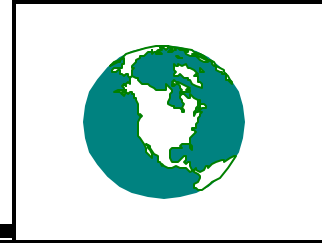


Michael P. Walsh
3105 N. Dinwiddie Street
Arlington, Virginia 22207
USA
Phone: (703) 241 1297 Fax: (703) 241 1418
E-Mail mpwalsh@igc.org
<http://walshcarlines.com>



CAR LINES

Issue 2001-2



April 2001

**NOTE: Back Issues of Car Lines and Other Useful Documents Are Now Available at
<http://walshcarlines.com>**

1.	UK Particulate Report To Be Released Soon	-1-
2.	Poland Scales Back On Environment Demands in EU Talks	-2-
3.	German Greens Want To Extend "Ecology" Tax	-2-
4.	UK Cuts Ultra Low Sulfur Fuel Tax	-3-
5.	The EU Says That US Now A Spectator On Environment Decisions	-4-
6.	Russia Eyes Windfall From Greenhouse Gas Limits	-4-
7.	Motorbikes Face Tougher EU Emissions Limits From 2003	-5-
8.	Moscow Mayor Issues New Directive	-6-
9.	Bush Selection For Air Administrator Announced	-8-
10.	EPA Chief Says US Not Backtracking On Global Warming; Gets Bushwhacked On Return Home	-8-
11.	Supreme Court Upholds National Air Quality Standards (NAAQS)	-12-
12.	Bush Administration Supports Tight Diesel Rules	-13-
13.	Caterpillar Announces Breakthrough Emissions Control Technology For Truck Engines	-14-
14.	Navistar Certifies First Heavy Duty Diesel Particulate Filter	-15-
15.	Reported Voluntary Reductions of Greenhouse Gas Emissions Tripled Between 1994 and 1999	-16-
16.	GM Study Examines Best Combination of Fuels and Powertrains	-17-
17.	EPA Holds Public Workshop Concerning the 1998 Agreement on Global Technical Regulations	-18-
18.	US Supreme Court Upholds EPA Pollution Rule	-19-
19.	EPA To Relax Fuel Requirements	-19-
20.	UN Climate Chief Critical of US Policy "Mistakes"	-20-
21.	US Senators Want To Triple Ethanol Use In 10 Years	-21-
22.	Friends of the Earth Wants EPA's Whitman To Resign	-22-
23.	Report Released On NAFTA Cross Border Transportation And Air Pollution	-22-
24.	Mineta Wants Authority to Set Fuel Economy Standards	-23-
25.	Daimler Chrysler To Challenge On Fuel Economy	-24-
26.	EPA To Decide On Diesel Truck Groups' Request To Delay NOx Standard	-25-
27.	Browner Blasts Bush on Environment	-26-
28.	Whitman Says US To Work On Climate Change, Not Kyoto	-27-
29.	Bush Budget Proposal Cuts Environment Funding By \$2.3 Billion	-27-
30.	New York City To Clean Up Garbage Truck Emissions	-30-
31.	Mexico To Introduce Ecological Tax	-30-
32.	Recent Developments in Japan	-31-
33.	Recent Developments in China	-32-
34.	Delhi Still Wrestling With Diesel Problem as Sufficient Buses Not Yet Converted	-33-
35.	China Assures EU Over Commitment To Kyoto	-34-
36.	Ballard Links Up With Honda Research	-34-
37.	Toyota Plans Summer Roll-out of Fuel Cell Test Car	-35-

EUROPE**1. UK Particulate Report To Be Released Soon**

The DETR/SMMT/CONCAWE Particulate Research Programme has investigated the effect of engine technologies and fuel specifications on regulated particulate matter, particle number, mass and size. A range of light duty vehicles including Diesel, gasoline and bi-fuel plus a range of heavy duty Diesel engines and one heavy duty gas engine were characterized. Engine and vehicle technologies comprised Euro I, Euro II and Euro III status. These engines and vehicles were tested with a range of fuels which they are likely to encounter in normal use. The study also described the application and limitations of current sampling and measurement techniques and makes recommendations regarding instrumentation and sampling methods.

Two Scanning Mobility Particle Sizer (SMPS) instruments were utilized to measure particle number and size within a size range of 7nm to 710nm. Particle mass and size were measured using an impactor (MOUDI) across a size range from <56nm to >10: μm. Regulated particulate matter and regulated emissions were also measured. Vehicles and engines were tested over legislated European test cycles and additional steady state conditions.

Two distinct particle types were emitted. These were defined as accumulation mode particles when larger than 50nm, and as nucleation mode particles when smaller than 50nm.

It was determined within this data set that good repeatability was achieved for both nucleation and accumulation mode particles. However, nucleation mode particles were

found to be sensitive towards preconditioning of engines/vehicles, sampling conditions and to dilution parameters. Limitations of the particle size and number instrumentation emphasized the difficulties in comparing data derived from different studies. The importance of standardized sampling and measurement methodologies is stressed.

This study has shown that both fuel and engine technology influence particle number emissions. Stricter emissions standards have resulted in reductions in particulate mass and this is generally reflected in reductions of accumulation mode particles. However, no fuel or engine technology tested reduced all nucleation and accumulation mode particles as well as particle mass under all operating conditions.

The largest effect of a single technology on particles was observed with Diesel particulate filters (DPFs) on both light and heavy duty applications, where particle mass and number were reduced by several orders of magnitude. The exception was at high exhaust temperature conditions, where significant numbers of nucleation mode particles were emitted post DPF.

For light duty vehicles, highest particle numbers were generally emitted from conventional Diesel with number emissions from the gasoline direct injection an order of magnitude lower. Particle number emissions from conventional MPI gasoline vehicles and the LPG vehicle plus the Diesel vehicle fitted with a particulate filter system were all relatively similar but several magnitudes lower than those from the conventional Diesel. At high temperature conditions though, it was found that total particle number emissions from all light duty technologies were of a similar level. Particle size distributions were, however, different.

The heavy duty CNG engine emitted significantly lower particle mass and number emissions compared to the heavy duty Diesel engines.

For both light and heavy duty Diesel engine types, Swedish Class I fuel showed a small but significant reduction in particle mass and number compared to the other fuels tested.

2. Poland Scales Back On Environment Demands in EU Talks

Poland has scaled back demands for lengthy transition periods in adjusting its environment to European Union standards in a bid to keep its entry talks on track, the country's chief negotiator recently indicated. Poland, the largest ex-communist East European state seeking EU entry, dropped six out of 14 demands for a delay in implementing strict European environmental standards but kept transition period requests in the most expensive areas.

"To stay in the rhythm of negotiations we had to change our position...We want to close environment talks during Sweden's presidency," Jan Kulakowski told a news conference, referring to Stockholm's rotating EU presidency which ends on June 30.

Poland, which seeks EU entry by 2003, dropped a call to be allowed a 10 year delay in meeting EU regulations on municipal waste disposal and hazardous waste. It also gave up a four-year delay request on meeting petrol and diesel fuel quality norms.

"We will meet these standards by EU entry, but in the toughest areas it will take years to adjust," said Environment Minister Antoni Tokarczuk, also present.

"Our firms can not take on more burdens for environmental issues and stay competitive.

These negotiation changes will not involve any extra expense for companies," Tokarczuk said.

Poland argues it will need to spend up to 40 billion euros (\$36.1 billion) to bring environmental protection to EU standards. Now it spends nearly three billion euros, or roughly 1.8 percent of GDP, per year on cleaning up the environment.

Tokarczuk said that up to 15 billion euro must be spent on building sewage and water treatment plants and Poland had asked for lengthy 10 to 13-year transition periods in this field.

With the help of funds from Nordic countries, Poland has reduced pollution levels on its Baltic Sea coast, but many inland cities and towns continue to have no water treatment facilities and pump raw sewage into rivers and reservoirs.

Poland also wants leniency from the EU on emissions from its large smokestack industries, inherited from communist times, which are struggling to compete, face cutbacks and can seldom afford costly environmental investments.

Poland still has to pass a great deal of EU-standard environmental legislation, but has pledged to do so by the end of this year. Some 12, mostly ex-communist states, are in talks on joining the rich 15-nation Western club.

3. German Greens Want To Extend "Ecology" Tax

Leading German Greens have said that they want to keep controversial so-called "ecology" taxes in place after a 2003 cut-off date, despite the tax's unpopularity with their Social Democrat coalition partners.

"We need to maintain the appeal of saving energy. We must discuss again how best to distribute the revenues," the Greens co-leader designate Claudia Roth told Focus magazine.

Chancellor Gerhard Schroeder does not want to continue the unpopular levy on carbon-based fuels and electricity after 2003. "The ecology tax has been agreed until 2003. It makes no sense to discuss it beyond that," Schroeder said this week.

But Schroeder's Greens coalition partners see the eco-tax as a way of keeping fuel prices high to encourage the use of alternative energy and stop consumers wasting energy.

The ecologist party's other co-leader, Fritz Kuhn, agreed the tax could even be tweaked to remove some of the exemptions which Schroeder introduced for big industrial users. "The tax must be continued beyond 2003 because the signals it sends must be encouraged. The tax can also be improved to remove the exceptions that are currently made for industry," Kuhn said on German Radio.

Eco-taxes are meant to cut energy consumption by making fuel more expensive and the multi-billion annual proceeds have been earmarked to prop up Germany's over-stretched pension system.

Introduced on a range of carbon-based fuels in 1999 and due to rise incrementally to 2003, the tax has proven unpopular and polls show around 80 percent of Germans oppose the tax.

Petrol costs have risen to over two marks per liter, from around 1.50 marks per liter last year, because of the levy and some central bankers have warned the tax could cause inflation.

Also energy tax revenues have been hit as oil prices rallied to 10-year highs in the autumn last year, which led to Germans using their cars less in the last part of the year.

Finance Minister Hans Eichel said on Saturday that the government would see later in the year what kind of effect the energy levies have had on this year's tax take.

4. UK Cuts Ultra Low Sulfur Fuel Tax

Confirming plans announced in November, UK Chancellor of the Exchequer Gordon Brown cut duties on ultra low sulphur petrol by two pence a liter and on ultra low sulphur diesel by three pence.

Brown also shaved two pence a liter off standard unleaded petrol until June 14 so that all motorists in Britain would feel the benefit of lower petrol duties.

There had been fears that some motorists, particularly in rural areas, might miss out on the duty cut as not all fuel retailers could promise to provide the cleaner brand of petrol countrywide with effect from 1800 GMT on Wednesday.

But fuel activists involved in last September's nationwide protests and blockades of refineries and terminals dismissed the budget measures that they said still left fuel prices too high.

Oil companies said UK petrol prices will fall to an average of 75 pence a liter, some two pence more than in Norway and the Netherlands - Europe's next highest at 73 pence a liter.

Drivers in France and Germany pay 67 pence and in the United States, where tax is much lower, unleaded on average costs just 25 pence.

UK taxation on unleaded now accounts for just over 77 percent of the pump price down from around 78 percent before the duty cut. The three pence duty reduction on diesel cuts prices to an average 78 pence a liter, still a huge 22 pence dearer than the European Union's next most expensive found in Italy at 56 pence, OPAL said. Diesel in Germany and France costs 53 pence.

Green groups complained about the lower duties.

