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Folder ID Number: 13737-005

Folder Title:
Clean Air Act Signing 11/15/90 [OA 8318]

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THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release November 15, 1990

FACT SHEET:

THE CLEAN AIR ACT AMENDMENTS OF 1990

President Bush's Clean Air Act proposal of July 1989 provided the leadership to break a 13 year legislative deadlock on clean air amendments. In particular, the President's innovative market-based approaches to environmental protection provided the key to overcome regional disagreement and enact a bill providing needed environmental protection while ensuring a growing economy. The President's proposal had three central features:

- Provisions to bring all cities into attainment with the National Ambient Air Quality Standards (NAAQS) for ozone (smog), carbon monoxide, and other pollutants within a reasonable time frame.

- An acid rain control program that would: 1) achieve a permanent reduction in sulfur dioxide emissions of 10 million tons, by the year 2000, 2) allow utilities the freedom to choose how to achieve the required reductions, and 3) authorize utilities to buy and sell emission allowances to ensure that the reductions are implemented in the most cost-effective manner.

- A program to reduce industrial emissions of hazardous air pollutants (air toxics) 75-90 percent in the first phase through technology-based controls.

As a result of the President's proposal, the stalemate that denied cleaner air to the American people has now been broken. The legislation approved today by President Bush contains all the central features of the June 1989 proposal and will achieve all its environmental goals.

ACID RAIN

Background

"Acid rain" is formed when sulfur dioxide and nitrogen oxide emissions undergo a chemical change in the atmosphere and return to the earth. About 20 millions tons of sulfur dioxide are emitted annually in the U.S., three-quarters from the burning of fossil fuels by electric utilities. Acid rain causes damage to lakes, forests, and buildings, and contributes to reduced visibility.

Highlights

The bill establishes a two-Phase utility powerplant program for reducing sulfur dioxide emissions by 10 million tons from 1980 levels. The first phase begins in 1995 and the second phase in 2000. Each source will receive "allowances" equal to the number of tons of sulfur dioxide it is permitted to emit. If a source reduces its emissions more than is required, it can sell the extra allowances to another source, thus allowing the other source to increase emissions while remaining in compliance. The bill also includes a 2 million ton reduction from year 2000 projected levels in emissions of nitrogen oxides.

NONATTAINMENT OF NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

Background

The Environmental Protection Agency (EPA) has established ambient air quality standards for various pollutants such as ozone, carbon monoxide, and particulate matter. These standards are set at levels needed to protect the public health with an ample margin of safety, irrespective of cost, and form the benchmark for emission standards from individual sources of these pollutants. Almost all major U.S. cities are in nonattainment for one or more of the NAAQS. The most widespread and intractable pollutant is ozone, which is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx) react in the presence of sunlight.

Highlights

For ozone, the bill sorts urban areas into categories ("Marginal", "Moderate", "Serious", "Severe", and "Extreme"), according to the severity of their ozone problem. Deadlines ranging from 3 years for "Marginal" areas to 20 years for "Extreme" areas (Los Angeles) are established for each category.

Specific pollution control measures, such as vapor recovery controls on gasoline pumps and vehicle inspection programs, are also mandated for each category. The more severe the air quality problem, the more control measures a nonattainment area is required to implement. State or local governments in nonattainment areas are responsible for identifying and implementing additional control measures if the mandated measures do not result in sufficient progress toward attainment.

Besides the control measures mandated for specific nonattainment categories, the bill requires EPA to promulgate nationwide regulations designed to reduce emissions of VOCs. These regulations address emissions limitations for various sources, such as

traffic paint, consumer solvents, and marine vessel loading operations.

In parallel with its ozone nonattainment provisions, the bill also establishes similar categories, deadlines, and control requirements for cities in nonattainment with national ambient standards for carbon monoxide and particulate matter.

MOBILE SOURCES

Background

Emissions of pollutants from motor vehicles have been decreasing due to implementation of current Clean Air Act requirements. Without further action to limit mobile source emissions, however, this trend would soon begin to reverse itself. The number of vehicle miles travelled is expected to increase 60 percent by the year 2005 as a result of general population growth and increased vehicle use. Although the U.S. has successfully phased out lead from fuels and sharply reduced its ambient levels, EPA generally has not focused to the same extent on motor fuels as they have on vehicles, despite the significant contribution of fuels to smog formation and to emissions of toxic air pollutants.

Highlights

The bill requires new restrictions on tailpipe emissions of hydrocarbons, carbon monoxide (CO), and nitrogen oxides from new vehicles beginning with the 1994 model year (Tier I). These standards will reduce tailpipe emissions by about 40% from current levels. If the EPA Administrator determines that further reductions are necessary, technologically feasible, and cost effective, a more stringent set of Tier II emissions limitations will be required in the 2003 to 2006 time frame. Standards requiring automobile manufacturers to install "onboard" canisters to recover emissions of gasoline vapor will be set after consultation on safety issues with the Secretary of Transportation.

EPA is required to promulgate regulations setting standards for carbon monoxide emissions from vehicles operating at cold temperatures. A Tier II cold CO standard will be triggered for the 2002 model year if six cities are still in nonattainment with the standard in 1997.

The bill requires emissions reductions from fuels as well as vehicles. More stringent controls on gasoline volatility and the sulfur content of diesel fuel are required. New programs requiring cleaner "reformulated" gasoline are required in the nine cities with the worst ozone nonattainment problems beginning in 1995. CO nonattainment areas are required to sell

oxygenated fuels such as gasohol during the winter months starting in 1992.

In response to the President's groundbreaking proposals to promote cleaner alternative fuels, a pilot alternative fuels program is established for California and a fleet vehicle program is established for the 26 worst ozone cities. The California pilot program will ensure that large numbers of cleaner vehicles will be available in the nation's largest automobile market. By 1999, 300,000 clean-fuel vehicles must be produced, sold, and distributed in the state and California is required to ensure that clean alternative fuels are available to operate the vehicles. In the 26 worst ozone cities, centrally fueled fleets of ten or more vehicles are required to meet California emissions standards by 1998.

AIR TOXICS

Background

Air toxics are pollutants that can cause mortality or serious illness. Current law requires that air toxics standards protect the public health with an ample margin of safety. Because this margin has been difficult to define and has been the subject of continued litigation, EPA has issued regulations for only seven pollutants. Air toxics are estimated to contribute to 1500-3000 fatal cancers per year.

Highlights

The new Clean Air Act contains provisions to reduce air toxics emissions by over 75% within 10 years of enactment largely through a new technology standard. The bill includes a list of 189 chemicals. EPA is required to publish a list of industrial source categories for these chemicals and then to regulate each category within ten years. Sources will be required to install the Maximum Available Control Technology (MACT) and, if necessary, to later reduce emissions even further if there remains a significant residual risk after installation of MACT. EPA must promulgate MACT standards for 41 source categories within the first two years after enactment.

The Agency must also set standards for "area sources" (dry cleaners, gas stations) to assure that ninety percent of the emissions of the thirty most serious area source pollutants are regulated. However, coke ovens that achieve a stringent level of control may qualify for a compliance date extension and utility emissions of air toxics would only be regulated if an EPA study finds such regulation to be necessary. New requirements are also established for municipal waste incinerators and for facilities

handling chemicals whose accidental release would threaten public health or the environment.

PERMITS AND ENFORCEMENT

Permits

Each major pollution source will be required to have an operating permit that specifies its compliance requirements. Permits will be for a fixed term, not to exceed five years. States must collect fees from permitees to cover the costs of the permit program. EPA is given authority to review and, if necessary, veto permits to assure that they comply with the law. Permittees cannot be sued for violating EPA rules if those rules are reflected in the permit.

Enforcement

The bill contains enhanced enforcement and citizen suit provisions that bring the Clean Air Act up to date with the other, more recently amended major environmental statutes. These include: the elevation of certain criminal penalties from misdemeanors to felonies, enhancement of civil and administrative authorities, and revision of the citizen suit provisions.

STRATOSPHERIC OZONE AND GLOBAL CLIMATE PROTECTION

Background

Part B of the Clean Air Act currently provides broad authority for EPA to regulate ozone-depleting substances. EPA has issued regulations under the Clean Air Act that mirror the requirements of an international agreement, the Montreal Protocol on Substances That Deplete the Ozone Layer.

