least one study suggests there could be a genetic susceptibility to serious infection.

Scientists fear that SARS could return later this year. It is caused by a corona virus and related viruses are known to be seasonal, like influenza.

71. Air Pollution Even Worse for Heart Than Lungs

Long-term exposure to fine particles in polluted air is more likely to cause death from cardiovascular disease than from respiratory conditions, researchers have reported. In a study looking at pollution effects in U.S. metropolitan areas, 45.1 percent of deaths were attributable to cardiovascular disease, whereas only 8.2 percent were related to respiratory diseases.

"While we know that air pollution is not the dominant cause of atherosclerotic diseases (hardening of the arteries), these results are consistent with findings that air pollution provokes inflammation, accelerates atherosclerosis, and alters cardiac function," lead author Dr. C. Arden Pope III, from Brigham Young University in Provo, Utah, said in a statement.

During the 16-year study period, 22.5 percent of the subjects died, the researchers note. Further analysis confirmed a direct link between long-term particulate matter exposure and cause-specific mortality. The study found that each 10 micrograms-per-cubic-meter increase was accompanied by an 18 percent increase in risk of death from ischemic heart disease and a 13 percent increase in risk of death from altered heart rhythm, heart failure or cardiac arrest, according to the report. It found that people who live in more polluted cities have an 18 percent higher risk of dying from heart disease than people in less polluted areas.

A team of scientists studied more than 50 cities across the country, including the Washington area, New York, Chicago, Atlanta, Cleveland and Los Angeles, using data on the lifestyles, occupations and deaths of 500,000 individuals gathered by the American Cancer Society from 1982 to 1998. The scientists fed the data into a model that estimated the effects of air pollution while controlling for other factors, including smoking habits, diet and occupational exposures.

"This affects far more people than [who] die of lung cancer or even all other lung diseases," said Dr. Pope. The findings, according to Dr. Pope, "validate" regulatory efforts by the Clinton and Bush administrations to reduce fine particles of soot in the nation's air. But he added that they also raise doubts

about a Bush administration regulatory change to prolong the operation of older, coal-fired power plants, called "New Source Review."

The Pope study, published by *Circulation*, the journal of the American Heart Association, says the particles can cause inflammation of lung tissues. The inflammation, in turn, triggers a range of defense mechanisms including an increase in sticky blood platelets that can clog arteries leading to the heart. Earlier scientific efforts had attributed the same problem to high levels of cholesterol in the blood, but inflammation from soot, Dr. Pope explained, "plays a bigger role than we ever understood before in terms of these fatty plaques."

Previous researchers also thought that soot contributed more to lung disease, rather than heart disease, which is a much bigger cause of premature deaths. The new study tracks the causes of death of more than 319,000 people in all 50 states and relates the findings to air-pollution levels in their communities. It uses a computer program to weigh the relative effects of other disease factors, such as smoking, body mass, diet and occupational exposures to pollutants.

Respiratory disease deaths were not consistently associated with particulate matter exposure, the authors note. Among people who had never smoked, such exposure was positively linked to mortality from pneumonia and influenza. Interestingly, however, chronic obstructive lung disease (COPD) and related deaths seemed to decrease as levels of particulate matter rose.

Smoking was found to be a stronger risk factor than air pollution for deaths from cardiovascular and respiratory diseases, the researchers found. However, as expected, the two factors often work together to produce a larger increase in

risk.

"There is no question that active cigarette smoking is a much, much larger risk factor than air pollution," Pope said. "We don't know precisely how the two relate, but there is some evidence in our study that the mechanisms are similar or complementary."

72. Kyoto Agreement Passes Sixth Anniversary Unratified

As negotiators celebrated the sixth anniversary of the "birth" of the Kyoto Protocol Dec. 11, some were looking beyond the implementation of the treaty to the next phase of the international effort to curb climate change. During a panel discussion at the Dec. 1-12 Ninth Conference of the Parties to the U.N. Framework Convention on Climate Change, representatives from governments, industry, and environmental groups agreed different national interests need to be and can be bridged with new strategies and flexibility.

