



# CLIMATE WATCH

THE BULLETIN OF THE GLOBAL CLIMATE COALITION

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## Executive Director's Column

### UN LAUNCHES INTERNATIONAL CLIMATE CHANGE BUREAUCRACY

By John Shlaes

It's been nearly two months since representatives of 160 nations departed Berlin after laying plans to push the climate issue well into the next century.

It was obvious to all participants in the Berlin process that the United Nations leadership, several multilateral organizations, groups such as the European Community (with strong German backing), and over 1000 environmental NGO "observers" were intent on institutionalizing the climate issue. Decisions made at the two-week Conference of the Parties (COP) laid the groundwork for new U.N. negotiations and the establishment of several new domestic and international climate programs.

The most significant agreements centered around a document known as the "Berlin Mandate." This new mandate instructs COP participants to negotiate the "adoption of a protocol or another legal instrument" and "to ensure completion of the work as early as possible in 1997." The mandate also outlines several initiatives that will be central to these upcoming negotiations, which we now understand will begin in August of this year. These initiatives are:

- "Aim....to elaborate policies and measures, as well as to set quantified limitation and reduction objectives within specified time-frames, such as 2005, 2010, and 2020..."
- "Not introduce any new commitments for Parties not included in Annex 1..."

### STUDY FINDS ESTIMATES OF GREENHOUSE EFFECT OVERSTATED

All the comparisons between observation and theory in global warming...indicate that if the concentration of Carbon Dioxide (CO<sub>2</sub>) doubles in the next 100 years, the result in temperature increase is likely to be less than one degree, and may be less than 0.5 degrees Celsius."

The authors of *The Global Warming Experiment*, the fourth in a series of George C. Marshall Institute reports on global warming, arrived at this conclusion after examining the latest scientific research on global temperature change.

The report examines major uncertainties in theoretical estimates of the greenhouse effect that are based on computer simulations of the earth's climate. These simulations of global temperature responses to a doubling of carbon dioxide in the earth's atmosphere range from 1.3 degrees Celsius to more than 6 degrees Celsius (2.3 to

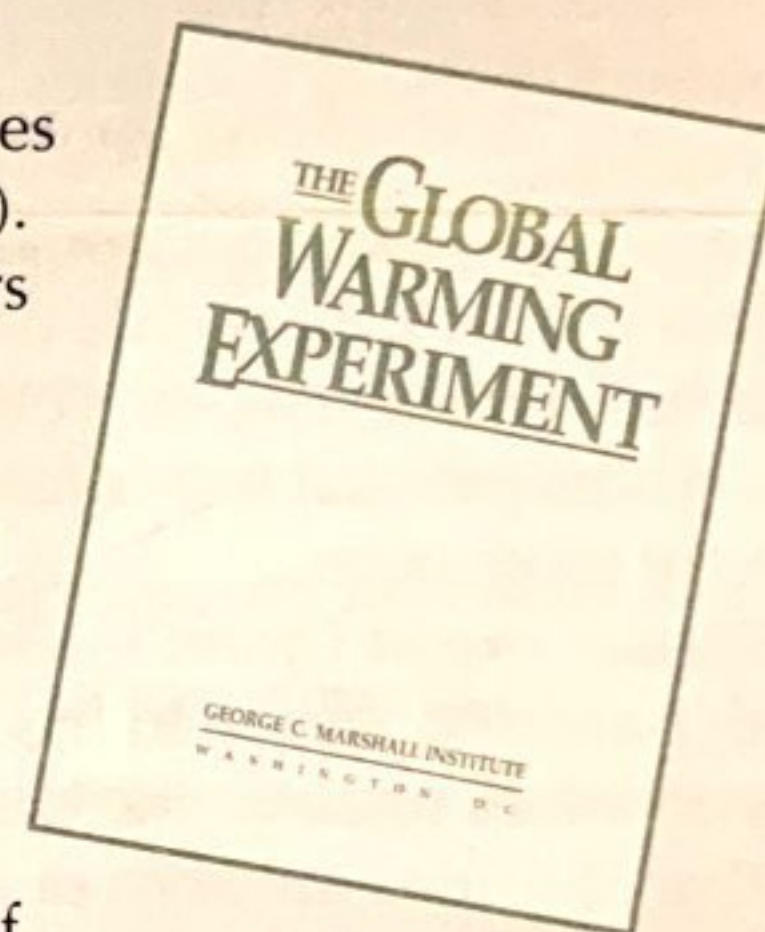
10.8 degrees Fahrenheit).