Highlights

The bill would go somewhat beyond the Montreal Protocol in its restrictions on ozone-depleting substances. It requires interim reductions in the phaseout of chlorofluorocarbons (CFCs), halons, and methyl chloroform and, unlike the Protocol, includes a production phaseout for hydrochlorofluorocarbons (HCFCs) beginning in the year 2015, with production eliminated by 2030. The bill also allows Federal preemption of State/local requirements for two years and mandates the lowest achievable level of use and emissions. A national recycling program is established for CFCs used in refrigerators and air conditioners.

from
Deb Amend

THE CLEAN AIR ACT AMENDMENTS OF 1990
TALKING POINTS

- THIS LANDMARK CLEAN AIR ACT COULD NOT HAVE BEEN PASSED WITHOUT THE LEADERSHIP OF PRESIDENT BUSH.

  * It was the President's proposal of July 1989 that broke the logjam and provided the basis for the bill that was eventually enacted.
  * Congress had not acted on Clean Air for 13 years. In each of the last several sessions, Congress has tried and failed to pass a bill.
  * The President's bill cut through intense regional disagreement and provided the coalition needed for passage.

- THE CLEAN AIR ACT OF 1990 IS THE MOST SIGNIFICANT AIR POLLUTION LEGISLATION IN AMERICAN HISTORY.

  * The Clean Air bill will reduce sulfur dioxide emissions by 10 million tons, nitrogen oxide emissions by 2 million tons, air toxic emissions by 75 to 90%, and smog-causing volatile organic compound emissions by 40%.
  * In total, the Clean Air Act will remove 56 billion pounds of pollution per year from the nation's air -- **that's 224 pounds for every man, woman and child in America.**
  * The benefits of this bill will affect virtually every American.
  * The Clean Air Act marks a new era in environmental legislation; the bill is both more realistic and more effective than previous environmental laws.
  * The effect of this bill will be: cleaner cars, cleaner power plants, cleaner factories and cleaner fuels for generations to come.

- THE CLEAN AIR ACT IS A MAJOR DOMESTIC POLICY ACHIEVEMENT FOR PRESIDENT BUSH.

  * Ever since he was elected to Congress in 1966 President Bush has shown his commitment to protecting the environment.
  * In his campaign for the Presidency, and in his first address to a Joint Session of Congress, the President promised to propose a strong clean air bill -- and he delivered.
  * It was the President who outlined a new, innovative approach; who submitted detailed legislation to the Congress; who negotiated an agreement with the Senate leadership to win passage in the Senate; and who kept the heat on the House-Senate conferees to ensure that a final bill was passed before Congress adjourned.
  * The final bill follows the model which the President proposed: it includes the nation's first-ever program to curb acid rain, a market-based emissions trading system, a plan to cut air toxins by at least 75%, and plans for cleaner cars and cleaner fuels.

THE CLEAN AIR ACT AMENDMENTS OF 1990

Talking Points

Gracy Nov! 91

- THIS LANDMARK CLEAN AIR ACT COULD NOT HAVE BEEN PASSED WITHOUT THE LEADERSHIP OF PRESIDENT BUSH
  - It was the President's proposal of July 1989 that broke the logjam and provided the basis for the bill that was eventually enacted.
  - Congress had not acted on Clean Air for 13 years. In each of the last several sessions, Congress had tried and failed to pass a bill.
  - The President's bill cut through intense regional disagreement and provided the coalition needed for passage.

- IN ITS SIZE AND SCOPE, PASSAGE OF THE CLEAN AIR ACT OF 1990 IS THE BIGGEST ENVIRONMENTAL ACHIEVEMENT IN AMERICAN HISTORY
  - The Clean Air bill will reduce sulfur dioxide emissions by 10 million tons, nitrogen oxide emissions by 2 million tons, air toxics emissions by 75 to 90%, and smog-causing volatile organic compound emissions by 40%.
  - In total, the Clean Air Act will remove 56 billion pounds of pollution per year from the nation's air -- *that's 224 pounds for every man, woman, and child in America.*
  - The size and scope of this bill are larger than Superfund, the Clean Water Act, or any environmental legislation ever passed.
  - The benefits of this bill will affect virtually every American.
  - The Clean Air Act marks a new era in environmental legislation; the bill is both more realistic and more effective than previous environmental laws.
  - The effect of this bill will be cleaner cars, cleaner power plants, cleaner factories and cleaner fuels for generations to come.

- THE CLEAN AIR ACT IS A CROWNING DOMESTIC POLICY ACHIEVEMENT FOR PRESIDENT BUSH
  - Ever since he was elected to Congress in 1966, President Bush has shown his commitment to protecting the environment.
  - In his campaign for the Presidency, and in his first address to a Joint Session of Congress, the President promised to propose a strong clean air bill -- *and he delivered.*
  - It was the President who outlined a new, innovative proposal; who submitted detailed legislation to the Congress; who negotiated an agreement with the Senate leadership to win passage in the Senate; and who kept the heat on the House-Senate conferees to ensure that a final bill was passed before Congress adjourned.
  - The final bill is almost identical to that which the President proposed: it includes the nation's first ever program to curb acid rain, a market-based emissions trading system, a plan to cut air toxics by up to 90% using new technologies, and plans for cleaner cars and cleaner fuels. *The Clean Air Act is a triumph for the President.*

8OTH STORY of Level 1 printed in FULL format.

The New York Times

September 14, 1990, Friday, Late Edition - Final

SECTION: Section D; Page 3, Column 4; Financial Desk

LENGTH: 711 words

HEADLINE: Clean Air Bill Is Called an Oil Saver

BYLINE: By PHILIP SHABECOFF, Special to The New York Times

DATELINE: WASHINGTON, Sept. 13

BODY:

The Environmental Protection Agency said today that pending legislation to strengthen the Clean Air Act would substantially reduce the nation's dependence on foreign oil.

According to an analysis made available by the E.P.A.'s Administrator, William K. Reilly, the requirements and incentives in the clean air bill for switching from oil to cleaner-burning fuels would save the United States at least 800,000 to a million barrels of oil a day in the next decade.

That is considerably more than the 606,000 barrels of oil the nation was importing each day from Iraq and Kuwait before the invasion.

Some industrial groups dispute the savings in oil consumption that could result from the clean air act. But environmentalists and other supporters of the bill said the E.P.A. findings could help speed Congressional action on it.

Both houses of Congress have passed the bill and differences are being ironed out in a conference. But work in conference has been slow and there has been concern that an agreement would not be reached before Congress adjourns at the end of October.

''With American lives at stake in the Middle East, even the most outrageous industrial lobbyist could not oppose reducing our nation's addiction to crude oil,'' said Jay D. Hair, president of the National Wildlife Federation, the nation's biggest conservation group. Mr. Hair said the improvements in the Clean Air Act proposed by President Bush ''are exactly what the American people want.''

R. G. Ensz, a spokesman for the American Petroleum Institute, an oil industry trade group that opposes some aspects of the clean air bill, said his group had not seen the analysis. ''Frankly, we would be surprised if the Clean Air Act resulted in improved energy security,'' he said.

Estimates of the economic cost of the legislation range up to $20 billion for such things as scrubbers to reduce sulfur emmissions from electric utilities and new controls on automobile tail pipe emissions. It is also expected to reduce costs of illnesses caused by air pollution.

Another bill before the Senate that would cut domestic oil consumption requires that autos achieve a fuel efficiency of 40 miles a gallon. It would save the nation another 2.8 million barrels of oil a day by 2001, said Senator Richard H. Bryan, Democrat of Nevada and author of the legislation.

The Bush Administration, however, opposes the fuel effiency standards because, Mr. Reilly said, they would create other problems, like reducing the competitiveness of American-made cars and delaying the introduction of newer, cleaner cars.

Despite the expected savings in oil consumption as a result of the Clean Air Act, Mr. Reilly said that the Administration, in addition to the bill, continued to favor the development of new domestic sources of oil, including the Arctic National Wildlife Refuge.

Environmentalists strongly oppose drilling in the refuge, saying that the amount of oil there is not worth destroying the wilderness.

But Mr. Reilly said the oil there could be developed without harming wildlife. ''Our energy future has to include both conservation and development'' he said during a meeting with New York Times reporters and editors today.

Effect of Cleaner Fuels

According to the E.P.A. analysis of the pending clean air bill, new provisions requiring nine cities with particularly dirty air to mandate that cars burn cleaner fuels would reduce oil use by 500,000 barrels a day.

In addition, the requirement in the legislation that seeks to reduce the pollution that causes acid rain would probably induce many electric utilities now burning oil to switch to natural gas. That could save 300,000 to 500,000 barrels of oil a day, according to the analysis, which was prepared for the environmental agency by ICF Resources Inc., a Fairfax, Va., consulting firm.