Devising new strategies and flexibility are themes of a report, *Beyond Kyoto: Advancing the International Effort Against Climate Change*, released to delegates Dec. 8. The report was written by 12 former climate negotiators from developed and developing countries. Used as a starting point for the panel discussion, the report served to "facilitate constructive thinking and dialogue," Eileen Claussen, president of the Pew Center on Global Climate Change, which released the report, said Dec. 11.

Although the Kyoto Protocol, the treaty at the center of negotiations here, has not entered into force, no panel member suggested it should be abandoned in place of a new international agreement.

Instead, they suggested the international community build on its existing frameworks. Panel members included Secretary of State for the United Kingdom Margaret Beckett, Argentina Ambassador Raul Estrada, Australian Minister David Kemp, British Petroleum Adviser Sir Charles Nicholson, Alcoa Director Pat Atkins, and Greenpeace Director Bill Hare.

However, a key element needed in any future framework is the ability to shape a strategy that recognizes individuality among participants, panelists said. For example, Estrada said, negotiators speak now in terms of mitigation, that is, reducing emissions. However, many nations may be primarily concerned with adaptation to climate change, that is, how to deal with the impacts of climate change consequences.

"We are at a critical stage in the international climate effort. Kyoto's entry into force would be a major achievement, but only a start. On the other hand, if Kyoto doesn't get off the ground, the international community must begin thinking right away about the alternatives," said Claussen. "Either way, with or without Kyoto, we face the same challenge: engaging all the world's major emitters--including the United States and the major developing countries--in a long-term effort that fairly and effectively mobilizes the resources and technology needed to protect the global climate," she added, noting that was the intent to putting the report together.

The discussion and the report are geared to any country's effort to move a climate program forward, regardless of whether a nation is a signatory to the framework convention or the protocol, which aims to cut emissions by 5.2 percent from 1990 levels by 2008-2012, participants said.

How to adopt a program, according to the report, involves communicating and educating at a grassroots level. For example, some panelists suggested the Kyoto pact has been struggling to get off the ground for six years because it was signed by ministers before the average citizen may have been aware fully of climate change and its impacts.

Other strategies for the future, according to the report, suggest creating an environment that could allow for sectoral agreements, for example, the top 10 emitting industries in a particular nation could agree to a commitment and hold each other accountable.

Industry representatives on the panel agreed it is the responsibility of governments to create an enabling environment for technology development that can be used within any domestic venue.

73. WHO, UNEP Link Global Warming to Health

The World Health Organization and the United Nations Environment Program estimate problems associated with global warming killed 150,000 people in 2000. The report, *Climate Change and Human Health--Risks and Responses*, released Dec. 11 at the Ninth Conference of the Parties (COP-9) to the U.N. Framework Convention on Climate Change (UNFCCC), said health problems associated with climate change added another reason for countries to push for ratification of the Kyoto Protocol, which is being discussed at the COP-9 talks.

"There is evidence that changes in the world's climate will have profound effects on the health of citizens in countries throughout the world," said Kerstin Leitner, WHO Assistant Director-General for Sustainable Development

and Healthy Environments.

The estimate is generally in line with a report produced jointly by the WHO and the London School of Hygiene and Tropical Medicine released Oct. 1 at the five-day World Climate Change Conference in Moscow. That report, which was a preliminary document based on some of the same basic information the latest document was based on, predicted an average of 160,000 worldwide deaths per year directly related to climate change.

According to the two reports, most climate change-related deaths come from malaria, diarrhea, and malnutrition tied to the effects of changing weather on low-technology agriculture and health care systems.

74. World Bank Urged To Stop Financing Oil, Coal Mining Projects

The final draft of the Extractive Industries Review, *Striking a Better Balance*, was released Nov. 25. Started in July 2001 and headed by former Indonesian Environment Minister Emil Salim, the review included contributions from representatives of governments, extractive industries, and nongovernmental organizations. "The WBG (World Bank Group) should phase out investments in oil production by 2008, the year of the first commitment under the Kyoto Protocol, and devote its limited scarce resources to investments in renewable energy resource development, emissions-reducing projects, clean energy technology, energy efficiency and conservation, and other efforts that delink energy use from greenhouse gas emissions," the review said.

The next step in the Extractive Industries Review is a workshop planned for December 11-13 in Lisbon,

Portugal. The bank will officially receive the review on Dec. 30 and is scheduled to respond to the conclusions and recommendations in March 2004.



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YEAR*