"He has cut tax fairly significantly on the most damaging oil based fuels and not given sufficient support on the real green fuels that could have allowed people to switch away from petrol and diesel," said a spokesman for Greenpeace.

Brown said environmentally friendly biodiesel fuels would be cut by 20 percent from next April.

5. The EU Says That US Now A Spectator On Environment Decisions

The United States should be reduced to the role of a spectator at future environmental meetings because of its decision to abandon the Kyoto climate change treaty, according to a top European Union official.

Margot Wallström, environmental commissioner at the EU's executive commission, also dismissed Canadian criticism of the 15-nation bloc over the collapse of talks last year on how to cut greenhouse gas emissions as "simplistic" and "unfounded".

Wallström was speaking a day after she held talks in Washington in a failed bid to persuade the new U.S. administration to reverse its decision on Kyoto, which was taken on the

grounds that it would harm the U.S. economy.

"It was a rather disappointing visit, I have to say, and a saddening experience, because the message was very clear," Wallström told reporters, making it quite clear that Washington should pay a price for its decision.

"The United States indicated it will still be participating in international meetings (on climate change) that are scheduled," she said. "But, of course, for us it must be clear from the outset that we will not accept that the United States dictates the process from now on. If they want to be out they will also have to stay out of the decision-making and rule-making process."

Wallström said the 15-nation EU would now lead the process to finalize the terms of the Kyoto treaty, which is due to take effect next year.

"It's important that the United States not be allowed to dictate the process nor be let off the hook too easily. That is the balance we've tried to reach," Wallström said.

"It is not something that can be ignored or that they (the Americans) can look at as a domestic issue. It is about international relations and that is what we have to make very clear to the United States," she said.

6. Russia Eyes Windfall From Greenhouse Gas Limits

Russia, whose carbon dioxide emissions fell by a third over the last decade, could make big money from selling unused pollution quotas if such a market is established, a government official has noted. "Once the market is established, Russia's share will be some 50 percent of demand," said Vsevolod Gavrilov, a Ministry of Trade and Economic

Development expert, at a conference on market mechanisms of a global climate treaty.

"Russia may receive from a few hundred dollars to \$5-6 billion per year, depending on market conditions," he said.

The 1997 Kyoto Protocol calls on industrial nations to cut greenhouse gas emissions by an average 5.2 percent from 1990 levels by 2012 to avoid disastrous global warming. It would also allow countries which meet emission targets to sell their quotas to those countries which do not.

However, much anticipated demand would come from the United States and the creation of a market is uncertain after President George W. Bush last month rejected the Kyoto treaty, saying it harmed the U.S. economy and its workers.

Russia, following the European Union, criticized Washington last week for rejecting the treaty.

Russia is among the world's biggest polluters, but officials say its greenhouse gas emissions fell by some 30 percent in the last 10 years due to a sharp decline in industrial production after the introduction of market reforms.

Deputy Energy Minister Valentin Shelepov told the conference that Russian carbon dioxide (CO₂) emissions could hit 80 percent of 1990 levels by 2010 and 95 percent by 2020.

According to the Trade and Economic Development Ministry's forecasts, there could be a market for as much as three billion tonnes of CO₂ equivalent per year in the period of 2008-2012.

"The United States would account for about

two thirds of demand, whereas Russia would provide for over half of the potential supply. We will be able to form market policy...and take a leading role in the growing market," Gavrillov said.

"We have many potential sellers here in Russia, but the question is who is going to be the buyer," said Brian Fisher, Executive Director of the Australian Bureau of Agricultural and Resource Economics. "It is absolutely crucial for the United States to be involved...otherwise there will be no market for Russian quotas."

7. Motorbikes Face Tougher EU Emissions Limits From 2003

Motorbikes sold in the European Union after 2003 will have to respect cleaner emissions standards under new limits agreed by EU governments. The new law will cut hydrocarbon emissions by 60-70 percent of the current average, the Swedish environment ministry said in a statement. The new rules will also mean significant cuts in carbon monoxide and oxides of nitrogen.

The new law will bring motorbikes under similar rules that the EU has already imposed on cars and lorries under the "auto-oil" program, which aims to calculate the best emissions standards through a combination of motor technology and cleaner fuels.

The agreement still has to be endorsed by the European Parliament, which wants to set a second phase of even stricter standards by 2006.

Environment ministers, meeting in Brussels, said they did want stricter limits by 2006 but would wait until a new testing standard had been developed before setting them.

"From an environmental point of view it would

be wrong to take such a decision at this present time," Swedish Environment Minister Kjell Larsson, who chaired the meeting, said. "We agreed that we should have new, tighter requirements in force in 2006 but as things stand now, we know too little about how these requirements should be implemented," he added.

The ministers called on the EU's executive Commission to propose 2006 levels by the end of next year.

8. Moscow Mayor Issues New Directive

In execution of the Order of the Mayor of Moscow, no. 748-RM, September 24, 1997, "On Confirmation of the Timetable for Equipping Vehicles of the City of Moscow with Catalytic Converters and Other Devices for Reducing the Toxicity of Exhaust Gases," the Transportation and Communication Administration of the Government of Moscow, together with the Department of Natural Resource Use and Environmental Protection of the Government of Moscow and relevant municipal agencies, has organized work to install technical devices to reduce the toxicity of exhaust gases from automotive vehicle engines (catalytic converters) on municipal vehicles that do not meet EURO-1 and EURO-2 environmental standards.

Catalytic converters have been installed on about 18,500 vehicles belonging to municipal enterprises. About 300 million rubles have been spent for this purpose, which in 2000 led to the reduction of total pollutant emissions of 40,000 tons. Work has been completed to install catalytic converters on passenger vehicles belonging to the GUP "GK Mosgortrans" and on municipally owned vehicles belonging to the GUP "Mosavtotrans."

In order to move forward with the reduction of

harmful emissions from vehicle exhaust gases and to complete the installation of catalytic converters on municipal heavy-duty and light-duty vehicles and vehicles belonging to enterprises and organizations of the construction complex:

- < The Department of Natural Resource Use and Environmental Protection of the Government of Moscow, when drafting the Target Program for Improvement of Environmental Quality in the City of Moscow, which is to be financed out of resources exempted from payment of the profit tax into the budget of the city of Moscow for the year 2001, will provide for the installation of catalytic converters on vehicles belonging to municipal enterprises and for replacement of worn-out catalytic converters, to be carried out in accordance with Article 4 of this Order.
- < The Housing and Municipal Services Administration of the Government of Moscow, the Fuels and Energy Administration of the Municipal Services Complex of the Government of Moscow, and the Health Committee of Moscow will:
 - < Within one month, complete an analysis of the extent to which the fleets of these enterprises are equipped with catalytic converters and submit to the Transportation and Communication Administration proposals for incorporation into the plan for installing catalytic converters on municipal vehicles for the year 2001.
 - < In the first half of 2001, conclude contracts with the "Mosekotrans" Green Transport Fund and the Moscow Environment Fund to transfer resources in accordance with the Law of the City of Moscow of November

- 29, 2000, no. 35 "On Rates and Privileges Concerning the Profit Tax" and the Order of the Mayor of Moscow of December 9, 2000 N. 1300-RM "On Implementation of the Law of the City of Moscow of November 29, 2000, "On Rates and Privileges Concerning the Profit Tax" and to manufacture and install catalytic converters on vehicles belonging to government enterprises.
- < The Housing and Municipal Services Administration of the Government of Moscow will not award a city contract to any organization whose vehicles are not equipped with catalytic converters or do not comply with the environmental requirements now in force.
 - < The Administration of Transportation and Communication of the Government of Moscow, together with the Department of Natural Resource Use and Environmental Protection of the Government of Moscow, will in the first quarter of 2001 submit for confirmation by B.V. Nikolskii, First Deputy Premier of the Government of Moscow, a timetable for installing catalytic converters on municipal vehicles in 2001 and for replacing worn-out catalytic converters (with regeneration of the catalyst units).
 - < The Administration of Transportation and Communication of the Government of Moscow, together with the "Moscow Committee for Science and Technology," Inc., will in the first half of 2001 ensure that work is done to develop technologies and create a test facility for recycling and regenerating worn-out catalytic converters (catalyst units).
 - < The leadership of the Municipal Architecture, Construction, Development, and Reconstruction Complex will in 2001 ensure the completion of the work provided for in the Order of the First Deputy Premier of the Government of Moscow of March 2, 2000, no. 135-RZP "On Measures to Reduce the Harmful Environmental Impact from On-Road Vehicles and Special Equipment Belonging to Enterprises and Organizations of the Construction Industry in Moscow."
 - < The "Mosekotrans" Green Transport Fund will extend to the year 2001 the contracts made in 2000 with organizations of the Municipal Architecture, Construction, Development, and Reconstruction Complex with regard to the financing of the work provided for in the Order of the First Deputy Premier of the Government of Moscow of March 2, 2000, no. 135-RZP and included in the 2001 target program.
 - < The Municipal Architecture, Construction, Development, and Reconstruction Complex, the Housing and Municipal Services Administration of the Government of Moscow, the Fuels and Energy Administration of the Municipal Services Complex of the Government of Moscow, the Moscow Health Committee will on a quarterly basis submit to the Transportation and Communication Administration of the Government of Moscow, for summarizing and reporting to B.V. Nikolskii, First Deputy Premier of the Government of Moscow, information about progress made with regard to the installation of catalytic converters on municipally owned vehicles.
 - < The Order of the Mayor of Moscow of September 9, 1997, no. 748-RM "On Confirmation of the Timetable for Installation of Catalytic Converters and Other Technical Devices for Reduction of the Toxicity of Exhaust Gases on Vehicles Belonging to the City of Moscow" is

deemed to have lost its legal force.

- < Oversight over the execution of this Order will be assumed by B.V. Nikolskii, First Deputy Premier of the Government of Moscow, and by L.A. Bochin, Minister of the Government of Moscow and head of the Department of Natural Resource Use and Environmental Protection of the Government of Moscow.

NORTH AMERICA

9. Bush Selection For Air Administrator Announced

President George W. Bush has announced his intention to nominate Jeffrey R. Holmstead to be an Assistant Administrator of the Environmental Protection Agency for Air and Radiation. He is currently with the law firm of Latham & Watkins and served as an Associate Counsel under former President George H.W. Bush. He is a graduate of Brigham Young University and Yale Law School.

He is a protege of C. Boyden Gray, and it is this relationship that is most troubling in terms of the implications for air pollution policy. It appears that he has been closely involved with Citizens for a Sound Economy, the industry funded group that Boyden Gray heads and that coordinated efforts to not only turn back the ozone and fine particulate standards, but sought to have the Clean Air Act declared unconstitutional. Indeed, Holmstead clerked for Justice Steve Ginsburg, the appellate court judge that wrote the D.C. Circuit Court of Appeals decision holding the law unconstitutional.

10. EPA Chief Says US Not Backtracking On Global Warming; Gets Bushwhacked On Return

Home

A. Whitman Position in Europe

The United States is not backtracking from an international commitment it made in 1997 to cut the pollution blamed for global warming, the top U.S. environment official said on meeting European Ministers in Italy. On her first official visit to Europe since being appointed to head the Environmental Protection Agency (EPA), Christine Todd Whitman moved to soothe concerns that President George W. Bush might rip up the historic Kyoto Protocol.