Mr. Reilly said that requirements of the bill that would crack down on tailpipe emissions and gasoline vapors that escape from the engine or during refueling would produce additional oil savings because pollution is really wasted fuel.

An analysis done by the State and Territorial Air Pollution Program Officers found that the fuel -switching provisions of the clean air bill could save the country up to 2.4 million barrels a day.

SUBJECT: AIR POLLUTION; OIL (PETROLEUM) AND GASOLINE; LAW AND LEGISLATION; CLEAN AIR ACT

ORGANIZATION: ENVIRONMENTAL PROTECTION AGENCY (EPA)

NAME: REILLY, WILLIAM K (ADMR); SHABECOFF, PHILIP

GEOGRAPHIC: UNITED STATES

516 x1204

November 1, 1990

[DAIS]
Gallagher
Fogaman
Gov Deuk
Sen Wilson
Dr. Terry
Martin
Rose Works

MEMORANDUM

TO: MARK LANGE

FROM: CAROLYN CAWLEY

RE: CLEAN AIR EVENT

Date and Time: Saturday, November 3, 1990
10:00 a.m.

Place: (PROP 220) California Lutheran College campus
Thousand Oaks, CA

Attendees: * Possibly over 1000
College students, Wilson supporters, enviros, community, etc.

4:20 11/1 Mel - "125" (enviro, bus., students)

Size: 5-7 MIN MAX

Acknowledgements: John Schmitz thought this will prove to be politically sensitive, so he and Boyden will be sending you a memo with acknowledgements tomorrow.

POTUS will plant a tree.

~~There may several alternative fuel vehicles on site for the public to see and ride in.~~

Counsels office and Rosenbergs office are currently crashing to compare the actual Clean Air Bill with the Presidents proposals made last June -- to see what we actually got. Schmitz says to review the June speech and use the same concepts -- the 3 main pillars of air pollution (smog, acid rain, and toxic air pollution).

The first two, smog and acid rain, are the main issues to discuss. On emissions: POTUS is widely credited with a bold, new, market oriented plan emissions trading plan to buffer the cost of reducing toxic emissions. On smog: the introduction of the alternative fuels program marks the first time ever that both the car and the fuel have been the focus. Today, (11/1) a new alternative fuel station opened in D.C. -- right down Pennsylvania Avenue.

This is what he asked for & prom. Am. people -- free market we got. A great beginning

In commem of the great moment in Am. hist. I plant a tree [A PINE] Blue Spruce

what it was (old Nest)

* NOT DRIVING CARS - TREE PLANTING AFTERWARD

13TH STORY of Level 1 printed in FULL format.

The New York Times

July 25, 1990, Wednesday, Late Edition - Final

SECTION: Section D; Page 3, Column 1; Financial Desk

LENGTH: 344 words

HEADLINE: COMPANY NEWS;
G.M. to Sell Trucks Fueled by Natural Gas

BYLINE: By THOMAS C. HAYES, Special to The New York Times

DATELINE: HOUSTON, July 24

BODY:

The General Motors Corporation today entered the market for vehicles powered by cleaner-burning compressed natural gas.

The company said it would build, issue warranties and sell at least 1,000 of its GMC Sierra pickup trucks next year with V-8 engines modified to run on natural gas.

Congress is expected to mandate that commercial and public operators of truck, bus and auto fleets begin converting to vehicles powered by alternative fuels like compressed natural gas, methanol and ethanol as early as 1994. The final version of the Clean Air Act is expected to be completed before the November election.

William G. Rosenberg, assistant administrator for the air and radiation section of the Environmental Protection Agency, applauded the decision by General Motors but said it was not a surprise. He noted that United Parcel Service said earlier this month that it would convert 2,700 of its gasoline -powered trucks in Southern California to compressed natural gas by 1995.

Richard A. Pennell, a truck manufacturing executive for G.M.'s GMC division, said the vehicles would be made at a GMC truck plant in Pontiac, Mich., and would have a range of approximately 200 miles between refuelings.

G.M. will subcontract work to replace gasoline -burning engines on the selected 1991 models and will conduct its own tests to certify and issue warranties for the new models. He declined to say whether G.M. would charge more for the compressed natural gas models. Current models of the Sierra pickup are priced at $14,000.

A group of nine natural- gas utilities in California, Texas and Colorado will contribute $935,000 to G.M. to cover most of the auto maker's warranty costs. Many of the utilities have committed to buying the trucks.

''This is the biggest commitment by any auto manufacturer so far,'' said Jeffrey M. Seisler, executive director of the Natural Gas Vehicle Coalition, a lobbying group in Washington.

November 2, 1990

MEMORANDUM

TO: CHRISS WINSTON
MARK LANGE

FROM: CAROLYN CAWLEY

RE: CLEAN AIR COMMENTS

---

p.1/Heading:
The event is scheduled for 9:45 a.m.

p.1/Acknowledgements:
Add: EPA Administrator Bill Reilly
Ms. Stacia Russ {roos}, Student Body President

p.1/para.4:
National Tree Trust Foundation

p.2/para.5:
[John Schmitz, Counsel's Office:
--"...cut the emissions that cause acid rain half by 10 million tons. We will do so with a bold, innovative emissions trading program that will allow us to achieve emission reductions at a fraction of the cost."
--Also, include a nod to the Environmental Defense Fund for their strong support of the Administration on this issue.]

p.3/para.1:
"...The single most significant environmental accomplishment in this nation's history."

Tom Kiernan, EPA Asst. Admin. for Air: He thinks this is overstated and would prefer: "the single most significant environmental legislation in this nation's history."

John Schmitz: He thinks it is OK as is and would like us to use it.

Your call.

p.3/para.3:
"...800,000 barrels"
See Holli Williamson's comments.

p.4/para.1:

Re Boyden:

Amoco opened a station in Washington with compressed natural gas and a reformulated gasoline.

Arco, Marathon, Exxon and others are also offering cleaner fuels.

The electric vehicles from Ford are not out yet; should say that we are seeing the CNG vehicles from GM, flexible fueled vehicles from GM and Ford, and look forward to Ford's electric vehicles.

Carolyn's Clean Air Changes

p.1 - Heading
Event is scheduled for 9:45 a.m.

p.1 - Acknowledgements
Add EPA Administrator Bill Reilly

p.3 - line 1
-- on a scale never before attempted?
— on a scale never attempted before?
-- largest scale ever attempted?

p.4, line 2
delete Exxon.

p.1, #4
--- National Tree Trust Foundation -

Clean Air Changes II

① p. 3, # 1

--- "The single most significant environmental accomplishment in this nation's history."

Tom Kiernan – EPA Asst Admin. for Air : he thinks it's overstated & would prefer "the single most significant env'tl legislation in this nation's history."

John Schmitz – Counsel's office : he thinks it's OK as is.

Your call.

② p. 3, # 3

-- "800,000 barrels"

John Schmitz – Counsel's office :

800,000 is EPA's number ; DOE doesn't agree. There's been a lot of controversy. Schmitz negotiated language w/ DOE awhile ago, and suggests we use it :

"500,000 barrels saved from the acid rain provisions alone, and with the encouragement of the use of alternative fuels, we can look forward to long term energy security & independence from foreign oil."

③ p. 4, # 1

Add "Exxon" in line 2.

May want to change sentence 2 to read:

"Arco, Marathon, Exxon & others are

(3) p. 4, ¶ 1

Add "EXXON".

Re Boyden:

"--- Amoco opened a station in Washington with compressed natural gas and a reformulated gasoline."

"Arco, Marathon, & Exxon and others are also offering cleaner fuels."

"We're seeing CNG vehicles from GM".

The Electric vehicles from Ford aren't out yet. °° Say were seeing the CNG vehicles from GM, flexible fueled vehicles from GM & Ford. Look forward to Ford's electric vehicles.

Fax # 456-6218

90 OCT 31 P4:53

OAR/IMMEDIATE OFFICE
Facsimile Cover Sheet

Facsimile No. (202) 475-7155
Confirmation No. (202) 382-7400

TO: Carolyn Cowles

OFFICE:

TELEPHONE: 456-7750

DATE: 10/31/90 **NO. OF PAGES** 4

FROM: Tom Kiernan - EPA
382-7400

MESSAGE/INSTRUCTIONS:

Assistant Administrator
for Air and Radiation
Washington, D.C. 20460

attached are some ideas per our discussion of Dave Rement this morning. Please give Bill or myself a call for more details or other assistance.