The authors note that climate experts do not know enough about various

elements of the earth's climate to determine whether greenhouse warming in future decades will be considerably greater than one degree or considerably less.

The report indicates that the study of the paleoclimate record of early changes in temperature and carbon dioxide over the past hundred million years — often used as a source of information to narrow uncertainties in climate forecasting for the next century —

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- "The process will include in its early stages an analysis and assessment, to identify possible policies and measures for Annex I Parties..."
- "The protocol proposal of the AOSIS ...along with other proposals and pertinent documents, should be included for consideration in the process..."

Developing countries are not required to take on any additional responsibilities outside of their already existing commitments to evaluate current greenhouse gas flows — and then, only if the developed world finances it. This moves international politics ever further in front of scientific understanding while also ignoring the continued uncertainty

over the extent of any future climate change. It also ignores the global nature of the issue if future action proves to be necessary.

Underlying industry's concern with the agreement to debate new measures are principles that industry shared with representatives from such Federal agencies as State, Commerce, USTR, DOE, EPA and others previous to the March meeting:

1. Additional research is critically needed to address the outstanding scientific uncertainties that surround climate change before undertaking any

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## INTERNATIONAL NEWS UPDATE

**Russian and Colombian Experts Question Global Warming**

The theory that mankind has triggered global warming is unreliable and exaggerated, reported Colombian expert Jose Fernando Isaza in testimony before a UN Committee.

Citing the role of oceans, temperature cycles and volcanoes on the Earth's climate, Isaza questioned the greenhouse effect and called it "discriminatory against developing countries' access to technology."

Isaza said he found it ironic that the global warming theory has become popular now that developing countries are using conventional technologies for energy production.

Russian expert Dmitri Volfberg agreed with Isaza and suggested that developing countries research the cost of cutting carbon dioxide emissions or utilizing nuclear energy. (XINHUA: 2/9)

**Termites Contribute to Global Warming**

A new culprit has been identified in the search for sources of greenhouse gases. Free from any requirements under the Framework Convention on Climate Change, this crowd could be tough. It turns out that termites emit 27 million tons of methane annually, according to

French researcher Corinne Roulard in a review published by France's National Institute of Agronomic Research.

In tropical forest regions, termites ingest 6 to 7 tons of timber and other organic materials which cause flatulence that emits methane.

A total of 77 million tons of methane is released annually by cows and other animal life. (AGENCE-FRANCE PRESSE: 3/3)

**IEA Report Predicts Rise in Developing Nations' Emissions**

Developing nations will be responsible for almost 70 percent of greenhouse gas emissions by the year 2010 according to a study by the International Energy Agency (IEA).

Greenhouse gases will increase about 10 percent by the year 2000 and possibly 40 percent by the year 2010, reported Robert Priddle, executive director of IEA. "A greater part of the increase is going to come from the less-developed world, the part of the world which has not given commitments under the Rio convention."

One hundred and thirty nations met at the recent climate treaty negotiations in Berlin. However, developing countries have not committed to limiting greenhouse gas emissions. Instead they are required to submit a report on sources of

emissions within the next two years.

Already developing nations and the former Soviet Bloc emit more than 50 percent of CO<sub>2</sub> emissions. By the years 2025 and 2100, those percentages will be 67 percent and 78 percent, respectively, according to the United Nations.

(AP: 4/25)

**CO<sub>2</sub> Emissions in China Predicted to Grow Rapidly**

In China, CO<sub>2</sub> emissions may grow from 626 million tons per year to 1.9 billion by 2050 as a result of rapid development, according to an Asian Development Bank (ADB) study.