"Let me just start with the clear and unequivocal statement that the global climate review that's being undertaken by this administration does not represent a backing away from Kyoto," she told reporters on the sidelines of a G8 meeting in Italy.

But Whitman heavily qualified the Bush administration's acceptance of the United Nations pact under which industrialized nations agreed to trim their "greenhouse gas" emissions by 2010. Crucially, she refused to confirm whether Bush would be bound by the target of reducing greenhouse gases by seven percent the United States agreed to in Kyoto. "We are not committing to any number," she said. "We are committing to the overall goal of achieving progress.

"I can not speak for the president, I don't assume any substantive change in that (target) necessarily...We have not said we are taking away the figures."

Whitman said the United States was conducting a thorough review of its policies on climate change and was not bound by concessions made by Clinton's envoys at doomed negotiations on the future of the climate pact last November.

The U.N. climate pact agreed in the Japanese city of Kyoto was seen at the time by environmentalists as the first step by governments to make a concerted effort to reduce the pollution blamed for trapping heat in the earth's atmosphere - the so-called greenhouse effect.

Whitman said Bush's more detailed stance on Kyoto should be decided in the coming months. "It is certainly our hope to have completed the study in sufficient time to allow us to participate in the negotiations leading up to Bonn," she said.

Green campaigners and EU diplomats, who had feared Bush might reject the Kyoto process completely, welcomed Whitman's positive stance, and are now pinning all their hopes on getting progress in Bonn.

B. Bush's Repudiation

Then, on March 13, within a few days of Whitman's return to the US, Bush sent a letter to Republican senators saying he would not limit carbon dioxide emissions by electric power plants because it would force U.S. power prices higher. The letter not only undercut Whitman's position in the European discussions, but also marked a reversal of Bush's campaign promise to regulate power plant emissions of carbon dioxide. The president said carbon dioxide was not listed as a "pollutant" under the federal Clean Air Act and thus should not be subject to mandatory limits.

The White House followed up by announcing that the United States had effectively abandoned the 1997 Kyoto treaty to fight global warming.

"The president has been unequivocal. He does not support the Kyoto treaty," White House spokesman Ari Fleischer told

reporters. "It is not in the United States' economic best interest," he said. Asked whether the United States would withdraw from the treaty, Fleischer said it had never come into force, meaning "there's nothing to withdraw from."

State Department spokesman Richard Boucher later said the United States was not considering formally "unsigned" the treaty. "The administration clearly opposes the protocol ... What we are looking for is how to work with other governments to move forward on this," he said.

The pact, signed by former President Bill Clinton in 1998 but never introduced in the Senate for ratification, aims to limit industrial-nation emissions of "greenhouse gases" thought to cause global warming. Bush opposes the pact because it does not also bind developing nations to curb emissions and because he believes the costs outweigh the benefits, Fleischer said. He said Bush had ordered a Cabinet-level review of global warming issues to develop a U.S. response to the issue.

Bush's carbon dioxide decision followed intense lobbying by coal and oil companies and congressional conservatives who opposed the proposal.

C. World Temperatures Rising

Scientists say if nothing is done to reduce the gases from fossil fuel use, industry, agriculture and forest clearance, world temperatures could increase by up to six degrees Celsius in the next 100 years, with disastrous environmental results.

But with economies booming in most western nations during the 1990s, emissions have risen, and likelihood of countries meeting their targets without very strong measures - or very

creative accounting - now looks slim, analysts say.

U.N. scientists estimate emissions need to fall by at least 60 percent of current levels to stabilize the climate.

The United States, along with allies that include G8 colleagues Canada, Japan and Russia, has argued countries need maximum recourse to "flexibility mechanisms" such as buying emissions permits from less polluting nations, and using their forests as "sinks" to soak up pollution, to meet their targets. The European Union, represented in the G8 by Britain, France, Germany and Italy, insists countries must make real emissions cuts on their own territory to show they are serious.

The sharp difference of opinion on climate that divides the G8 down the middle sank U.N. talks in The Hague in November which were aimed at setting the rules for applying the Kyoto pact - a prerequisite for getting countries to ratify the deal.

D. Global Reaction

The European Union, which said last week the global warming was an integral part U.S.-EU relations, expressed concern over the Bush administration stance. Democrats and environmental groups denounced it.

"The new president came to town saying he would change the tone and change the climate in Washington; I guess we didn't realize it was the real climate he wanted to change," U.S. House Democratic leader Richard Gephardt of Missouri said at a news conference.

The European Union has also asked Bush to press ahead with the deal, saying a joint effort to fight global warming was "an integral part of relations" with the European Union.

EU Environment Commissioner Margot Wallström said in a statement, "It is very worrying if it is true that the U.S. intends to pull out of the Kyoto protocol." An EU spokeswoman said the United States had not yet replied to its request for high-level meetings to settle differences over the treaty. Fleischer said only one of the 55 nations whose approval is required to put the treaty in effect - Romania - had so far acted to comply with the pact.

"It is a signal worldwide that others agree with the president's position on the treaty," he said.

The environmental group Friends of the Earth criticized the U.S. position as "environmental isolationism."

"He (Bush) is systematically breaking his promises to the American public to protect the environment and keeping his promises to the wealthy polluters who put him in office," said organization spokesman Mark Helm.

Key US allies in Asia lamented President George W. Bush's decision to abandon the Kyoto climate change treaty, while China slammed the move as irresponsible.

Led by Japan, Asian nations vowed to keep up diplomatic pressure on the US administration to reverse its decision, which has caused fury among environmental activists.

"It is extremely important that the United States -- the world's biggest state to emit carbon dioxide -- signs the treaty," Japan's Chief Cabinet Secretary Yasuo Fukuda said.

"We have to continue to call on the United States, and build our diplomatic efforts on the United States to ensure that the Kyoto Protocol will take effect."

China dismissed the US argument that the

Kyoto protocol, in which 38 rich industrialized countries agreed to cut "greenhouse gases", exempted developing nations from cutting their emissions, saying different nations had different responsibilities.

"The UN climate convention clearly emphasizes that developed countries are and remain the main source of greenhouse gas emissions worldwide," said foreign ministry spokesman Sun Yuxi.

"The primary task of developing countries is to develop their economies and to reduce poverty."

He said the Bush administration had used the actions of developing countries as a "pretext" for evading responsibility.

"This goes against the principal of the convention. This is an irresponsible attitude towards the global environment."

Australian Environment Minister Robert Hill said he would travel to the US in the next fortnight for talks with US officials in a bid to salvage the agreement.

"We support the Kyoto Protocol," Hill told ABC Television. "It won't be implemented without the United States, so if the United States withdrew from it that would be the end of that process."

"I've got a series of meetings in about a fortnight in the United States, on the issue of climate change, with the US but also with other countries of the developed world ... and also the developing world."

In New Zealand the government expressed "grave concern" about the decision.

Energy Minister Pete Hodgson said Foreign Affairs Minister Phil Goff would set out the

Government's concerns "very clearly" in Washington next week when he is due to meet senior members of the US administration.

Goff would urge the US to stay fully involved with international attempts to develop an effective response to climate change, Hodgson said in a statement. "Climate change cannot be dealt with by ignoring it. The world needs the United States to engage with the international effort to find an effective response," he said. "This is an issue of global importance, which is why there has been no support to date for the latest statements from the US, but strong expressions of concern."

E. Whitman Denies Undercut

EPA Administrator Whitman rejected charges that President George W. Bush had undermined her by spurning her advice on global climate change. She said the international community understood the new U.S. administration had an "obligation" to survey matters before coming up with its climate change stance.

"He is very committed to that discussion," Whitman said of Bush on the ABC television program "Good Morning America." She spoke after the Washington Post reported that a week before Bush broke his pledge to cut carbon dioxide emissions, she had pressed him to demonstrate his commitment. The Post quoted a March 6 memo in which she reportedly warned Bush to demonstrate his commitment to cutting greenhouse gases or risk undermining U.S. standing around the world.

The memo, written after Whitman met with European environmental ministers in Italy, told the president that global warming was an important "credibility issue" for the United States, and that "we need to appear engaged

... and build some bona fides first."

"I would strongly recommend that you continue to recognize that global warming is a real and serious issue," Whitman said in the memo, according to the Post account.

Sen. John Kerry, a Massachusetts Democrat who is a long-time advocate of addressing global warming, was quoted by the Post as saying the administration had undermined Whitman in a way that might leave her "gun shy" and reluctant to press too hard for U.S. participation in an international global warming pact.

"I don't believe that," she said when asked about Kerry's comment and any undermining of U.S. credibility in the ABC interview.

Whitman first learned of the president's reversal on carbon dioxide emissions at a midmorning meeting with Bush at the White House, hours before he revealed his decision in a letter to four conservative senators.

11. Supreme Court Upholds National Air Quality Standards (NAAQS)

In one of the most important environmental and business decisions in decades, a unanimous US Supreme Court upheld how the federal government sets air pollution standards, rejecting industry arguments that costs, instead of just health benefits, must be considered. The nation's high court also said in the landmark ruling that the US Environmental Protection Agency (EPA) did not usurp lawmaking power from Congress when it set the strict standards for ozone and soot in 1997.

But in a third part of the ruling, the court said the EPA's implementation policy for the ozone standard was unlawful, and that the agency must develop a reasonable interpretation.

The EPA says the standards, which have yet to take effect, will save lives and billions of dollars in health costs by reducing air pollution. The EPA estimated the rules will protect 125 million Americans, including 35 million children, from adverse health effects caused by air pollution.

Attorneys representing industry groups opposed to the standards have said the rules would cost businesses nearly \$50 billion a year, a financial factor never considered by the EPA.

Environmentalists hailed the decision.

"The Supreme Court's historic decision confirms what was clear three and a half years ago: that EPA's new standards to limit the pollution levels of smog and soot were based on sound science, sound policy and a sound reading of the law," said Vickie Patton of the group Environmental Defense.

The air standards limit the allowable level of ozone, an essential part of smog, to 0.08 parts per million, instead of the 0.12 parts per million under the old rules.

States for the first time must regulate microscopic particulates, or soot, from power plants, cars and other sources down to 2.5 microns.

The case gave the Supreme Court its first chance to review how EPA sets national air quality standards. Environmentalists called it the most important case since Congress adopted the clean air law 30 years ago.

Justice Antonin Scalia, writing the main opinion for the court, rejected the argument by business groups that the clean air law required the government to go beyond the public health benefits of reducing air pollution and take into account the economic costs as

well. "The EPA may not consider implementation costs in setting" the standards, Scalia wrote in the 26-page opinion. He said the standards must be set at a level required to protect the public health.

The other key issue was whether the law, as interpreted by the EPA, handed such a broad authority of a legislative nature to a regulatory agency that it amounted to an unconstitutional delegation by Congress of its law-making power. Rejecting the argument of business groups, Scalia said the clean air law does not delegate legislative power to the EPA in violation of the Constitution.

All nine Supreme Court members agreed with the basic judgment, although some of the justices had different legal reasons.

12. Bush Administration Supports Tight Diesel Rules

The U.S. Environmental Protection Agency has announced its support for strict new rules to cut diesel fuel pollution from trucks and buses by 95 percent starting in 2007, marking the first major clean-air decision by the Bush administration and a big win for environmentalists. The new regulations were originally adopted in the waning days of the Clinton White House after a more than year long process of comment and analysis but were put on hold when President George W. Bush took office on Jan. 20 as part of a general stay on late-term orders approved by the previous administration.