Thx

Tom Kiernan

CLEAN AIR ACT SIGNING ANNOUNCEMENT

Event Themes

Goals:
- o Announce commitment to sign the Clean Air Act.
- o Recap the environmental leadership by the President, the Republican Party, and California.
- o Show how Presidential leadership on the Clean Air Act has already had an impact on cleaning the environment.

Staging:
- o Use clean fueled vehicles to transport participants to the event.
- o Vehicles should use the following fuels: CNG, ethanol, methanol, reformulated gasoline, and electricity.
- o President test drives multiple vehicles, perhaps commenting on the differences he notices in driving each vehicles.

Themes:
- o In following through on his campaign commitment on the Clean Air Act, the President challenged Congress and the American people to meet the clean air standards that are necessary for the health of Americans and our natural ecosystems.
- o As a result of that challenge, both the business community and the American public have responded with the initiative and ingenuity that have made this country great.
- o This new environmental era, exemplified by the vehicles and fuels used today, has the political, business and consumer leaders working together, without laws or mandates, to obtain environmental improvements, not just in the years to come, but today!
- o Examples of these environmental improvement already working include:
  - Cleaner reformulated gasolines form Amoco, Arco, Marathon and others.
  - Growth in market share for these cleaner reformulations as consumers flock to buy them.
  - Cleaner CNG cars from GM, electric vehicles from Ford, and Flexible-Fueled vehicles from both.
  - Commitments by corporations for the early phase-out of CFC's.
  - Commitment from CEO's of the worst toxic manufacturing sites to voluntarily reduce their emissions by 78% ?? on average.

- Consumers flocking to buy the cleaner gasolines.

o The President jumpstarted this process. By boldly leading the political process on passing the Clean Air Act, he convinced our businesses and consumers to start living cleaner lives today!

o As the political leader, he:

- Committed to introduce a Clean Air Act reauthorization,
- Followed through by introducing that bill,
- Convinced Congress to pursue innovative an acid rain trading program and cleaner automotive and utility fuels,
- Negotiated with the Senate to ensure that we achieve our environmental and economic goals,
- Offered a breakthrough compromise during Conference to unravel that logjam, and
- Will sign this bill into law.

o The President has given Americans more than just Clean Air legislation. He has given them cleaner cars, cleaner fuels, cleaner factories today. Our children can start breathing easier today. And because of the President's Clean Air Act, our children's children can be assured that the air will keep getting cleaner.

(Lange/Cawley)
November 2, 1990
12:15 a.m.
[AIRBILL.DOC]

PRESIDENTIAL REMARKS: CLEAN AIR ENDORSEMENT & TREE PLANTING
CALIFORNIA LUTHERAN UNIVERSITY
THOUSAND OAKS, CALIFORNIA
SATURDAY, NOVEMBER 3, 1990
10:00 A.M. 9:45

Add: Bill Reilly (Mel)
Stacia Russ (Emily)
(Student Body President)

Thank you. [[Governor Deukmejian, Senator Wilson; Congressmen Gallegly and Lagomarsino... Dr. Jerry Martin. It's a pleasure to see these trees spread beneath a broad and peaceful sky, like -- yes, a thousand points of shade. **And in a few minutes, it's going to be a thousand and one.** \\\ ]]

Emily Mead x6252

I'm told the people of Thousand Oaks have invested over a hundred thousand dollars and countless hours in urban forestry management -- something every community in America can do.

OK-Emily

Trees mean greener cities and neighborhoods. God's greatest air and noise filters, providers of shade and rest and privacy, they save on cooling costs, and reduce urban smog. But more than that, trees create a sense of **community** in the people who plant them -- and a sense of **continuity** between generations.

Barry Anderson OMB-Dir.'s Off x 4630

That's why I'm so pleased this year's budget has funding to begin our ambitious national tree planting program, "America the Beautiful" -- along with support for the National Tree Trust. Foundation

I made a commitment, as a candidate for President, to preserve our environment. **I promised the American people we would break the stalemate that has hindered progress for clean air in this country for thirteen years.** \\\

CW & Tom Kiernan, EPA, Asst Admin. for Air 382-7400

So a year and a half ago, I gathered together leaders from

Clean Air Announcement 6-12-89

Clean Air Announcement 6-12-89

both parties; environmentalists; and industry leaders -- because I believed it was time for a new approach.

To make real progress for clean air, the old tradition of simple regulation wasn't the answer. **We'd have to take advantage of the innovation, energy, and ingenuity of every American** -- drawing local communities and the private sector into the cause. It was time for a new kind of environmentalism -- driven by the knowledge that a **sound ecology and a strong economy can coexist**.

So I challenged the Congress to work with me on clean air legislation of a completely different kind -- and they've been true to the architecture and spirit of that legislation.

Now, thanks to the support and efforts of leaders like Pete Wilson, [ ], we are on the verge of a major domestic victory for all Americans. As soon as the Congress gets me a bill, **I will sign landmark legislation for clean air.** \\\

Clean Air Act conclusions - TPs, p 1

It's efficient, effective legislation that will pull **56 billion pounds of pollution** from the air -- **224 pounds** for every man, woman, and child in America, **every day**.

p. 2

This clean air legislation will **cut the emissions that cause acid rain in half** -- by ten million tons. It will **cut the emissions that cause smog in our cities** -- so that by the end of this century, **over 100 U.S. major cities will have clean, healthy air.** It will **cut dangerous air toxic emissions by 90 percent.** And it **encourages widespread use of alternative fuels.**

p. 2

Campaign/ early Admin.

Two years ago, I was telling the nation of my commitment as an environmentalist. Now we can put it in perspective. We're

John Schmitz, Counsel's Office, x6611:
"And we will do so through a bold, innovative emissions trading program that will allow us to achieve emission reduction at a fraction of the cost."

Also, single out the EDF for its strong support of the Administration on this issue.

talking about conservation legislation on a scale that has never been attempted before. In its **size** and **scope** of pollution reduction, this isn't the most significant environmental accomplishment of this administration. **It's the single most significant environmental accomplishment in this nation's history.** \\\

Tom Kiernan – EPA – 382-7400

Kiernan: overstated. Call it 'legislation'.
Schmitz: OK as is. Use it.

And most important, it will work -- efficiently, at low cost -- because it's a bold new departure from the old contentious command and control tradition. It sets tough standards -- but then applies market-oriented strategies, **turning the efforts of industry to environmental advantage.**

Tom Kiernan, EPA, 382-7400 + bill conclusions, TP's on "Regulatory Reforms"

It breaks up regional stalemates and conflicts here at home -- and reaffirms U.S. leadership on environmental challenges around the world. Experts from Japan and Europe are already visiting to ask us how we did it. It's sound energy policy, promoting conservation in electric utilities. And it's an important step toward energy security -- promoting new diversity and competition in fuel sources, to reduce our dependence on foreign oil by **over 800 thousand barrels of oil a day**. \\\

John Schmitz – Counsel's office, x6611

But best of all, this legislation taps the remarkable energy and enthusiasm of local communities and American industry. It encourages creative programs around the country -- especially **alternative fuel** efforts like those of Governor Deukmejian, Secretary Sharpless, and Chuck Imbrecht here in California.

Chuck Imbrecht, chairman, CA Energy Commission (916) 324-3326

Schmitz: 800,000 is EPA's #; DOE does not agree. He has negotiated language w/ DOE & suggests we use it: 500,000 barrels from the acid rain provisions alone. This + the encouragement of the use of alt. fuels means long term energy security & independence from foreign oil.

In the short time since we issued the clean air challenge, we've seen a revolution in thinking about fuels. **The time is right. The people are ready. And industry is responding.**

Just two days ago, Amoco opened a station in Washington with a reformulated gasoline. Arco, Marathon, Exxon and others are all offering cleaner fuels. We're seeing compressed natural gas cars from GM, electric vehicles from Ford, and flexible-fueled vehicles from both. [[Look, I'm from Texas. I understand the cultural importance of the barbecue. So let me tell you, I want to make California safe for outdoor cooking.]]

We're on the verge of a new era for clean air. So to commemorate a milestone in America's environmental history, today we'll plant a tree. Some may see it as purely symbolic -- but I think it's something more.

What we celebrate this day has roots running deeper than law. It is potential for new progress, a planting with a daily harvest, a promise lasting longer than our lifetimes.

With what we do to clear the air today -- for all now living, for all our kids, and those yet to live and love this world -- we celebrate a chance to reconfirm the environmental ethic in America -- and reaffirm what God through nature gives to us.

[[And now, let's let this tree start growing...]]