As a result, a top Chinese conservationist recommended that the worst polluters be moved to the outskirts of cities.

"China has the world's highest degree of urban air pollution and the greatest number of heavily polluted cities," said Qu Geping, director of the Committee for Environmental and Resource Protection under the National People's Congress.

Both Geping and the ADB study suggested that China, which depends on coal for 76 percent of its energy, increase its practice of energy efficient technology.

By improving the efficiency of China's coal-fired power plants, emissions could be cut dramatically. (UPI: 4/17 AND COAL & SYNFUELS TECHNOLOGY: 3/6, P. 6,7)

## INDUSTRY INITIATIVES

**Kaiser Aluminum to Further Reduce Greenhouse Gas Emissions**

In a continuing program to reduce greenhouse gas emissions from its smelters, Kaiser Aluminum & Chemical Corporation announced a plan to decrease by 40 percent the emission of polyfluorinated compounds (PFCs) from its two primary smelters by the year 2000. This reduction from the base year 1990 follows similar actions by Kaiser that lowered emissions approximately 70 percent prior to 1990.

Kaiser has been working with the Environmental Protection Agency (EPA) since 1993 to frame the EPA industry effort to reduce PFC emissions. This task

force has furnished emission measurement data and provided technical assistance to EPA's research and development program, and has cosponsored an international workshop among member companies on reducing PFC emissions.

Kaiser is a charter member of an innovative program, the Voluntary Aluminum Industrial Partnership (VAIP) announced on April 10, 1995 by EPA.

The company's history of involvement in PFC reduction dates back to the early 1980s with the groundbreaking development of a reduction cell (pot) computer control technology called CELTROL. This technology was installed throughout Kaiser's worldwide

primary aluminum operations.

Since 1980, CELTROL and other conservation efforts have reduced by 15 percent the amount of energy used at its Northwest smelters. Estimates for the period 1980 through 1987 indicate that the installation of CELTROL at the company's Mead smelter (near Spokane, Washington) alone has reduced PFC emissions by approximately 70 percent. For the period 1988 through 1990, CELTROL enhancements achieved an additional calculated emission reduction of 20 percent from the 1988 base.

For further information contact: Susan Ashe at (509) 927-6065 or Elizabeth Simon at (510) 847-5880.

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## Study Finds Estimate

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is distorted by factors extraneous to the greenhouse effect. This, the authors contend, makes it impossible to derive the desired information from the paleoclimate record.

*The Global Warming Experiment* also considers the magnitude of the greenhouse effect by looking at the record of changes in carbon dioxide and temperature extending over the past 50 to 100 years. A variety of evidence based on this record shows that temperature increases produced in the 21st century by man-made greenhouse gases will be relatively minor and indistinguishable from natural fluctuations of climate. Instead of the expected warming trend of 0.3

degrees Celsius/decade predicted by computer simulations of the greenhouse effect, satellite data show a slight cooling trend of -0.06 degrees Celsius/decade for the 16 year interval 1979-1994. (See Figure 32 of the report.)

"It can be said," the authors of the Marshall report write, "that, by introducing greenhouse gases into the atmosphere, humankind has carried out an experiment which indicates how the earth's climate responds to an increase in these gases. The results of the experiment are now in: Satellites have taken the earth's temperature and they reveal that the temperature, averaged over the globe, is rising at a rate in the neighborhood of 0.1 degree Celsius/decade for the 1980s and the 1990s to date. That is three times smaller than the global temperature rise predicted by the computer

simulations of climate change for the same period. Measurements of temperature change in the U.S. over the last 100 years, which form a part of the experiment, also suggest that the greenhouse effect is producing a much smaller temperature increase than was predicted by the computer simulations of climate change."

The authors also suggest that "sufficient evidence has been accumulated on the small size of the man-made greenhouse effect to make it plain that no scientific justification currently exists for economically punishing policies aimed at global reductions in the emission of carbon dioxide."