"The Bush administration determined that this action not be delayed in order to protect public health and the environment," said EPA Administrator Christine Todd Whitman in a statement.

"I look forward to working with state and local governments to meet their air quality goals as

well as with citizens and businesses to ensure that diesel trucks and buses remain a viable and important part of the nation's economy."

Whitman said the rule allows significant lead time for manufacturers and refineries to meet the reductions.

Engine manufacturers will have flexibility to meet the new standards through a phase-in approach between 2007 and 2010. The fuel provision will go into effect in June 2006 and be phased-in through 2009.

EPA said special provisions and flexible approaches would stretch the phase-in time for smaller refiners.

Once implemented fully, EPA said 2.6 million tons of smog-causing nitrogen oxide emissions will be reduced each year. Soot or particulate matter will be reduced by 110,000 tons a year.

The EPA rule cuts emissions from both diesel engines and the levels of harmful sulfur in the fuel, similar to measures aimed at cutting passenger vehicle tailpipe emissions by twinning reductions in engine and gasoline pollution.

Environmentalists, public health advocates and a number of industry groups had pushed for the new diesel rule, saying the sharp reductions in diesel pollution would save lives and boost production of cleaner-burning 18-wheelers and school buses. Proponents say the changes will prevent 8,300 premature deaths each year - 5,500 cases of chronic bronchitis and 360,000 asthma attacks.

The oil refining industry had balked at the timing and the extent of the new requirements for cutting sulfur in diesel to 15 parts per million, 97 percent below current levels. The

industry wanted more time to make the changes, citing the costs associated with altering production methods, and preferred a cut to 50 parts per million.

In a statement, the National Petrochemical and Refiners Association said the rule was "unworkable" in its current form and result in significant shortages of diesel fuel. The group said it would continue to pursue legal action, which it filed in the U.S. Court of Appeals in Washington, and expected others to join in the litigation.

The American Petroleum Institute said it remained concerned that federal regulations announced to sharply cut diesel fuel pollution by 95 percent from mid-2006 may threaten supplies as refineries scramble to meet the new requirements.

API President Red Cavaney, in a letter to EPA Administrator Christine Todd Whitman, said the oil industry welcomed one provision of the rule allowing for an independent review of the diesel supply issue. "Specifically, our concern is with the timetable for implementation, particularly with the rule's impact on the availability of an adequate supply of diesel fuel," Cavaney said in his letter.

"We were pleased to hear of your decision to ask an independent advisory board to look at the issues of diesel supplies and related technology and report to you annually," he wrote.

The American Trucking Associations (ATA) said while it was willing to support reasonable measures to improve air quality, it was disappointed in the EPA for failing to address its concerns that the diesel fuel supply will be adequate and that proper distribution systems will be in place.

"ATA is also concerned about the growing

patchwork quilt of boutique fuels across the country that impedes the uninterrupted supply and availability of diesel fuel," said Walter McCormick, ATA president and chief executive officer.

13. Caterpillar Announces Breakthrough Emissions Control Technology For Truck Engines

Caterpillar has announced what it calls a significant breakthrough in on-highway truck engine technology designed to meet the 2004 federal emissions requirements while lowering operating costs for truckers. The new emissions control technology, known as Advanced Combustion Emissions Reduction Technology (ACERT), combines advances in fuel systems and engine combustion.

The announcement came as a surprise to many among the diesel industry since Caterpillar said its engines will meet the 2004/2002 emission standards without the use of cooled exhaust gas recirculation (EGR) technology. Until now, the cooled EGR has been commonly perceived as the technology of choice for meeting the 2004 limits (Caterpillar and other Consent Decree signees are obliged to meet the 2004 standards by October 2002).

"This technology is a clear winner for the environment and our customers because it reduces emissions, while maintaining engine performance and reliability," said Douglas R. Oberhelman, a Caterpillar vice president and head of the company's Engine Products Division. "We are uniquely positioned to lead in global emissions technology, as we integrate our proprietary fuel system with our own electronics to produce clean power in truck engines".

"After a careful evaluation of several potential technologies, we found ACERT to be the

most effective and cost efficient solution for our truck engine customers," said John Campbell, truck engine product director in Caterpillar's Performance Engine Products Division. "The transition to ACERT engines will be almost transparent to customers, and we will maintain the high quality levels customers have come to expect from Caterpillar."

This technology integrates very well with Caterpillar's advances in electronics and fuel systems -- requiring minimal component changes and lowering operational costs for truck engine owners. It will also simplify installation for truck manufacturers and reduce engine noise by up to 50 percent.

Caterpillar also offers dual fuel diesel-natural gas engines with the ACERT technology that meet the California optional low NOx standard of 2.5 g/bhp-hr.

Concurrently with the Caterpillar announcement, other manufacturers re-affirmed their commitment to the cooled EGR technology for meeting the 2004/2002 emission standards.

- < Cummins Inc. said it demonstrated the technology on the Cummins B series engine. EGR is also being applied to its other medium-duty and heavy-duty products, which are currently in field test. Cummins achieved a 2% improvement in fuel economy compared to its current product, reduced NOx by 50%, and reduced the time of unaided cold starts over 80%. Due to the use of variable geometry turbocharging, the throttle response of the engine improved from today's product as well.
- < Cummins believes that cooled EGR, together with improvements in air handling, high pressure fuel injection,

combustion technology and controls engineering, is the best approach for meeting the US2004 emissions requirements. John Wall, Cummins Vice President and Chief Technical Officer said "We extensively researched all technical solutions, and concluded that the only feasible technology for meeting the 2.5 gram NOx+NMHC levels is with exhaust gas recirculation. No other option provides the benefits of fuel economy, cost, responsiveness and overall performance, and in our view, no other currently available technology can achieve a 2.5 gram NOx+NMHC emissions level in this timeframe."

- < Mack Trucks, Inc. announced that its 12-liter, 460 hp, Mack E-TECH engine will meet the 2004/2002 emissions requirements through the use of cooled EGR. The engine is now moving forward into the industrial validation phase of development. Mack said it sees the cooled EGR as the most viable technology for meeting the emissions standards for NOx and particulates in the 2002 timeframe. In addition to EGR, Mack engineers will utilize new technologies that will be progressively introduced in the E-TECH engine between now and 2002. These technologies will include "a significant evolution of the engine's unit pump fuel system, in which Mack will deploy flexible injection capabilities as early as the second half of 2001".

14. Navistar Certifies First Heavy Duty Diesel Particulate Filter

International Truck and Engine Corporation (Navistar) received emission certification for an engine equipped with a diesel particulate filter (DPF). The package, including a Navistar 530 cu.in., 275 hp engine fitted with a catalyzed particulate filter from Engelhard,

was certified by the US EPA and the California ARB.

This is the first emission certification worldwide of a heavy-duty diesel engine equipped with a DPF. It is an important stepping stone towards meeting the US2007 emission standards, when all HD engines are expected to require particulate filters.

The engine is certified at a PM level of 0.01 g/bhp-hr (the US2007 standard). NOx emissions were measured at 3.0 g/bhp-hr. For comparison, current HD engines have to meet a 4.0 g/bhp-hr NOx standard and a PM standard of either 0.1 g/bhp-hr (trucks) or 0.05 g/bhp-hr (urban buses).

The engine is classified as medium-heavy-duty and, as such, has to meet a 185,000 miles emission durability requirement. The certification process involved determination of the emission deterioration factors for the particulate filter, which was performed through a 1000 hour accelerated dynamometer aging.

Navistar has conducted extensive field testing of DPF-fitted engines, which demonstrated proper regeneration and no increased backpressure levels. The company says it is very confident with the performance and durability of the engine/DPF package. As a maintenance procedure, Navistar recommends that the filter be cleaned from accumulated lube oil ash once per year.

The certified package is part of the "Green Diesel" technology marketed by Navistar for school buses and other heavy duty applications, primarily in California. The DPF-fitted engine is to be operated on a 15 ppm ultra low sulfur diesel fuel.

15. Reported Voluntary Reductions of Greenhouse Gas Emissions

Tripled Between 1994 and 1999

A total of 201 U.S. companies and other organizations reported they had undertaken 1,715 projects that achieved greenhouse gas emission reductions in 1999. The reported reduction of 226 million metric tons of carbon dioxide equivalent was three times the amount reported in 1994, the first year of the Voluntary Reporting of Greenhouse Gases Program. According to information released by the Energy Information Administration (EIA), the reported reduction was equal to about 3.4 percent of total U.S. greenhouse gas emissions in 1999.

EIA's Voluntary Reporting Program affords an opportunity for any organization or individual to establish a public record of its achievements in reducing or offsetting greenhouse gas emissions in a national, publicly- available database.

The electric power sector, with 100 companies reporting, continues to provide the largest number of participants in the program. Reporters included nearly all of the largest electricity generating utilities. The companies reported projects such as improved plant efficiencies, cogeneration, use of non-fossil fuels such as nuclear and renewable fuels, and demand-side management programs that reduce power use by their customers. Other projects cover many different approaches to reducing or offsetting emissions, including activities such as methane recovery projects at landfills, urban forestry, and worldwide tree planting projects.

The number of participants from outside the electric power sector (101 reporters) was eight times the number reporting in the first year of the program. These companies now comprise half of the reporters to the program and include firms engaged in automobile manufacturing, petroleum production and

refining, coal mining, and the chemical industry.

Electricity generation projects accounted for over half of all reported reductions. Waste treatment and disposal projects, mostly through the reduction of methane emissions at landfills, accounted for almost 20 percent of the reported reductions. Smaller reductions were reported for energy end-use projects designed to increase energy efficiency in end-use applications (such as lighting, appliances, and heating and air conditioning), methane reductions from petroleum, natural gas and coal systems, carbon sequestration projects, and cogeneration facilities.

The Voluntary Reporting of Greenhouse Gases Program, required by Section 1605(b) of the Energy Policy Act of 1992, is part of U.S. Government efforts to develop innovative, low-cost, and nonregulatory approaches to limit emissions of greenhouse gases. Greenhouse gases, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6), absorb infrared energy and prevent it from leaving the atmosphere. Increasing levels of these gases in the atmosphere may contribute to an increase in average global temperatures, resulting in adverse climate changes. Of the 226 million metric tons of carbon dioxide equivalent (MMTCO₂) reported reductions, the vast majority was in the form of carbon dioxide (172.2 MMTCO₂), with lesser amounts of methane (48.8 MMTCO₂), HFCs, PFCs and SF6 (4.3 MMTCO₂), and nitrous oxide (0.3 MMTCO₂).

16. GM Study Examines Best Combination of Fuels and Powertrains

A new study released by GM gives high marks to gasoline-derived fuels and fuel cell vehicles

as the cleanest and most efficient combination of fuel and propulsion systems for the near term. Additionally, the study found that hydrogen-powered fuel cell vehicles are the best long-term solution, while diesel hybrids also scored well in the report.

General Motors Corp. conducted the study with Argonne National Laboratory and energy partners, BP, ExxonMobil and Shell. What emerged is the most definitive well-to-wheels analysis to date, in GM's view.

The study examined gasoline and diesel internal combustion engines, fuel cells, and hybrids, all in a common platform -- a Chevrolet Silverado pickup -- and studied a variety of fuel types from a North American perspective. The Silverado was chosen according to GM because it is a popular vehicle that, with modest improvements in fuel economy, can deliver large overall gains in fuel saved and total greenhouse gas emissions reduced.