# # #

(Lange/Cawley)
November 2, 1990
12:15 a.m.
[AIRBILL.DOC]

PRESIDENTIAL REMARKS: CLEAN AIR ENDORSEMENT & TREE PLANTING
CALIFORNIA LUTHERAN UNIVERSITY
THOUSAND OAKS, CALIFORNIA
SATURDAY, NOVEMBER 3, 1990
10:00 A.M.

Thank you. [[Governor Deukmejian, Senator Wilson; Congressmen Gallegly and Lagomarsino... Dr. Jerry Martin. It's a pleasure to see these trees spread beneath a broad and peaceful sky, like -- yes, a thousand points of shade. **And in a few minutes, it's going to be a thousand and one.** \\\ ]]

I'm told the people of Thousand Oaks have invested over a hundred thousand dollars and countless hours in urban forestry management -- something every community in America can do.

Trees mean greener cities and neighborhoods. God's greatest air and noise filters, providers of shade and rest and privacy, they save on cooling costs, and reduce urban smog. But more than that, trees create a sense of **community** in the people who plant them -- and a sense of **continuity** between generations.

That's why I'm so pleased this year's budget has funding to begin our ambitious national tree planting program, "America the Beautiful" -- along with support for the National Tree Trust.

I made a commitment, as a candidate for President, to preserve our environment. **I promised the American people we would break the stalemate that has hindered progress for clean air in this country for thirteen years.** \\\

So a year and a half ago, I gathered together leaders from

Clean Air Announcement 6-12-89

both parties; environmentalists; and industry leaders -- because I believed it was time for a new approach.

To make real progress for clean air, the old tradition of simple regulation wasn't the answer. **We'd have to take advantage of the innovation, energy, and ingenuity of every American** -- drawing local communities and the private sector into the cause. It was time for a new kind of environmentalism -- driven by the knowledge that a **sound ecology and a strong economy can coexist**.

So I challenged the Congress to work with me on clean air legislation of a completely different kind -- and they've been true to the architecture and spirit of that legislation.

Now, thanks to the support and efforts of leaders like Pete Wilson, [ ], we are on the verge of a major domestic victory for all Americans. As soon as the Congress gets me a bill, **I will sign landmark legislation for clean air.** \\\

Clean Air Act 1990 Conclusions-TP's p. 1

It's efficient, effective legislation that will pull **56 billion pounds of pollution** from the air -- **224 pounds** for every man, woman, and child in America, **every day**.

" "p. 2

This clean air legislation will **cut the emissions that cause acid rain in half** -- by ten million tons. It will **cut the emissions that cause smog in our cities** -- so that by the end of this century, **over 100 U.S. major cities will have clean, healthy air.** It will **cut dangerous air toxic emissions by 90 percent. And it encourages widespread use of alternative fuels.**

Conclusion TP's p. 2

Not long ago, I told the nation of my commitment as an environmentalist. Now we can put it in perspective. We're

Schmitz: → do so w/ bold innov: can tr. progr. th will allow us to ach. and @ frac of cost.

Envirs have praised Pres.

* Skale out · EDF for working w/ Admin. to this

talking about conservation legislation on a scale that had ever attempted before. In its **size** and **scope** of pollution reduction, this isn't the most significant environmental accomplishment of this administration. **It's the single most significant environmental accomplishment in this nation's history.** \\\

And most important, it will work -- efficiently, at low cost -- because it's a bold new departure from the old contentious command and control tradition. It sets tough standards -- but then applies market-oriented strategies, **turning the efforts of industry to environmental advantage.**

It breaks up regional stalemates and conflicts here at home -- and reaffirms U.S. leadership on environmental challenges around the world. Experts from Japan and Europe are already visiting to ask us how we did it. It's sound energy policy, promoting conservation in electric utilities. And it's an important step toward energy security -- promoting new diversity and competition in fuel sources, to reduce our dependence on foreign oil by **over 800 thousand barrels of oil a day.** \\\

But best of all, this legislation taps the remarkable energy and enthusiasm of local communities and American industry. It encourages creative programs around the country -- especially **alternative fuel** efforts like those of Governor Deukmejian, Secretary Sharpless, and Chuck Imbrecht here in California.

In the short time since we issued the clean air challenge, we've seen a revolution in thinking about fuels. **The time is right. The people are ready. And industry is responding.**

Just two days ago, Amoco opened a station in Washington with a reformulated gasoline. Arco, Marathon, Exxon and others are all offering cleaner fuels. We're seeing compressed natural gas cars from GM, electric vehicles from Ford, and flexible-fueled vehicles from both. [[Look, I'm from Texas. I understand the cultural importance of the barbecue. So let me tell you, I want to make California safe for outdoor cooking.]]

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[[And now, let's let this tree start growing...]]

# # #

940 arr

945 speaker

955 concl – tree plantings
M/M Wilson
Gov Denk
Rep Gallagley
Lagomarsino
Miller

(Lange)
June 11, 1989
7:40 p.m.
[CLEANAIR.LDC]

PRESIDENTIAL REMARKS: CLEAN AIR ACT ANNOUNCEMENT
EAST ROOM
MONDAY, JUNE 12, 1989
11:00 A.M.

In this room are Republicans and Democrats. Leaders from both sides of the aisle in Congress. Governors. Executives from some of the most important companies and business organizations in America. Leading conservationists -- people who have devoted their lives to creating a cleaner, safer environment.

I have invited you here today to make a point: With the leadership assembled in this room, we can **break** the stalemate that has hindered progress on clean air for the past decade. With the minds, the energy, the talent assembled here, **we can find a solution.**

So let me tell you the purpose of this morning's gathering. First, I would like to lay on the table my proposals to curb acid rain, cut urban smog, and clean up air toxics. And second, I want to call upon all of you to join me in enacting into law **a new Clean Air Act this year.**

But first, we should remember how far we've come -- and recognize what works. The 1970 Clean Air Act got us moving in the right direction -- with national air quality standards that were strengthened by amendments in 1977.

Since 1970 -- even though we have 55 percent more cars, going 50 percent farther -- in spite of more utility output, and more industrial production -- we've still made progress. Lead concentrations in the air we breathe are down 98 percent. Sulfur dioxide and carbon monoxide: cut by over a third. Particulate matter: cut 21 percent. Even ozone-causing emissions have been cut by 17 percent.

Still, over the last decade **we have not come far enough.** Too many Americans continue to breathe dirty air -- and political paralysis has plagued further progress against air pollution. We have to **break** this logjam, by applying **more** than just federal leverage. We must take advantage of the innovation, energy, and ingenuity of **every** American.

The environmental movement has a long history in this country. It has been a force for good -- for a safer, healthier America. As a people, we want and need economic growth. But now, we must also **expect environmental responsibility** -- and **respect the natural world.**

This will demand a national sense of commitment. A new ethic of conservation. I reject the notion that sound ecology and a strong economy are mutually exclusive. So last week I outlined five points of a new environmental philosophy:

One -- to harness the **power of the marketplace**
Two -- to encourage **local initiative**
Three -- to emphasize **prevention**, instead of just clean-up
Four -- foster **international cooperation**, and
Five -- to ensure **strict enforcement. Polluters will pay.**

We know more now than we did just a few years ago. New solutions are close at hand. It is time to put our best minds to work. To turn technology and the power of the marketplace to the advantage of the environment. To create. To innovate. To tip the scales in favor of recovery, restoration, and renewal.

Every American expects and deserves to breathe clean air. And as President, it is my mission to guarantee it: for this generation, and for generations to come.

If we take this commitment seriously -- if we believe that every American expects and deserves clean air, and we **act** on that belief -- then we will set an example for the rest of the world to follow.

Today I am proposing to Congress a new Clean Air Act --and offering a new opportunity. We've seen **enough** of this stalemate. **It's time to clear the air.**

And you know, I think we will. We touched a lot of bases as we prepared this bill. We've had the benefit of some good thinking on the Hill. We've met with business leaders, who see environmental protection as essential to long-term economic growth. We've talked with environmentalists, who know that cost-effective solutions help build public support for conservation. We've worked with academics and innovative thinkers from every quarter, who have laid the groundwork for this approach. [[And just this morning I spoke at length with Prime Minister Mulroney.]]

I have no pride of authorship: Let me commend Project '88, and groups like the Environmental Defense Fund, for bringing creative solutions to long-standing problems -- for **not only breaking the mold, but helping to build a new one.**

We have had to make some tough choices. Some may think we've gone too far -- and others, not far enough. But we all care about clean air. To the millions of Americans who still breathe unhealthy air, let me tell you, I'm concerned. I'm concerned about vulnerable groups -- like the elderly, asthmatics, and children. Concerned about **every** American's

quality of life. And I'm committed to see that coming generations receive the natural legacy they deserve.