For a copy of *The Global Warming Experiment*, contact The George C. Marshall Institute at (202) 296-9655.

## DEEP SEA SOURCE FOR EL NIÑO?

A novel explanation for the mysterious El Niño climatic disturbances — that some believe are caused by global warming — claims the genesis of the episodes has little to do with the atmosphere or sea.

As reported in *The New York Times* (4/25), Dr. Daniel A. Walker, a geophysicist at the University of Hawaii, believes erupting lava between tectonic plates heats the overlying Pacific Ocean, which in turn affects surface waters in such a way as to bring on El Niño. Volcanic activity between the tectonic plates produces a heating of the seas equal to that of 3,000 large nuclear reactors.

To date, scientists have been mystified about the cause of El Niño. They do know, however, that the phenomenon is a warming of surface waters in the eastern Pacific. This warming is brought by trade winds that normally travel westward, but then reverse themselves and cause warm Pacific waters to flow eastward toward South America. This activity brings heavy rains, along with the destruction of fisheries, to the region.

Dr. Walker developed his theory after

analyzing data collected from a seismometer he placed on Easter Island. Dr. Walker noted that his seismometer registered its highest readings at the same time seismometers in South America recorded sea quake activity.

**"...we're spending millions of dollars in other disciplines to solve the El Niño problem. What does that say about science?"**

In the 1980s, Walker began following the scientific information on El Niño and found that the climatic disturbance was linked with the weakening of the high-pressure zone near Easter Island and the weakening of the trade winds. "That's all it took," Dr. Walker noted in the article, "...and my mind went click."

After studying decades of seismic records and discovering there was a correlation between sea quakes on the East Pacific Rise and the El Niño cycles, Dr. Walker developed his thesis. Although he was able to demonstrate the correlation, he had more difficulty

explaining the mechanism for the rising water temperature.

Dr. Walker's efforts were advanced during the 1990s when he became aware of the work of American scientists who were studying the Juan de Fuca ridge, a spreading center of volcanic activity on the ocean floor near the West Coast of the United States. Their work produced information on huge upwellings of warm water, known as megaplumes. Dr. Walker used this new information to link the strong eruptions he recorded on Easter Island with the most recent El Niño.

Walker's theory was recently cited by Dr. D. James Baker, Administrator of the National Oceanic and Atmospheric Administration, who acknowledged that it was a possible explanation for El Niño.

Dr. Walker has stressed that he is not proposing volcanism as the only explanation for El Niño. He has called for continued research on his findings and believes skepticism about what he has accomplished probably stems from a disciplinary bias. "It's geology, and it's being ignored. Yet at the same time we're spending millions of dollars in other disciplines to solve the El Niño problem. What does that say about science?"



## Climate Bureaucracy

*Continued from front page*

new commitments. Many scientists believe current climate models are an inadequate basis for policy decisions, particularly in how these models account for water vapor and cloud cover. Furthermore, there has been no direct link between emissions of man-made greenhouse gases and observed temperature rise.

2. It would be premature to enter into negotiations for new and additional commitments without first undertaking a thorough analysis of the potential impacts on economic growth and trade competitiveness for all countries, as a result of the proposed measures.
3. The first review of national communications demonstrated that there are important differences in national circumstances and unevenness in approaches to achieving the convention's commitments. Furthermore, some of the reports contained deviations from the guidelines established for them which need to be effectively addressed by the COP. These issues need to be resolved to ensure that all countries are operating from the same baseline and can meet the current terms of the convention before discussing additional commitments.

In testimony given at a recent hearing by the House Subcommittee on Energy, Undersecretary of State Tim Wirth indicated that the administration's interpretation of "reductions" was flexible and could include other types of approaches, including joint implementation.

An emerging concern is that the relevant analyses of potential economic and competitiveness impacts of new and additional measures have not been completed either by the U.S. or the U.N. This would seem especially important in light of a new study on energy use and greenhouse gas emissions by the International Energy Agency (a branch of the OECD) which indicates that "a greater part of [the future] increase [10% by the year 2000 and 40% by 2010] is going to come from the less-developed world — the part of the world which has not given commitments under the Rio Convention."