Researchers then set out to determine what is the cleanest -- in terms of greenhouse gas emissions -- and most efficient combination of fuel type and propulsion system.

The study findings support GM's view that petroleum-based gasoline and diesel are excellent fuels in the near-term, and a gasoline-like fuel is the best bridging strategy to a hydrogen economy for fuel cell vehicles. GM plans for this gasoline-derived fuel to work in both its fuel cell and conventional vehicles.

Hydrogen, made renewably, is the end goal, as it is clearly the best long-term, clean fuel. But these results reinforce GM's philosophy that there is no need to create a costly and temporary infrastructure for fuels such as methanol or compressed natural gas (CNG) to reach a hydrogen economy.

Key findings in the study are:

- < Fuel cell vehicles powered by clean gasoline offer higher efficiency and lower emissions when compared with the other powertrains examined in the study.
- < A diesel hybrid electric vehicle (HEV) -- using a clean, reformulated diesel fuel -- scored very high among the non-fuel cell vehicle fuel/vehicle combinations, in terms of efficiency and carbon dioxide emissions. Overall, diesel powertrains had high well-to-wheels marks, scoring even higher than gasoline hybrids.
- < Fuel cell vehicles powered by hydrogen offer the greatest long-term potential.
- < Methanol used in fuel cells and compressed natural gas internal combustion engines offered no advantages over clean gasoline in well-to-wheels efficiency.
- < As expected, renewable fuels such as ethanol from cellulose gave by far the lowest greenhouse emissions.

Researchers considered 75 fuel pathways and 15 vehicle pathways -- the path from well-to-wheels -- and chose 27 for complete analysis. Fuel types included: low sulfur, clean gasoline-type fuels; low sulfur diesel; low sulfur naphtha; and methanol, liquid hydrogen and gaseous hydrogen from non North American natural gas.

Michael Wang of Argonne National Laboratory, a recognized leader in well-to-wheels modeling, conducted the "well-to-tank" portion of the study with significant input from BP, ExxonMobil and Shell. For this study, Argonne used a model known as GREET (Greenhouse gases, Regulated Emissions, and Energy use in Transportation), considered the industry

standard in U.S. emissions and energy use modeling.

The "tank-to-wheels" portion of the study was performed at General Motors, using a proprietary computer model that was validated for conventional, hybrid and fuel cell powertrains. The vehicles were computer-tested, using the EPA Urban and Highway Driving Cycle. A total of 15 fuel/vehicle combinations were analyzed. Since some of the fuels can reach the vehicle by multiple pathways, 27 pathways were analyzed on a well-to-wheels basis.

GM said the next areas for investigation include expanding the study to include other emissions such as oxides of nitrogen, hydrocarbons and particulates, as well as examining more real world issues like cost and packaging. Expanding the study to focus on Europe is another area for future study.

17. EPA Holds Public Workshop Concerning the 1998 Agreement on Global Technical Regulations

EPA held a public workshop on March 19, 2001 at the EPA Headquarters in Washington, DC as part of a process to educate interested stakeholders concerning its participation in the United Nations/Economic Commission for Europe (UN ECE), World Forum for Harmonization of Vehicle Regulations (WP.29). EPA is also soliciting public comments on the development of regulations and the involvement of the public in EPA's participation in the development of regulations under the 1998 Agreement concerning the Establishment of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts (Global Agreement).

EPA has proposed submitting the LDV Tier 2 program, the 2007 on-road heavy-duty engine standards, the LDV OBD program, and the

CAP 2000 LDV certification/in-use verification program to add to the Compendium of Regulations. The Compendium of Regulations is intended to provide examples of mobile source regulatory programs for individual countries looking to establish regulatory programs for specific categories of mobile source regulations. EPA also identified several areas that it considers priorities for consideration under the Global Agreement, including: 1) a worldwide on-road HDE test cycle, 2) worldwide motorcycle test procedure, 3) global OBD/in-use emission performance evaluation procedures, and 4) test procedures to measure the emission performance of fuel cell vehicles.

18. US Supreme Court Upholds EPA Pollution Rule

In a major environmental ruling, the Supreme Court upheld how the federal government sets air pollution standards, rejecting industry arguments that public health benefits should be weighed against compliance costs.

In a defeat for utilities and industry groups, the U.S. Supreme Court decided to let stand a federal rule requiring a number of states to reduce interstate drifting of air pollution, mainly from power plant emissions.

The high court rejected without any comment or dissent a challenge to the U.S. Environmental Protection Agency's (EPA) rule that had been brought by about 50 utilities, various industry groups and by eight states.

They claimed the EPA's rule, aimed at emissions largely from coal-burning power plants that drift into states mainly in the Northeast, exceeded the agency's authority under the clean air law to address interstate air pollution. The greatest reductions in emissions take place in Midwestern states.

The EPA in 1998 labeled 22 states and the District of Columbia as sources of interstate pollution and ordered them to sharply cut back on the amount of nitrogen oxide, a smog-causing chemical, starting in 2003 for some plants.

A U.S. appeals court last year upheld the rule. It said the EPA properly considered the cost of air pollution controls when determining which states should reduce their emissions and the amount by which each state must reduce its emissions.

The court told the EPA to reconsider the plan for three states - Wisconsin, Missouri and Georgia.

But it upheld the rule for the District of Columbia and the other states - Alabama, Connecticut, Delaware, Illinois, Indiana, Kentucky, Massachusetts, Maryland, Michigan, North Carolina, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia and West Virginia.

In appealing to the Supreme Court, the utilities, the industry groups and the states argued that the EPA may not consider the cost effectiveness of available pollution controls in identifying the emissions.

They also questioned the part of the appeals court ruling that held the EPA's authority was sufficiently defined under the clean air law.

The Justice Department, on behalf of the EPA, said the appeals should be rejected. Environmental groups, nine Eastern states and the Canadian province of Ontario also urged the Supreme Court to deny the appeals.

19. EPA To Relax Fuel Requirements

The Bush administration has announced it would relax federal pollution rules for blending ethanol into gasoline for the Chicago and

Milwaukee markets to avoid a spike in prices during the summer driving season. Christine Todd Whitman, administrator of the Environmental Protection Agency, made the announcement that refiners can begin making a cleaner-burning gasoline with the relaxed standards.

Gasoline prices in Milwaukee and Chicago soared as high as \$2.75 a gallon last summer because of supply problems and the high costs of blending the fuel. The high prices sparked consumer outrage, congressional hearings and a federal antitrust investigation.

The EPA's action means gasoline sold in the two cities can temporarily contain larger amounts of pollutants known as volatile organic compounds. The EPA will not expand the relaxed standards for other U.S. cities because Chicago and Milwaukee are the only cities that depend heavily on ethanol-blended gasoline, she said.

The Bush administration has rolled back or delayed several key environmental actions taken during the final days of the Clinton presidency.

A. Mining

The Interior Department's Bureau of Land Management said it suspended a regulation to toughen environmental standards for gold, silver and uranium mining on public lands. The rule, which went into effect on the final day of the Clinton presidency, forced mining companies in the West to post financial bonds guaranteeing that they would clean up water and environmental damage. It was the first broad revision of an 1872 mining law to add environmental protections.

The rule was enacted after four years of public comment, and followed many of the recommendations made in a 1999 National

Academy of Sciences study.

B. Water

On March 20, the Environmental Protection Agency said it would withdraw the pending arsenic standard for drinking water that was prepared during the final days of the Clinton administration. The rule would have slashed the permissible level of arsenic in water from 50 parts per billion to 10 parts per billion. The current federal rule limiting the amount of arsenic in drinking water was based on 1942 data.

The EPA said it would seek "independent reviews" of the science behind the standard and the cost estimates for communities to implement the rule.

C. Forests

The Bush administration has delayed a Clinton presidency rule to ban new roads in nearly 60 million acres of U.S. forest land, saying more time was needed to review the controversial plan. The roadless plan, finalized during the last two weeks of the Clinton administration, is opposed by logging and oil companies. It was scheduled to go into effect on March 13 but the Bush administration delayed the effective date until May 12 to allow more time for review.

The state of Idaho and Boise Cascade Corp filed a federal lawsuit in Boise to try to block the ban on roads.

20. UN Climate Chief Critical of US Policy "Mistakes"

The head of the U.N. forum for global warming said the world would have to give the new U.S. administration time to form its climate policy if it wanted to save a global treaty to battle climate change. "Give the United States

some time to get their act together and forgive them their early mistakes," said Jan Pronk, the Dutch environment minister and head of the U.N. panel for climate change.

His comments followed U.S. President George W. Bush's rejection last week of the 1997 Kyoto treaty on cutting greenhouse gases. Bush's decision prompted a storm of protest across the globe.

"To keep the global family together is vital for future generations," Pronk told a news conference at the end of a three-day meeting of European Union environment ministers in northern Sweden.

The United States, which signed the Kyoto accord but whose Senate has not yet ratified it, is the world's largest emitter of carbon dioxide, the greenhouse gas produced by burning fossil fuels that many scientists say is the main culprit behind potentially disastrous global warming.

Sweden, current holder of the rotating EU presidency, made clear this weekend that the EU would not retaliate against Washington with trade sanctions. Instead, the bloc would actively participate in the Kyoto process and support a resumption of a global environment action plan in Bonn in July.

The Kyoto protocol calls on industrialized countries to cut carbon dioxide emissions by on average 5.2 percent below 1990 levels by 2012.

Climate Negotiations

Pronk said it was important to try to keep negotiations active.

The world would have to cut emissions by at least 50 percent from 1990s levels by 2050-60 to curb the trend of rising

temperatures, he said.

Should Washington stick with its new policy, other countries would still proceed and ratify the protocol, Pronk said. He admitted, however, that it would be hard to do without U.S. compliance.

"We need 55 countries standing for at least 55 percent of emissions in 1990 to ratify Kyoto," he said.

The United States has six percent of the world's population but produces more than a quarter of the globe's greenhouse gases, environmentalists say.

A troika made up of the EU Commissioner for the environment, Margot Wallström, Swedish Environment Minister Kjell Larsson and representatives of Belgium, which takes over at the EU helm in July, have traveled to Washington. Their brief was to find out more about what the United States intended with its rejection of the Kyoto agreement. Then between April 6 and 11, the EU troika will visit China, Russia, Iran and Japan to assess how these countries wanted to proceed in the global climate change talks, and whether it would be possible to ratify the treaty without the United States.

21. US Senators Want To Triple Ethanol Use In 10 Years

U.S. consumption of the fuel additive, ethanol, could triple over the next decade to help reduce foreign oil imports under legislation introduced in the U.S. Senate. To make room for more ethanol, the bill would also allow states to address serious groundwater contamination problems by phasing out alternative additive MTBE, methyl tertiary butyl ether, over the next four years. MTBE is blended into anti-smog gasoline.

The legislation, introduced Monday, would require cleaner-burning renewable fuels to account for a larger portion of all motor fuel sold in the U.S. market over the next 10 years.

The bill is sponsored by Sens. Tom Daschle, a South Dakota Democrat, and Indiana Republican Richard Lugar, whose farm constituents would benefit from more ethanol use. Ethanol is made from corn.

Tripling ethanol demand would increase U.S. farm income by \$1.3 billion a year and save the U.S. over \$4 billion a year in imported oil, according to the Agriculture Department.