We seek reforms that make major pollution reductions, where we most need them, first. Our approach has reasonable deadlines for those who must comply. It has compelling sanctions for those who don't. It accounts for continued economic growth and expansion. Offers incentives, choice, and flexibility for industry to find the best solutions. And taps the power of the marketplace and local initiative **better than any previous piece of environmental legislation.**

This legislation will be comprehensive -- and cost effective -- **but above all, it will work. We will make the 1990s the era for clean air.**

We have three clear goals -- and three clear deadlines.

First, we will cut the sulfur dioxide emissions that cause acid rain by almost **half** -- by ten million tons -- and we will cut nitrogen oxide emissions by two million tons -- both by the year 2000. We have set absolute goals for reductions -- and have emphasized early gains. That means five million tons will be cut by 1995 -- **and the degradation caused by acid rain will stop by the end of this century.**

To make sure that coal continues to play a vital role in our energy future, we've provided an extension of three years and regulatory incentives for the use of innovative clean coal technology.

We've set an ambitious reduction target -- and applying market forces will be the fastest, most cost-effective way to achieve it. So we're allowing utilities to trade credits among themselves for reductions they make, to let them decide how to bring aggregate emissions down as cost-effectively as possible. Cleaner fuels, better technologies, energy conservation, improved efficiency -- in any combination -- **as long as it works.**

There is a wisdom to handing work to those most qualified to do it. Four hundred years ago, Montaigne wrote, "Let us permit nature to have her way. She understands her business better than we do." It's true. Acid rain must be stopped. **That's what we all care about.**

But it's also true that business understands its business better than we do. So we're going to put that understanding to **work,** on behalf of clean air and a sound environment. We've provided the goals -- but we won't micro-manage them. **We will allow flexibility in how industry achieves these goals -- but we stand firm on what must be achieved.**

Second, this federal proposal will cut the emissions that cause urban ozone -- smog -- virtually in **half**. This will put the states well on the road to meeting the standard. Twenty years ago, we started the job. If Congress will act on the Clean Air reforms I'm offering today, twenty years from now, **every** American, in **every city in America, will breathe clean air**.

Today 81 cities don't meet Federal air quality standards. This legislation will bring clean air to all but about 20 cities by 1995 -- and within 20 years, **even L.A., Houston, and New York will be expected to make it.**

In the nine urban areas with the greatest smog problems, we propose bold new initiatives to reconcile the automobile to the environment -- ensuring continued economic growth, without disruptive driving controls. We'll accomplish this through alternative fuels and clean-fueled vehicles. **We propose to put up to a million clean-fueled vehicles a year on the road by 1997.**

But we are also proposing flexibility on the means, even as we remain firm on the goals. A city can either request inclusion in the program -- or, if they show they can achieve these ambitious reductions through other measures, we will scale back the clean fuel vehicle requirements accordingly. Also, we are sensitive to the problems of smaller cities whose ozone problems are due largely to pollutants generated in other cities or regions -- **they will not be penalized for pollution problems outside their control.**

Our program incorporates a mix of cost-effective measures to cut emissions from cars, fuels, factories, and other sources. But I am asking the EPA to develop rules, like those we are employing on acid rain, to allow auto and fuel companies to trade required reductions in order to meet the standard in the most cost-effective way. **Our** challenge is to develop an emissions trading plan. **Their challenge is to meet the standards.**

The third leg of our proposal is designed to cut **all** categories of airborne toxic chemicals by three-quarters -- **within this decade.** Our best minds will apply the most advanced industrial technology available, to **control** these airborne poisons. The very best control technology we have **will determine the standard we set for those plants.**

Until now, because of an unworkable law, the EPA has been able to regulate only 7 of the 280 known air toxics. The bill I'm proposing today will set a schedule for regulating sources of air toxics **by dates certain.** In addition, it will give the dedicated people of the EPA the right tools for the job. It will make state-of-the-art technology an everyday fact of doing business. **And that's the way it should be.**

In its first phase, this initiative should eliminate about **three-quarters** of the needless deaths from cancer that have been caused by toxic industrial air emissions. And we plan a second phase to go after any remaining unreasonable risk. **People who live near industrial facilities should not have to fear for their health.**

For ten years we have struggled to engage a united effort on behalf of clean air. We are now on the edge of real change. 1989 could be recorded as the year when business leaders and environmental advocates began to work together. When environmental issues moved **out of the courts, beyond conflict, into a new era of cooperation.**

This can be known as the year we mobilized leadership, both public and private, to **make environmental protection a growth industry** -- and **keep our ecology safe for diversity.**

The wounded winds of North, South, East and West can be purified and cleansed -- and the integrity of nature can be made whole again. **Ours is a rare opportunity, to reverse the errors of this generation, in the service of the next. We cannot, must not fail. We must prevail.**

Thank you. God Bless you. And God Bless the United States of America.

# # #

(Lange/Cawley)
November 2, 1990
6:15 a.m.
[AIRBILL.DOC]

PRESIDENTIAL REMARKS: CLEAN AIR ENDORSEMENT & TREE PLANTING
CALIFORNIA LUTHERAN UNIVERSITY
THOUSAND OAKS, CALIFORNIA
SATURDAY, NOVEMBER 3, 1990
10:00 A.M.

Thank you. [[Governor Deukmejian, Senator Wilson; Congressmen Gallegly and Lagomarsino, Administrator Reilly.. Dr. Jerry Martin, Stacia Russ [ROOS]. It's a pleasure to see these trees spread beneath a broad and peaceful sky, like -- yes, a thousand points of shade. **And in a few minutes, it's going to be a thousand and one.** \\\ ]]

I'm told the people of Thousand Oaks have invested countless hours in urban forestry management -- something every community in America can do.

Trees mean greener cities and neighborhoods. God's greatest air and noise filters, providers of shade, privacy, and wildlife habitat -- they save on cooling costs, and reduce urban smog. But more than that, trees create a sense of **community** in the people who plant them -- and a sense of **continuity** between generations. That's why I'm so pleased this year's budget has funding to begin our ambitious national tree planting program.

I made a commitment, as a candidate for President, to preserve our environment. **I promised the American people we would break the Congressional stalemate that has hindered progress for clean air in this country for thirteen years.** \\\

So a year and a half ago, we developed a comprehensive clean air proposal. We talked with leaders from both parties; local government; environmentalists; and representatives of industry -- because I believed it was time for a new approach.

To make real progress for clean air, the old tradition of simple regulation wasn't the answer. By tapping the **efficiency of the marketplace**, and taking **advantage of the innovation, energy, and ingenuity of every American** -- we can achieve ambitious environmental goals. A new kind of environmentalism, driven by the knowledge that a **sound ecology and a strong economy are mutually supportive**.

So I challenged the Congress to work with me on clean air legislation -- and while they've differed in minor details, they've adopted the architecture and spirit of our legislation.

Now, thanks to the support and efforts of leaders like Pete Wilson, we are on the verge of a major domestic victory for all Americans. **I will soon sign landmark legislation for clean air.**

The bill I proposed last year and Congress passed last week is efficient, effective legislation that will pull **56 billion pounds of pollution each year** from the air -- **224 pounds** for every man, woman, and child in America.

This legislation is a bold new departure from the old contentious command and control tradition, achieving emissions reductions at a fraction of the cost -- not with more regulation, but smarter regulation. It sets tough standards -- but then

New approach & MARKET

applies market-oriented strategies, **turning the efforts of industry to environmental advantage.**

This clean air legislation will **cut the emissions that cause acid rain in half** -- by ten million tons -- and will permanently cap them at these new levels. It will **cut the emissions that cause smog in our cities** -- so that by the end of this century, **over 100 U.S. major cities will have clean, healthy air.** It will **cut dangerous air toxic emissions by 75 percent.** And it will **encourage widespread use of alternative fuels.**

We're talking about environmental legislation on a scale that has never been attempted before. In its **size** and **scope** of pollution reduction, this Clean Air Act isn't simply the most significant environmental legislation of this administration. **It's the most significant air pollution legislation in American history.**\\

This Clean Air Act is sound energy policy, promoting conservation in electric utilities. By encouraging the use of new, clean fuels, this legislation is an important step toward energy security. And it encourages creative programs around the country -- especially **alternative fuel** efforts like those of Governor Deukmejian.

In the short time since we issued the clean air challenge, we've seen a revolution in thinking about fuels. **The time is right. The people are ready. And industry is responding.**

Just two days ago, Amoco opened a Compressed Natural Gas station in Washington and announced a reformulated gasoline.