Other important issues discussed in Berlin that could lead to the creation of new UN and OECD structures included the establishment of a Climate Technology Initiative and a special Joint Implementation agreement. (See box below.) Berlin participants also examined the relationships between the COP

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***It is now apparent...that climate change will be an increasingly important UN program and a major initiative for the Clinton administration.***

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and the Intergovernmental Panel on Climate Change (IPCC), the role of the two COP subsidiary bodies, intergovernmental workshops and technical

advisory panels, and a possible international industry workshop.

Regarding this last issue, industry has the know-how that will lead to development of technologies that could serve to reduce greenhouse gases in cost effective ways. Development of these technologies will be enhanced by the continuation of a free trade regime, the protection of intellectual property rights and the use of market forces. Therefore, the GCC and others will be defining industry's role in any process for industry involvement on technology issues.

For those who have observed the ongoing climate negotiations, it is now apparent, with the establishment of new worldwide structures, that climate change will be an increasingly important UN program and a major initiative for the Clinton administration. Perhaps that was the real Berlin Mandate. ●

### ***The Climate Technology Initiative:***

This program, originally recommended by the Germans and Japanese, will be administered on an international basis by the OECD's IEA. Since Berlin, this Paris-based group has already hosted a major meeting and discussed the CTI concept at a recent Ministerial conference chaired by US Secretary of Energy Hazel O'Leary. While suggesting the launching of new international clearinghouses, several other initiatives contained in the latest version of the CTI have drawn US industry's concern, including: vague references to "climate friendly technologies" which could lead to government attempts to pick technology "winners and losers," the mention of a contact group — consisting of the Netherlands, France, Germany and Japan — to design a proposal for collaboration on technology to reduce non-CO<sub>2</sub> greenhouse gases and a section on "enhancing markets" for emerging technologies.

### ***Joint Implementation:***

Industry entered the COP-1 negotiations hoping to produce a broad and flexible pilot program open to all countries. If all parties, including developing countries, could gain experience and a better understanding in a reasonably short period of time, of how Joint Implementation projects might work, a firm basis could be established for future activities. Therefore, it was surprising to learn on the last day of the negotiations that the COP would "take a conclusive decision on the pilot phase and the progression beyond that, no later than the end of the present decade." This is a far cry from concluding the pilot phase at the same time as the review of the adequacy of commitments process (which is supposed to conclude "as early as possible in 1997"), and could mean that JI will not receive serious consideration by industry for the next four or five years. The agreement reached in Berlin kept the concept of Joint Implementation on the table, but industry interest in these programs has diminished somewhat, at least temporarily.



## SCIENCE FACTS "PASSPORT" NOW AVAILABLE FROM GCC

**T**he Intergovernmental Panel on Climate Change, the UN. body charged with evaluating and tracking climate science, has concluded that "it is still not possible to attribute any or all of the warming of the last century to greenhouse gas-induced climate change."

It's a fact, and it's included in a pocket-sized *Passport to the Facts* published by the Global Climate Coalition. This reader is a quick reference and a valuable guide to essential information about climate change.

"Early climate models predicted that during the past 15 years greenhouse emissions should have led to an increase in global temperatures of 0.3 to 0.5 degrees Celsius. However, highly accurate satellite temperature readings (analyzed by the U.S. National Aeronautics and Space