22. Friends of the Earth Wants EPA's Whitman To Resign

Conservation advocacy group Friends of the Earth has called on U.S. Environmental Protection Administration chief Christine Todd Whitman to resign, saying her credibility at home and abroad is lost. In a letter to Whitman, the group said President George W. Bush's decision to unilaterally remove the United States from the Kyoto climate change treaty negotiations, and White House policy reversals on the regulation of carbon dioxide emissions and arsenic in drinking water have compromised Whitman.

"First, the Bush administration destroyed her credibility on climate change. Then, in an astounding blow to public health, Administrator Whitman sent standards for arsenic in drinking water back to 1942," said Friends of the Earth President Brent Blackwelder.

As a matter of conscience, the group urged the former New Jersey governor to step down.

Whitman has been wounded most severely by the Bush decision to reject a campaign

pledge and not work to reduce carbon emissions from power plants.

Carbon emissions are blamed by many scientists for causing the global atmosphere to warm, resulting in increasingly erratic weather and threatening public health and polar ice cap melting.

Whitman had been telling American allies earlier this year that the administration would seek limits on carbon, but in March, the president said he had changed his mind.

A Department of Energy report detailing the brewing electricity supply crisis out West, and expectations for further supply problems around the country, convinced Bush to reject limits on power plant emissions.

Whitman on Tuesday met with European Union officials, telling them she stood firm with the administration's decision to seek an alternative to the Kyoto treaty.

Bush said the U.S. economy would be harmed by the Kyoto terms, and stressed its inherent unfairness since developing nations like China and India are exempted from the cuts.

23. Report Released On NAFTA Cross Border Transportation And Air Pollution

The North American Commission for Environmental Cooperation (CEC) has released a study on the air pollution impacts of cross-border trade and transportation within NAFTA (North American Free Trade Agreement).

Key findings of the study areas follows:

< Currently, NAFTA trade contributes significantly to air pollution in all

- cross-border corridors, particularly in NOx and PM-10 emissions. Cross-border freight is responsible for 3% to 11% of all mobile source NOx emissions in the corridors and 5% to 16% of all mobile source PM-10 emissions.
- < By 2020, due to the expected reductions in emission rates from new truck diesel engines, total trade-related emissions of NOx and PM-10, despite trade volumes that will grow by two to four times, will not increase.
 - < Due to less stringent emission standards and slower engine turnover, the study expects an increase in NOx and PM-10 emissions from railway locomotives. In corridors with higher trade growth, NOx and PM-10 emissions from rail will increase 50% to 100% by 2020.
 - < Trade-related emissions of greenhouse gases (CO2) will not be reduced under the new emission standards, and are therefore expected to rise substantially by 2020.

According to the conclusions of the study, shifting freight from truck to rail would actually increase emissions since new truck turnover is much more rapid than locomotive turnover.

24. Mineta Wants Authority to Set Fuel Economy Standards

Transportation Secretary Norman Mineta said that Congress should release its six-year grip on auto fuel efficiency standards and return oversight authority to his agency. For most of the Clinton years, the Republican-controlled Congress prevented the Transportation Department from even studying an increase in national fuel efficiency standards.

They are set at 27.5 miles per gallon for cars

and 20.7 miles per gallon for light trucks, which include sports utility vehicles and minivans.

"For six years, we haven't been able to do anything with the CAFÉ (corporate average fuel economy) standard," Mineta told the House Transportation and Infrastructure Committee. "We ought to have Congress lift the sanction against the Department of Transportation."

He favored some kind of a government-imposed fuel efficiency minimum. "To the extent that CAFÉ standard is a floor, I think that's a good thing."

He did not elaborate on what the numbers should be, however.

With a Republican White House and Republican Congress in place, the U.S. auto industry in February dropped its lobbying efforts to maintain the congressional freeze on fuel standards.

The industry said it wanted to be part of a broader national energy strategy that would promote tax credits for fuel efficient vehicles instead of pursuing a legislative tactic.

A congressionally mandated study of fuel efficient standards is being done by the National Academy of Sciences, an independent group. Results are due in July.

In a related activity, Ford Motor Co., in a break with its Detroit rivals, is siding with some environmentalists in a behind-the-scenes fight on Capitol Hill over a proposal to use tax credits to jump-start demand for hybrid gas-electric vehicles.

It isn't clear that the proposal to offer tax breaks that could approach \$5,000 to buyers of the innovative fuel-efficient vehicles will become law. But Ford's decision to back the

plan, contrary to the strategies of General Motors Corp. and DaimlerChrysler AG, sends a signal that the No. 2 auto maker is willing to compromise so it can obtain federal incentives that will help the industry sell the kinds of fuel-efficient autos that environmentalists and regulators increasingly are calling for.

25. Daimler Chrysler To Challenge On Fuel Economy

After deriding for months the pledges of Ford Motor and General Motors to improve the fuel economy of sport utility vehicles and other light trucks by close to 25 percent, DaimlerChrysler A.G. has reversed itself and now says its light trucks will meet or exceed its rivals' models in average gas mileage.

DaimlerChrysler last year sold 1.9 million light trucks, a category that encompasses pickup trucks like the Dodge Ram and minivans like the Dodge Caravan, as well as sport utility vehicles like Jeeps and the Dodge Durango. G.M. sold 2.4 million light trucks and Ford sold 2.5 million. So the three manufacturers have now pledged to increase the gas mileage of nearly seven million vehicles a year, or two-fifths of the American market. Those improvements would be the first significant change in the fuel economy of any class of passenger vehicle in almost two decades.

"We are committed to improving the fuel efficiency of all our vehicles," Jürgen Schrempp, chairman of DaimlerChrysler, said in a statement. "Our fleet will match or exceed those of other full-line manufacturers."

He set no timetable for carrying out the standards.

Federal regulations require that each automaker sell cars that get an average of at least 27.5 miles per gallon. But the minimum

average required for light trucks is 20.7 miles per gallon, and DaimlerChrysler, Ford and G.M. barely meet that standard. As sport utilities have soared in popularity, the average fuel economy of new vehicles has fallen steadily.

This has alarmed environmentalists, because the burning of gasoline by automobiles is the second-largest source of manmade emissions of carbon dioxide, a gas linked to global warming. The decline in fuel economy has also worried people concerned about rising gasoline prices and about the world's dependence on oil from politically volatile areas.

Mr. Schrempp made a point, however, of saying in his statement that DaimlerChrysler would match or exceed what other automakers actually did, not what they promised. "Our yardstick is not what is announced, but is delivered," he said.

Because G.M. also pledged to beat only Ford, this means that everything depends on Ford's ability to carry out the commitments it made last summer. Jason Vines, a Ford spokesman, said Ford would meet its commitment. He noted that Ford had pledged in January 1998 to reduce sharply the air pollution from its sport utility vehicles by the end of that year, and had done so.

In a speech in Washington last July 27, Jacques Nasser, Ford's chief executive, promised to improve the average fuel economy of Ford sport utilities by 25 percent over the next five years. That would amount to nearly five miles a gallon.

Ford executives also said then that they planned to commit themselves this year to a similarly large increase in the fuel efficiency of minivans and pickup trucks, but have not yet done so. Mr. Vines said Ford was still

calculating the precise improvement that was technologically feasible.

Harry Pearce, G.M.'s vice chairman, responded to Mr. Nasser in a speech on Aug. 2, vowing that no matter how much Ford improved the average fuel economy of its sport utilities over the next five years, G.M. would make sure it had an even higher average fuel efficiency. Mr. Pearce then one-upped Mr. Nasser, saying the average fuel efficiency of all G.M. light trucks would be higher than Ford's average as well.

Federal fuel-economy standards have been frozen for the last six years by Republicans in Congress. Upset by high gasoline prices, Democratic and Republican senators from Western states allied themselves with environmentalists last summer in an attempt to let the Clinton administration raise the standards. In a compromise last summer, Congress ordered the creation of a committee of the National Academy of Sciences to assess American fuel- economy policy and deliver a report by this July 1.

26. EPA To Decide On Diesel Truck Groups' Request To Delay NOx Standard

The Environmental Protection Agency is expected to soon decide whether to let certain diesel truck manufacturers delay compliance with a new nitrogen oxide emission standard. Under a consent decree signed in 1998, the diesel truck makers are supposed to meet new NOx standards by October 2002, whereas the rest of the industry must meet them in 2004. The standards are scheduled to be tightened again for the entire industry in 2007.

The seven diesel engine manufacturers -- Caterpillar Inc., Cummins Engine Co., Detroit Diesel Corp., Mack Trucks Inc., Navistar

International Transportation Corp., Renault Vehicules Industriels and Volvo Truck Corp. -- were involved in the largest Clean Air Act enforcement action in history. The companies comprise 95 percent of the U.S. heavy duty diesel engine market. The settlement resolves around charges that the companies illegally installed devices in engines to substantially increase emissions to save fuel.

According to EPA, the illegal engines emitted more than 1.3 million tons of excess NOx in 1998 alone, which was six percent of all NOx emissions from cars, trucks and industrial sources that year. EPA added that the excess emissions were equivalent to the NOx emissions from an additional 65 million cars being on the road.

Under the consent decree, the companies agreed to spend more than \$1 billion to settle the charges, including an \$83.4 million civil penalty, the largest in environmental enforcement history. In addition, the companies agreed to meet new NOx standards by October 2002.

However, the companies have been talking with EPA officials over the past few months in an attempt to have the compliance deadline moved to January 2004, when the rest of the industry must meet the federal rules. EPA is expected to issue a decision soon.

A February letter from Detroit Diesel to EPA Administrator Christie Whitman explains, "This schedule is now in serious jeopardy due to the manufacturers' problems in testing the engines, time that was taken to develop EPA-desired data, and the lack of resolution of what electronic control functions EPA would approve for use with the new hardware and technology."

The possibility of such a delay has environmentalists and state and local

government interests outraged.

"The question is what might the compensation to the environment be if EPA allows this slippage," said Frank O'Donnell, executive director of Clean Air Trust. "We're talking about one of the biggest air pollution scandals in history, and tens of millions of extra tons of pollution were released. What will they do to make up for the increased pollution?"

Detroit Diesel said in its February letter to EPA, "Detroit Diesel is prepared to consider committing to substantial additional emissions reduction measures beyond what the company believes are needed to make a delay of the October 1, 2002, date emissions neutral, if doing so will achieve a resolution of this matter in the very near future."

27. Browner Blasts Bush on Environment

Carol Browner, who ran the Environmental Protection Agency under President Bill Clinton, spoke out for the first time against Bush administration policies, saying that "the breadth and speed of some of their anti-environmental actions has been stunning."

Browner, who headed the EPA for eight years, said she had been reluctant to criticize a new GOP team whose leader had defeated her mentor, Al Gore. But recent Bush decisions on arsenic in drinking water and carbon dioxide emissions, as well as a proposed budget that cuts environmental enforcement and scientific research, motivated her to go public.

"I recognize they have a different point of view," Browner said in an interview. "But the speed with which they have begun to reverse things is alarming."

The decision by her successor, Christie Whitman, not to implement tighter standards on arsenic in drinking water particularly bothered Browner because the Bush administration said that "not enough science had been done."

"This was a 10-year process mandated by Congress," said Browner, who had ordered the stricter standards in December. "It's unfair to suggest that this extensive scientific process, with public participation, was a rush to judgment. It simply wasn't."