Arco, Marathon, Exxon and others are all offering cleaner fuels. We're seeing compressed natural gas vehicles from GM, and flexible-fueled vehicles from GM and Ford.

We're on the verge of a new era for clean air. So to commemorate a milestone in America's environmental history, today we'll plant a tree.

What we celebrate this day has roots running deeper than law. It is potential for new progress, a planting with a daily harvest, a promise lasting longer than our lifetimes.

[[And now, let's let this tree start growing...]]

# # #

The attached 5 pages support the following conclusions about the Clean Air Act of 1990:

- ***ENVIRONMENTAL AND ENERGY BENEFITS***

  - ***Cuts 56 billion lbs. of pollution; 224 lbs. per man, woman and child per year at $.24/day.***

  - Public health and ecological values include lower cancer risk, respiratory disease, fewer heart ailments fewer reproductive disorders and protection of lakes, streams, park forests and visibility.

  - Reduces oil imports by about 1 million barrels/day.

  - No significant costs before '95; most costs after 2000.

- ***THERE IS OVERWHELMING SUPPORT FOR CLEAN AIR***

  - Opinion polls overwhelmingly reflect public desire for clean air.

- ***IMPLEMENTS THE PRESIDENT'S MARKET-BASED PROGRAMS***

  - Culmination of President's 10-year commitment to regulatory reform using market-based principles and clean fuels to cost-effectively meet environmental standards.

- ***DEMONSTRATE DOMESTIC LEADERSHIP***

  - President fulfilled campaign commitment and broke 8 year Congressional log jam with 1989 proposal.

  - Congress adopted all the President's proposals in its Clean Air bill.

- ***FULFILLS CANADIAN CONCERNS***

  - Helps Canadians and reasserts American international environmental leadership.

CLEAN AIR ACT BENEFITS
PROTECTS HUMAN HEALTH

- o Cuts urban smog and other air pollutants. Over 100 major U.S. cities will reach attainment by 2000. The 130 million people living in them will breath healthier air.
  - Reduces air pollution-related deaths, chronic lung disease, asthma, cough, eye irritation and other air pollution ailments.
  - Particularly susceptible population includes children, the ederly, exercising adults and individuals with heart disease.
- o Cuts dangerous routine and accidental air toxic emissions by up to 95%.
  - Cancer fatalities an diseases of the lung, liver, kidney, thyroid, nervous system, blood and heart will be reduced in the population living near large industrial facilities.

PROTECTS THE ENVIRONMENT

- o Cuts acid rain emissions in half to 10 million tons.
  - Reduces acidity in U.S. and Canadian lakes and rivers
  - Reduces nitrogen loading of coastal waters like the Chesapeake Bay
  - Improves forest growth and agricultural yields
- o Lowers air toxic deposition to the Great Lakes and Coasts
- o Improves visibility and removes haze
- o Reduces greenhouse gas emissions
- o Phases out harmful ozone depleting CFCs

IMPROVES OUR NATIONAL ENERGY SECURITY

- o Cuts oil imports by over 800,000 barrels of oil per day
- o Creates incentives for new alternative automotive fuels
- o Reduces reliance on imported fuel for electricity generation

not bad next few years
- cost will be $25 bil @ 2005.
- century of mktplace new techs. could make it even cheaper.

(Lange)
June 11, 1989
7:40 p.m.
[CLEANAIR.LDC]

PRESIDENTIAL REMARKS:

CLEAN AIR ACT ANNOUNCEMENT
EAST ROOM
MONDAY, JUNE 12, 1989
11:00 A.M.

In this room are Republicans and Democrats. Leaders from both sides of the aisle in Congress. Governors. Executives from some of the most important companies and business organizations in America. Leading conservationists -- people who have devoted their lives to creating a cleaner, safer environment.

I have invited you here today to make a point: With the leadership assembled in this room, we can **break** the stalemate that has hindered progress on clean air for the past decade. With the minds, the energy, the talent assembled here, **we can find a solution.**

So let me tell you the purpose of this morning's gathering. First, I would like to lay on the table my proposals to curb acid rain, cut urban smog, and clean up air toxics. And second, I want to call upon all of you to join me in enacting into law **a new Clean Air Act this year.**

But first, we should remember how far we've come -- and recognize what works. The 1970 Clean Air Act got us moving in the right direction -- with national air quality standards that were strengthened by amendments in 1977.

Since 1970 -- even though we have 55 percent more cars, going 50 percent farther -- in spite of more utility output, and more industrial production -- we've still made progress. Lead concentrations in the air we breathe are down 98 percent. Sulfur dioxide and carbon monoxide: cut by over a third. Particulate matter: cut 21 percent. Even ozone-causing emissions have been cut by 17 percent.

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The environmental movement has a long history in this country. It has been a force for good -- for a safer, healthier America. As a people, we want and need economic growth. But now, we must also **expect environmental responsibility** -- and **respect the natural world.**

This will demand a national sense of commitment. A new ethic of conservation. I reject the notion that sound ecology and a strong economy are mutually exclusive. So last week I outlined five points of a new environmental philosophy:

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And you know, I think we will. We touched a lot of bases as we prepared this bill. We've had the benefit of some good thinking on the Hill. We've met with business leaders, who see environmental protection as essential to long-term economic growth. We've talked with environmentalists, who know that cost-effective solutions help build public support for conservation. We've worked with academics and innovative thinkers from every quarter, who have laid the groundwork for this approach. [[And just this morning I spoke at length with Prime Minister Mulroney.]]

I have no pride of authorship: Let me commend Project '88, and groups like the Environmental Defense Fund, for bringing creative solutions to long-standing problems -- for **not only breaking the mold, but helping to build a new one.**

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quality of life. And I'm committed to see that coming generations receive the natural legacy they deserve.

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There is a wisdom to handing work to those most qualified to do it. Four hundred years ago, Montaigne wrote, "Let us permit nature to have her way. She understands her business better than we do." It's true. Acid rain must be stopped. **That's what we all care about.**

But it's also true that business understands its business better than we do. So we're going to put that understanding to **work,** on behalf of clean air and a sound environment. We've provided the goals -- but we won't micro-manage them. **We will allow flexibility in how industry achieves these goals -- but we stand firm on what must be achieved.**

Second, this federal proposal will cut the emissions that cause urban ozone -- smog -- virtually in **half**. This will put the states well on the road to meeting the standard. Twenty years ago, we started the job. If Congress will act on the Clean Air reforms I'm offering today, twenty years from now, **every** American, in **every city in America, will breathe clean air**.

Today 81 cities don't meet Federal air quality standards. This legislation will bring clean air to all but about 20 cities by 1995 -- and within 20 years, **even L.A., Houston, and New York will be expected to make it.**

In the nine urban areas with the greatest smog problems, we propose bold new initiatives to reconcile the automobile to the environment -- ensuring continued economic growth, without disruptive driving controls. We'll accomplish this through alternative fuels and clean-fueled vehicles. **We propose to put up to a million clean-fueled vehicles a year on the road by 1997.**

But we are also proposing flexibility on the means, even as we remain firm on the goals. A city can either request inclusion in the program -- or, if they show they can achieve these ambitious reductions through other measures, we will scale back the clean fuel vehicle requirements accordingly. Also, we are sensitive to the problems of smaller cities whose ozone problems are due largely to pollutants generated in other cities or regions -- **they will not be penalized for pollution problems outside their control.**

Our program incorporates a mix of cost-effective measures to cut emissions from cars, fuels, factories, and other sources. But I am asking the EPA to develop rules, like those we are employing on acid rain, to allow auto and fuel companies to trade required reductions in order to meet the standard in the most cost-effective way. **Our** challenge is to develop an emissions trading plan. **Their challenge is to meet the standards.**

The third leg of our proposal is designed to cut **all** categories of airborne toxic chemicals by three-quarters -- **within this decade.** Our best minds will apply the most advanced industrial technology available, to **control** these airborne poisons. The very best control technology we have **will determine the standard we set for those plants.**

Until now, because of an unworkable law, the EPA has been able to regulate only 7 of the 280 known air toxics. The bill I'm proposing today will set a schedule for regulating sources of air toxics **by dates certain.** In addition, it will give the dedicated people of the EPA the right tools for the job. It will make state-of-the-art technology an everyday fact of doing business. **And that's the way it should be.**

In its first phase, this initiative should eliminate about **three-quarters** of the needless deaths from cancer that have been caused by toxic industrial air emissions. And we plan a second phase to go after any remaining unreasonable risk. **People who live near industrial facilities should not have to fear for their health.**

For ten years we have struggled to engage a united effort on behalf of clean air. We are now on the edge of real change. 1989 could be recorded as the year when business leaders and environmental advocates began to work together. When environmental issues moved **out of the courts, beyond conflict, into a new era of cooperation.**

This can be known as the year we mobilized leadership, both public and private, to **make environmental protection a growth industry** -- and **keep our ecology safe for diversity.**

The wounded winds of North, South, East and West can be purified and cleansed -- and the integrity of nature can be made whole again. **Ours is a rare opportunity, to reverse the errors of this generation, in the service of the next. We cannot, must not fail. We must prevail.**

Thank you. God Bless you. And God Bless the United States of America.