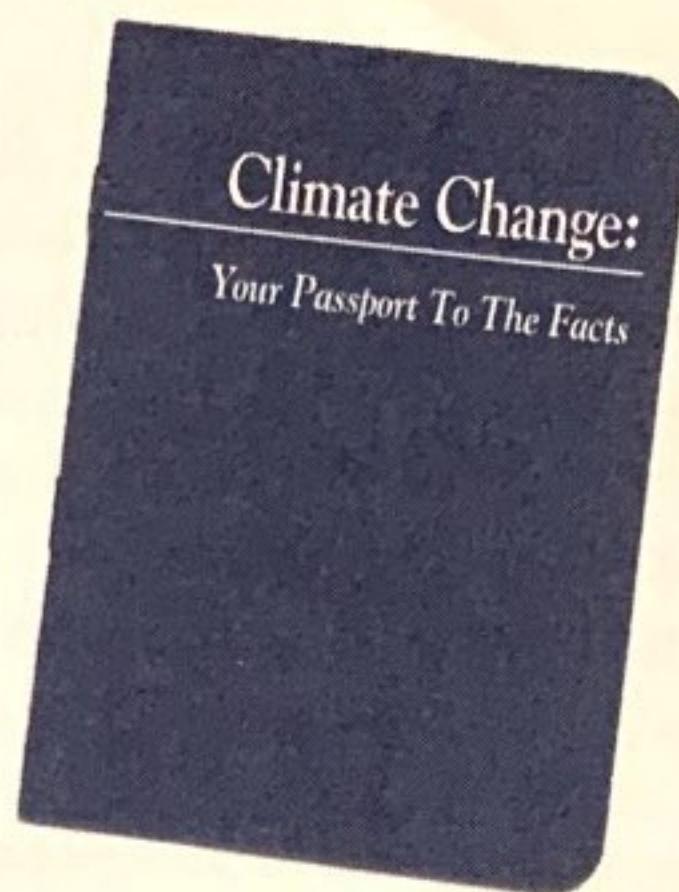
Administration) show no increase in global average temperatures during this period."

The guide looks at everything from the controversy over computer climate models to extreme weather events and emissions reductions.

A useful glossary of terms is also included.

For a copy of the publication, write to:

**Global Climate Coalition**  
1331 Pennsylvania Avenue, NW  
Suite 1500 North Tower  
Washington, DC 20004-1703



## ON THE HORIZON: THE HEALTH AGENDA LOOKS TO CLIMATE CHANGE

**A** recent warning that "global warming" may be the cause of a resurgence in infectious diseases has been questioned by many parts of the scientific community.

As reported in the March 6 issue of *The Boston Globe*, Dr. Paul Epstein of the Harvard School of Public Health and head of a working group on new and resurgent diseases, contends: "If tropical weather is expanding, it means that tropical disease will expand."

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*"Dr. La Montagnac . . . is skeptical about any link between infectious diseases and global warming."*

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However, Robert Shope, an epidemiologist at Yale University, disagrees. According to the news account, Shope believes "it's speculation to say that the warming we've had recently has caused the outbreaks."

Dr. John La Montagnac, a director at the National Institute of Allergy and Infectious Diseases in Washington, DC, is also skeptical about any link between infectious diseases and global warming. He believes that social and medical factors, including poverty, mass human migration and the growing ineffectiveness of antibiotics and pesticides are responsible for the increase of infectious disease. "That's still a very speculative area of investigation," he said of Epstein's contentions.

In addition, the underlying basis for Dr. Epstein's concerns about the spread of infectious diseases is being called into serious question. Many scientists view the climate system models used for predicting climate change as deficient. Brian Wynne and Simon Sackley of the Centre of the Study of Environmental Change at Lancaster University, England noted last September in the British publication *The Globe* that "the role of these vastly complex, cumbersome and expensive kinds of models is riddled with a crucial ambiguity."

## ICEBERG DETACHMENT: A NATURAL OCCURRENCE

**T**he detachment of an iceberg from the Antarctic Peninsula, which was greeted with alarm by some scientists who pointed to the event as a consequence of global warming, now appears to have been a natural occurrence.

A chunk of ice measuring 48 miles by 22 miles broke away from the Larsen Ice Shelf, which forms a large portion of the peninsula's east coast.

Fears that the event resulted from enhanced warming were dampened by Dr. Jo Jacka, an Australian Antarctic division glaciologist. The Australia AP (2/28) reported that Dr. Jacka judged the detachment to be a natural occurrence, not an indicator of global warming. "If the rate of these types of icebergs breaking off increases, then that could be seen as a sign of global warming."