More generally, Bush's proposed budget, recently released, would reduce the EPA budget 6 percent, with heavy cuts in enforcement. Whitman pointed out that a new \$25 million program would help shift responsibility for some enforcement to the states.

Browner argued that states could expand their role, but that should not reduce EPA's work. "Why cut national enforcement unless what you're trying to do is limit the number of big cases that can be filed," she said. "That's where you get the greatest reduction in pollution."

She cited strict rules enacted last year aimed at reducing sulfur emissions from diesel trucks and buses by 95 percent as an example of an "industry wide situation" that only EPA can handle.

On global warming, Bush and Whitman have said they will develop their own policies, after backing out of the global Kyoto agreement to curb gas emissions that help cause the problem. In addition, last month Bush reversed a campaign pledge to limit carbon dioxide emissions from electric power plants, overruling Whitman.

Browner said Bush's decisions were

"precipitous" and "had weakened the United States' role in the international arena on this issue."

She said the new administration may be underestimating public interest in these issues.

"People don't think their air and water are too clean, and they know government has an important role here," said Browner, who recently joined the board of the National Audubon Society. "They want a strong environmental cop on the beat."

28. Whitman Says US To Work On Climate Change, Not Kyoto

The United States is prepared to work with its allies on global warming but considers emission cuts under the Kyoto Protocol the wrong way to do it, Christine Todd Whitman told the annual meeting of the National Wildlife Federation. She said that the president wants to be "proactive" on climate change, but would not support Kyoto.

"The U.S. wants to work with its allies to get a doable, achievable program on climate change," Whitman, who has earned scorn and sympathy for her stances on the environment, said, noting the U.S. Senate voted unanimously against the premise of the Kyoto framework during the Clinton administration.

"It was difficult to imagine a scenario under which that treaty" would have been ratified by the Senate, she said.

Whitman had been telling American allies the administration would seek limits on carbon before the president said he had changed his mind, undercutting her credibility.

When asked if the Kyoto pact were dead,

Whitman said it was not up to Washington to declare the process "dead," since other countries must decide on their own what position to take. "The Kyoto Protocol was signed by 54 parties, but only one of the 54 has ratified. Clearly, there are real concerns" by other nations, Whitman said.

"We are committed to addressing climate change, and have started a Cabinet-level review of previous policies on climate change. When we're finished with that, we'll make our recommendation to the president," she said.

Whitman made clear the administration's support for a voluntary approach to reduce greenhouse gas emissions, most of which comes in the form of carbon dioxide pollution generated by power plants, automobiles and heavy industry. She said "voluntary efforts (in the United States) have already had a positive impact," leading to declines in the growth of carbon emissions even as the economy expanded dramatically in recent years.

Whitman, who received a partial standing ovation when she finished her talk to the conservation group, also defended other environmental decisions by the administration.

She said the suspension of a new rule to restrict arsenic in drinking water needs time for further review, and the administration should not be prejudged for its motives.

29. Bush Budget Proposal Cuts Environment Funding By \$2.3 Billion

Federal funding for an array of environmental programs in fiscal 2002 would shrink by about \$2.3 billion under the budget proposal President George W. Bush submitted to Congress. Bush is requesting \$26.4 billion for federal natural resources and environment

programs for the fiscal year that begins October 1, down from the \$28.7 billion that was planned for the current fiscal year. Among the federal programs included are clean air and clean water protections, research on global warming, national park and national forest activities and land conservation. The programs are run by several departments and agencies, including the Environmental Protection Agency, the U.S. Agriculture Department and the Interior Department.

The proposed cuts, which still must be reviewed by Congress, would include a four percent reduction in agencies' research on global warming. Funding would shrink to \$1.6 billion in the next fiscal year, from the current year's \$1.8 billion. The budget would prohibit the United States from spending any money to implement the 1997 Kyoto treaty that aims to cut greenhouse gas emissions suspected of contributing to global warming.

Overall, EPA funding would be cut by nearly \$500 million from the previous year's level. EPA Administrator Christine Todd Whitman said the spending reduction would be accomplished by eliminating or phasing out a series of programs Congress added to the Clinton administration budget request last year. Those projects, Whitman said, were "important" to individual members of Congress but "don't reflect administration priorities."

Defending her administration's commitment to the environment, Whitman argued that the fiscal 2002 budget proposal for EPA is actually \$56 million above President Bill Clinton's request for the current fiscal year.

Both EPA and the Interior Department in the new administration are putting greater emphasis on state and local governments taking charge of environmental and natural

resources programs. For example, EPA would give states more latitude in enforcing federal environmental standards and the Interior Department would channel an unprecedented 50 percent of the Land and Water Conservation Fund to the states.

The latter program was created in 1965 and uses revenues from off-shore oil and gas production in federal waters to purchase federal and state lands.

Regarding EPA's enforcement, as a first step, the administration's proposed fiscal 2002 budget would cut \$10 million, resulting in a 9 percent reduction in the EPA's enforcement staff in Washington and regional offices, while providing the states with \$25 million in grants to step up enforcement and \$25 million more for environmental assessments.

The proposal, if approved by Congress, would mark a significant departure from a more aggressive policy of federal enforcement and prosecution of polluters since the EPA's creation in 1970. The agency was founded during the Nixon administration to address environmental problems that were being ignored by state and local officials or that were beyond the resources of the states to address.

States have a mixed record of enforcement, with some taking an aggressive role and others tolerating flagrant violations of environmental laws by industry, according to environmentalists and federal enforcement experts. It has fallen to the EPA and the Justice Department to ensure relative uniformity in the enforcement of environmental laws and to pursue complicated civil and criminal cases beyond the capability of states to handle on their own.

President Bush said during last year's campaign that he wanted to give states more influence over the enforcement of laws

affecting their residents and economies. EPA Administrator Christine Todd Whitman and Interior Secretary Gale A. Norton, both former state officials, have said they know what it's like to be on the receiving end of heavy-handed federal mandates. Both favor programs that allow industrial polluters to voluntarily comply with laws without the threat of prosecution.

Under the proposed budget, the Energy Department's core solar, wind and other renewable energy programs would be cut by more than half to \$186 million from current spending levels of \$376 million. The department's efficiency research programs, which seek ways to reduce energy use, would be cut by \$61 million to \$795 million in the 2002 spending year that begins Oct. 1. While Energy Secretary Spencer Abraham said the U.S. is in its worst energy crisis since the Arab oil embargo of the 1970s, he justified the budget reductions by arguing the research programs have not produced results that could be applied in the marketplace.

"We decided it made little sense to continue forward with programs that have not helped us avert the energy crisis," he told reporters. The funding reductions for renewables and energy efficiency programs are part of \$500 million in overall cuts that would drop the Energy Department's budget to \$19.2 billion.

Bush's budget assumes the federal government will raise \$1.2 billion in bonus bids for oil and natural gas leases in Alaska's Arctic National Wildlife Refuge in 2004. The White House proposes to spend that money on alternative energy programs over seven years. However, there is growing opposition in Congress to allowing drilling in the Arctic refuge for environmental reasons, so the money may never materialize.

The president's budget also proposes

spending \$150 million to develop less-polluting coal for fueling electric generating plants and would keep spending for nuclear power high.

Vice President Dick Cheney said a special White House energy task force is considering the increased use of nuclear power, and he personally believes the United States needs to build more nuclear power plants. No utility has been issued a federal license to build a nuclear plant in two decades.

Renewable energy groups said the cuts will undermine efforts to boost energy supplies in the Western part of the United States, which has been hit with high electricity costs and in California by rolling blackouts.

The Alliance to Save Energy contends that the programs under the administration's budget ax now save consumers more than \$25 billion each year, lessen oil imports and prevent tons of pollution. "Faced with sky-high heating bills, increased gasoline prices, and new prospects for electricity shortages, the nation needs to invest more heavily in energy efficiency, which remains the cheapest, quickest and cleanest way to lessen energy problems and extend energy supplies," said Alliance president David Nemtzow.

To boost U.S. electricity supplies, Bush's budget proposes expanding a tax credit for producing electricity from wind and other certain sources and applying it to more power plants. The current 1.5-cent tax credit for each kilowatt-hour of electricity produced from wind, organic biomass material and poultry waste would be extended for three more years to power plants built through 2004.

In addition, eligible biomass would be expanded to include forest-related and agricultural sources.

Bush also proposed a new tax credit of up to \$2,000 for individuals purchasing solar energy equipment to generate electricity or heat water in homes.

The administration also wants to increase funding by \$120 million for the federal weatherization program, which helps low-income families make homes more energy-efficient.

A last-minute decision could knock as much as \$39 million out of the PNGV research partnership with Detroit's Big Three automakers and truck manufacturers seeking breakthroughs in producing cleaner, more efficient cars and trucks. Funding drops by 28 percent. Energy Secretary Spencer Abraham said the department followed manufacturers' wishes for more "flexibility" in how research dollars are spent.

Congress will spend the next few months finalizing a spending plan for the federal government for fiscal 2002.

30. New York City To Clean Up Garbage Truck Emissions

The New York Department of Sanitation is launching a program to reduce pollution from up to 260 of its diesel-burning garbage trucks over the next three years. The program, which results from the \$1 billion 1998 settlement between the Department of Justice and diesel engine manufacturers, is aimed at cutting carbon particles from diesels. The program intends to reduce these particle emissions from the truck engines by about 90 percent.

Garbage trucks traditionally have been omitted from emissions reductions programs because, unlike highway diesel trucks, they run at slow speeds. That means heavy duty diesel engines do not ordinarily reach the high temperatures needed to burn off carbon

particles captured in filters, and in turn the carbon particles flow out exhaust pipes.

The NYC DOS will buy low sulfur diesel from RAD Energy Corporation, based in Purchase, N.Y.

Under the first phase of the program, which gets underway this summer, 10 garbage trucks will be fitted with emissions devices manufactured by Johnson Matthey Plc and Engelhard Corp.

31. Mexico To Introduce Ecological Tax

Mexico Environment Minister Victor Lichtinger has indicated that a tax reform bill sent by the executive branch to Congress included important clauses needed to take swift action to protect Mexico's ravaged environment.

Mexico's capital is one of the most polluted cities in the world - according to independent reports - deforestation and overgrazing have devastated many regions and a recent study shows 93 percent of the country's water supply is contaminated.

Lichtinger, a former environmental consultant for Mexican businesses, came in with the Cabinet of new President Vicente Fox, who was the candidate of a coalition including the conservative National Action Party (PAN) and the Mexican Ecological Green Party (PVEM).

Lichtinger said the tax reform bill also included a proposed tax that will make the worst polluting new cars the most expensive. "It is an ecological tax designed to reduce the incentive to buy cars that pollute the most," he said.

Cars with bigger engines and more cylinders will be taxed more heavily than cars with smaller ones. The tax will punish car makers

for building cars with outdated motors, he said.

"Here in Mexico some of the car builders do not put in their automobiles the more modern engines that comply with emissions standards in other countries," he said.

ASIA-PACIFIC REGION

32. Recent Developments in Japan

At both the national and municipal level, there remains very strong pressure to dramatically reduce particulate emissions and efforts are therefore underway at both levels.

A. Tokyo Metropolitan Government (TMG) Program

Tokyo remains committed to cleaning up or eliminating their diesel vehicles. Two major efforts are underway – one focused on retrofitting existing vehicles and one focused on eliminating the oldest vehicles. Each program will be discussed below:

i. Retrofit Program

Tokyo has been working with two main suppliers at this point.

Twenty-two of one system have been placed in service. These systems were operated on

fuel with approximately 350 PPM sulfur. Based on the initial results, a modified system was developed and installed on a small number of vehicles. As of April 1, all the fuel used in these vehicles (operated by Nippon Air Brake Company - NABCO) will switch to 50-PPM sulfur fuel.

Six systems have been placed in operation by another supplier.

Other systems are also emerging. One company is evidently planning to install a system on two buses in a couple of weeks. Other companies are pursuing other systems as well according to TMG but installations have not yet occurred.

Low sulfur diesel fuel, 50 PPM maximum, is becoming widely available to the TMG and they believe that they can get all the low sulfur fuel they need. Typical diesel fuel costs about 60 yen per liter and the low sulfur is priced 10 yen per liter higher.

ii. TMG In Use Vehicle Standards

TMG has adopted a prohibition against driving diesel vehicles that do not satisfy Tokyo emission standards for PM (see Table below). This will essentially require existing vehicles to install diesel particulate filters (DPF).

Vehicle type	Testing mode	Emission standards	
		From: Oct 2003	
		To: 2005	From 2005
Diesel Vehicles --GVW 1700kg or less	10-15 mode	0.08g/ km	0.052g/km
Diesel Vehicles --GVW from 1701 to 2500kg	10-15 mode	0.09g/km	0.06g/km

Diesel Vehicles --GVW more than 2500kg	Diesel 13 mode	0.25g/kg	0.18g/km
---	----------------	----------	----------

Essentially, this program is intended to force all pre 1989 model year diesel vehicles off Tokyo's roads. According to the national NOx law, these vehicles cannot be used after 2005 in any event. With the new Tokyo program, they will require a retrofit system in 2003 if they wish to survive until 2005. After 2005, the Tokyo standards are intended to require retrofit DPFs on all in use diesel vehicles.

B. National Program

At the national level two developments are emerging – the accelerated introduction of the “long term standards” and low sulfur fuel and modification of the so-called NOx law.

i. Tighter Standards and Low Sulfur Fuel

As previously announced, the government will require all diesel fuel to be less than 50 PPM sulfur by the end of 2004 and all new vehicles starting in 2005 to meet PM standards at least 50% lower than previously adopted. The clear intention is that all new diesel vehicles sold after 2004 will be equipped with a diesel particulate filter.

ii. Modification of the NOx Law

The NOx law has been in effect for over a decade and it essentially prohibits the use of older trucks in the highly polluted areas of Tokyo and Osaka. This law will now be modified and expanded to include PM control.¹

¹ While this has not yet passed the diet, it appears that this is only a formality as the Cabinet has approved it.

In summary, in Osaka and Tokyo, the NOx restriction will be expanded to include passenger cars as well as trucks. Further and more importantly a new PM provision will be added for the cities of Nagoya, Tokyo and Osaka.² All vehicles under 3.5 tons sold in these cities must meet the “most stringent” available standards. If this provision is interpreted to mean that diesel vehicles must meet gasoline standards that will effectively ban light duty diesels.³

33. Recent Developments in China

China's parliament has approved the country's blueprint for economic development in the next five years. Maintaining an average 7 percent GDP growth per year, the country expects to increase its total GDP to 12.5 trillion yuan by 2005 at the 2000 price level. Highlights of the 10th Five-Year Plan (2001-2005) in relation to the transportation and automobile industry are listed as follows:

- < Expand national highways to 1.6 million km in length, with a total of 25,000 km expressways;
- < Develop agricultural machinery, civil ships and economy sedans;
- < Raise the production level of motor vehicles and key automotive parts and

² The primary political motivation for this law is the series of court cases that have focused on the adverse health effects of particulate from vehicles. Interestingly, the courts have not highlighted the impact of NOx because it is believed that exposure to NO₂ in the home as a result of cooking is much higher than that due to outdoor air pollution.

³ This has not yet been decided. The law will leave this issue vague and it will be up to the implementing authorities to decide what it means.

- < components;
- < Actively develop high-efficient, low-emission engine and hybrid engine systems;
- < Remove all unreasonable rules that restrain or discriminate against investment;
- < Protect the rights of all enterprises, regardless of ownership;
- < Lift regional protectionism and remove all rules and regulations that hinder the formation of a unified market;
- < Develop urban public transportation
- < Encourage family ownership of cars; and
- < Reduce urban air pollution by 10 percent.

35 of the world's 50 top auto suppliers have formed joint ventures in China. Analysts predict that China will need 2.4 million vehicles to meet the market demand in 2001. With a 13 percent increase in production and sales last year, it is widely believed that China will become the most attractive market for auto suppliers in the world after it enters the WTO.

34. Delhi Still Wrestling With Diesel Problem as Sufficient Buses Not Yet Converted

In Delhi, the April 1 Supreme Court ordered clean air deadline came with many companies unprepared to follow the 1998 order. As a result, India's crowded capital was hit with a one day transport crisis.

Under a 1998 Supreme Court order, all commercial transport had to convert to compressed natural gas (CNG) by April 1. But with only a fifth of the total bus fleet in compliance, most of the capital's 15,000 coaches had to be taken off the road.

Public frustration erupted in violence as mobs

clashed with police, burning several buses after forcing passengers off the vehicles. But figuring out who is to blame for the crisis is the main activity. Some commuters blame the city, which has done little in the area of transportation to implement the court's 1998 order. Some officials, for instance, were still issuing permits for diesel buses and taxis even a few months ago, because most people - including bus and taxi drivers - believed the order would be postponed indefinitely through legal appeals.

Others blame the army of bureaucrats required to issue, stamp, restamp, cross-check, and verify the permits of vehicles that have converted to Delhi's fuel of choice: CNG. Still others blame the business community, which had years to comply with the new rules, but waited until the last minute to do so.

What was not under dispute, however, was the shortfall of vehicles on New Delhi's streets, and the longer commutes on April 1. Nearly 15,000 public and private buses, 20,000 three-wheeler rickshaws, and 50,000 taxicabs were forced off the roads. The transportation crunch is only expected to get worse when a string of holidays ends and schools reopen, with no buses to take children to school.

In response, commuters got a temporary reprieve after authorities extended the deadline for bus operators willing to convert to a greener fuel to run their vehicles.

The Supreme Court relented on an earlier deadline of March 31 and approved the city administration's new date of April 15 for transport operators willing to switch to the cleaner CNG.

The Supreme Court decision averted a legal showdown between the court and the state

government.

The Delhi government said it would allow transporters willing to shift to CNG from diesel to continue operating their buses until April 15. But it said they would have to obtain an affidavit showing their commitment to switch to the greener fuel and get a special permit from the state transport authority by April 15 committing them to complete the change by September 30.

The Supreme Court has been spearheading a drive to curb pollution in Delhi, rated one of the world's dirtiest cities. In its decision agreeing to the deadline extension, the three-judge bench headed by India's chief justice rapped the Delhi government for its "administration lapses" that caused delays in issuing permits to transporters. The court had blamed the state administration for commuters' woes, saying it had been too slow in issuing the special permits.

35. China Assures EU Over Commitment To Kyoto

China has assured the European Union of its commitment to the Kyoto agreement on global warming after the United States refused to support the pact, the EU said .

An EU troika led by Swedish Environment Minister Kjell Larsson was in the Chinese capital after talks in Iran and Russia on salvaging the Kyoto Protocol. "We have been very much reassured they really want to be part of the process ...and are prepared to get ahead even without the US," Larsson said after meeting Chinese officials including environment minister Xie Zhenhua.

China had rejected US President George W. Bush's contention that the Kyoto agreement let developing nations off the hook on measures to fight global warming, the

Swedish minister said. "This of course is not true. The Chinese have shown some very good results," he said, citing a 30 percent reduction in China's use of coal.

"China has already done a lot and efforts are going to continue under the next five-year plan," said James Currie, the European Commission's environment chief. "China has been very supportive of the approach taken by the EU, we regard this as very positive," he added. "Correcting the misconceptions is an important part of the process."

At the Kyoto conference, China had led the way in seeking to exclude developing nations from firm targets for greenhouse gas reductions, arguing that their economic development would be undermined.

China is the world's second-biggest producer of carbon gases, accounting for 14 percent of world emissions compared to 25 percent for the United States.

GENERAL

36. Ballard Links Up With Honda Research

Ballard Power Systems has announced that it will supply a research subsidiary of Honda Motor Co. with C\$25.9 million (\$16.5 million) worth of its fuel cells for use in the auto maker's alternative fuel vehicle project.

Honda R&D Co. Ltd. of Saitama, Japan, began to purchase Ballard's Mark 900 Series fuel-cell power modules and support services in February 2001 as part of the deal.

Honda is one of a handful of automotive companies, including Nissan and Volkswagen, to have purchased Ballard's fuel cells, with Ford and DaimlerChrysler acting as partners.

37. Toyota Plans Summer Roll-out of Fuel Cell Test Car

Toyota Motor Corp, Japan's biggest automaker, has announced that it aims to roll out for a test drive this summer a prototype of a new zero-emission vehicle powered by a fuel cell and a battery. The public debut would follow closely on the heels of a joint road test in February of a fuel cell car by the Japanese unit of DaimlerChrysler AG and Mazda Motor Corp, an affiliate of Ford Motor Co.

The latest version of Toyota's fuel cell hybrid car will be based on a five-passenger Highlander sport-utility vehicle and run primarily on a fuel cell producing 90 kilowatts of power, compared with 25 kW in the previous version unveiled in 1997 and 65 kW for the Mazda-tested vehicle.

Despite a slew of unresolved technical problems, Toyota was upbeat on the outlook for fuel cell cars. "We might be able to get fuel-cell cars sooner than many are expecting," Toyota Managing Director Hiroyuki Watanabe told a briefing for reporters.

Asked if fuel cells were at a technical turning point, however, Watanabe noted that a number of issues, including cost, safety and reliability, need to be addressed before fuel cell vehicles become a common sight on the world's roads - considered unlikely until 2010 or later.

Watanabe's optimism was based in part on the success of Toyota's Prius hybrid electric

vehicle, which combines a gasoline engine with an electric motor to achieve nearly double the fuel efficiency of a conventional gasoline-engine vehicle. Toyota has sold more than 50,000 of the cars since their November 1997 launch, exceeding initial expectations, he said.

The fuel cell hybrid would essentially replace Prius's gasoline engine with fuel-cell power.

Watanabe also played down differences between DaimlerChrysler's fuel cell prototypes using methanol fuel, from which hydrogen is extracted, and Toyota's concept of using de-sulfurized gasoline, which would be more easily integrated with existing fuel distribution infrastructure. "There will be various processes," Watanabe said, adding that the pursuit of several different options would help speed up the adoption of hydrogen fuel.

Potential advances on a number of technological fronts, such as the possibility of making hydrogen storage tanks for vehicles from carbon nanotubes - a material targeted by intensive research efforts due to its strength and light weight - could also alter the way fuel cell vehicles develop.

DaimlerChrysler, which is cooperating in fuel cell development with Ford, Mazda and Ballard Power Systems, said last month it would deliver thirty 200-kW fuel cell-powered buses to European bus operators beginning in 2002, although issues of cost, size and weight will substantially complicate the development of fuel cell passenger vehicles.