The likelihood of drastic warming in the Antarctic and Arctic regions has been disputed by many scientists who

doubt the reliability of computer models used to predict this phenomenon. Recent data, for example, shows that the Arctic region is growing colder, not warmer. According to *The Global Warming Experiment* published by the George C. Marshall Institute, "Analysis of 27,000 temperature profiles, measured by balloons launched from Russian stations on the Arctic ice and by dropsondes (meteorological instrument package with a radio transmitter dropped by parachute) from U.S. weather reconnaissance aircraft, yields an average cooling trend of -0.37 degrees Celsius per decade for the 40-year period 1950-1990, and a decrease in Arctic temperature of -1.5 degrees Celsius during the 40-year period."

The accompanying figure compares the greenhouse predictions for Arctic warming with satellite measurements of Arctic temperatures taken the past 16 years. ●



## Industry Initiatives

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### New Technology Could Revolutionize Clean Air Act Compliance

Engelhard Corporation has developed a catalyst system that cleans pollutants already in the air. This PremAir technology employs a platinum-based catalytic coating that is applied to a car's radiator and air conditioning condenser. As air passes across the coating, the catalysts convert ozone into oxygen, and carbon monoxide into carbon dioxide, thus minimizing the impact of tailpipe emissions on air quality.

Tests conducted on the clean air catalyst system in Southern California show that the system could have a tremendous impact on reducing ozone. Low emission vehicles equipped with the catalyst system and the radiator fan produced the same results as an electric car, which is considered a zero emission vehicle. The tests also show that the same car would produce environmental benefits that exceed the use of three ultra-low emission vehicles.

Engelhard has initiated a joint project with the Ford Motor Company to further develop the system. The technology will be tested in Ford vehicles and developed for application across the company's

fleet. Engelhard has expressed hope that the technology can be deployed through a demonstration fleet this year and made available for widespread application by the 1998 model year.

Industry sources believe the PremAir technology could provide states and auto makers with a way to meet Clean Air Act compliance requirements. Officials at EPA have reported that the new catalyst could reduce the costs associated with compliance.

For further information contact: Denise Lenci (908) 205-6246.

### Venture Capital Fund Ready to Invest in Efficient Electric and Renewable Technologies

To promote energy efficiency and reduce greenhouse gases, nine electric utilities have joined to support a new venture capital fund dedicated to invest-

ing in efficient electric and renewable technologies in the United States and overseas.

The EnviroTech Investment Fund was organized by the Edison Electric Institute and is managed by Advent International Corporation. The fund has a broad investment charter, including:

- the alternative and renewable energy arena;
- alternative energy for transportation;
- environmental waste treatment; and
- electric power generation.

Advent expects to make 25 to 30 investments in the Fund, and estimates that one third of the investments will be in Europe and the Pacific Rim.

For further information contact: Gloria Quinn (202) 508-5659.

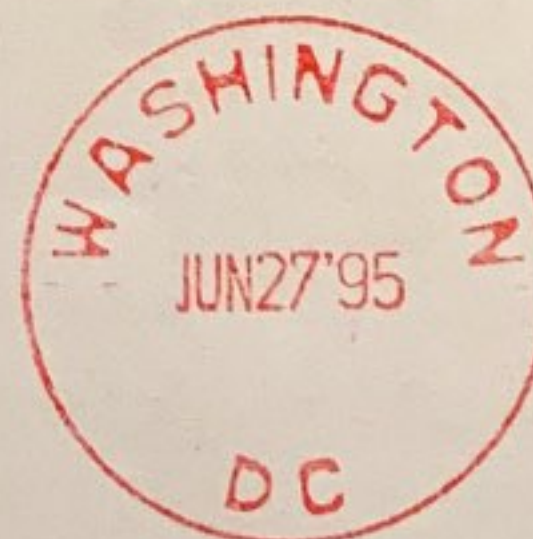
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