# # #

PUBLIC SUPPORT FOR CLEAN AIR

Roper Poll, April 1990

- The majority of Americans believe that protecting the environment should take precedence over ensuring adequate energy supply.
- 70% of Americans believe that environmental regulations have not gone far enough.
- The average consumer would pay 8 cents more for cleaner reformulated gasoline.
- 47% of Americans favor mandatory recycling regulations for newspaper, cans and bottles.

New York Times, March 1990

- 84% of Americans say pollution is a serious national problem that is getting worse.
- 74% say that environmental improvements must be made regardless of cost.
- 71% say we must protect the environment, even if it means higher taxes.
- 1 out of 5 say they know someone whose health was damager
- 56% say we must protect the environment, even if it means jobs in the community will be lost.
- 69% of Republicans say that protecting the environment is so important that requirements and standards cannot be too high.

USA Today, April 1990

- 63% would accept a lower standard of living for a cleaner environment.
- 51% would pay more for a clean fueled car.
- 69% agree that we should protect the environment even if some people will lose their jobs.

PRESIDENTIAL LEADERSHIP

- The President's Clean Air bill is a **domestic policy victory.** The President:
  - Led by introducing the bill
  - Led by negotiating with the Senate, and
  - Led by introducing a conference compromise
- It takes the issue away from the Democrats and meets one of the President's key **campaign commitments.**
- Enhances U.S. **international** leadership, and is particularly helpful to the Canadians.
- **Congress followed the President's lead** by passing a bill that includes all of the President's June 1989 proposals:
  - Acid Rain - 10 million tons; market-based trading system; permanent emissions cap
  - Auto Emissions - clean fuels and vehicles, using domestic fuels, like natural gas and ethanol from grain
  - Urban Air Quality - brings over 100 cities into cimpliance with health based air quality standards. same deadlines
  - Air Toxics - best technology to prevent toxic leaks from chemical plants
  - Permitting - requires operating permits and fees to pay for state oversight
  - Enforcement - provides better tools against violators
  - Stratospheric Ozone - protects ozone layer by phasing out CFCs to implement revised Montreal Protocol

REGULATORY REFORM

of task force as VP

- Implements President's 10-year commitment to regulatory reform. Environmental goals are met in the most cost-effective way possible with the use of market-based strategies and performance standards.

- Acid rain is controlled by specifiying emission goals for sulfur dioxide and nitrogen oxides. An affected company meets those standards by switching fuel, putting on technology, encouraging conservation, or buying/selling allowances from other companies to meet the goals.

- Performance standards are set for clean fuels. Refiners can use ethanol, methanol or reformulated gasoline to meet standards.

- Air toxics are controlled by setting performance standards that chemical companies and others meet through a variety of measures. Voluntary reductions will be encouraged.

1ST STORY of Level 1 printed in FULL format.

Newsday

June 14, 1989, Wednesday, NASSAU AND SUFFOLK EDITION

SECTION: NEWS; Pg. 6
Other Edition: City Pg. 15

LENGTH: 635 words

HEADLINE: Bush Plugging Plan to Improve U.S. Air Quality

BYLINE: By Marie Cocco. Newsday Washington Bureau

DATELINE: Lincoln, Neb.

KEYWORD: GEORGE BUSH; AIR POLLUTION; UNITED STATES; LAW; PROPOSED; ENVIRONMENT

BODY:

President George Bush, with the ragged peaks of Wyoming's Grand Tetons and an ethanol-powered car as props, touted his Clean Air Act proposals yesterday, saying that new technology is the centerpiece of "a new kind of environmentalism."

On a crystal-blue morning in the Rockies, Bush spoke of the hodgepodge of interest groups - energy producers, heavy industry and environmentalists - whose battle has helped stymie progress on a clean-air bill. His proposals seek to placate each of the groups to some degree, by imposing pollution-reduction mandates but allowing industry to decide how to achieve them.

Referring to criticism of his measure that already has begun to emerge from interest groups and their supporters on Capitol Hill, Bush said: "Some say we're asking too much, too fast. And others say not enough, too slow."

But, he went on, "environmental gridlock must end."

Though Bush sought to take advantage of what he called the "postcard perfect" scenery in Grand Teton National Park in northwestern Wyoming to illustrate what he says is his commitment to the environment, local environmentalists countered the visit, pointing up what they said is his uneven record. Before the president spoke, a klatch of protesters - identified by Mary Lacques of Jackson, Wyo., as having come from neighboring Idaho - were arrested on charges of protesting in a federal park without a permit.

Park Service officer Jim Northrup said several protesters were taken to Teton County jail. According to Lacques, who witnessed the arrests, the group was protesting the administration's slow reaction to the recent Alaska oil spill and demanding to know why Bush hadn't gone to Prince William Sound to stage his event.

And local environmentalists were also out in force, providing information on the Bush administration's plan to open 95 percent of Bridger-Teton National Forest, which borders Grand Teton National Park, to oil and gas exploration.

"These hills are too special to be used for drilling," said R. Scott Garland, sweeping his arm toward the icy peaks and lush pine forest that surrounded Bush. Garland's group, the Jackson Hole Alliance for Responsible Planning, is fighting the drilling.

Bush, who spent two days in the Rockies, never mentioned that he supports new drilling and lumbering on federal lands. Though he said in his speech yesterday that "even the Tetons cannot escape the threat of pollution," the president identified the threat as coming from air pollution drifting from major cities.

In Lincoln, Bush visited the University of Nebraska Center for Engine Technology, which conducts research on using corn-based ethanol to fuel engines.

The use of alternative fuels to reduce pollution is the cornerstone of Bush's proposal to reduce auto emissions. In New York City and eight other metropolitan areas with severe pollution, Bush would require that millions of new cars be sold, beginning in 1995, that run on methanol or other alternative fuels. Localities could win exemptions if they come up with other ways to cut pollution.

"Alternative fuel is going to help us reconcile the automobile to our environment," the president said. However, officials at the university lab told the president that questions remain about ethanol compatibility with gas-fueled cars and the cost of marketing it.

Bush's alternative-fuels proposals are typical of his approach to the clean air measure, in which he seeks to have industry, not federal regulators, come up with solutions.

It has political benefits, as well. Ethanol, derived from corn and other agricultural products, has long been pushed by farm state politicians looking to boost grain sales. And methanol, derived from natural gas, could be produced in the oil patch, including Bush's adopted home state of Texas.

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*POTUS has invited him here next Thursday for a briefing on their alt-fuel R&D

4TH STORY of Level 1 printed in FULL format.

Chicago Tribune

August 3, 1987, Monday, NATIONAL EDITION

SECTION: NEWS; Pg. 4; ZONE: C

LENGTH: 1535 words

HEADLINE: CORN SURPLUS, POLLUTION GIVE ETHANOL NEW PUSH

BODY:

A combination of Middle Eastern tensions, the farm economy, clean air standards and politics has brought back into prominence the issue of ethanol, the motor fuel made from the Midwest's most abundant product, corn.

Ethanol is being viewed increasingly as a way to help eliminate the nation's corn surplus of nearly 5 billion bushels and as a means of curbing air pollution in some 80 cities that are failing to meet federal clean air standards by the December deadline.

"I think people are finally beginning to realize that grain alcohol has a place in the American fuel market," said William Scheller, a University of Nebraska chemical engineer and ethanol pioneer who is credited with coining the word "gasohol" in 1972. Gasohol is a mixture of 90 percent gasoline and 10 percent ethanol. Just how much of a place, and when and if it will fully come about, are the questions now facing corn industry proponents of ethanol, who these days see a future for the yellow kernels in everything from anti freeze and adhesives, to fire briquets and bio degradable plastic bags.

Setting a national precedent, Colorado last month mandated the wintertime use of motor fuel containing either ethanol or MTBE (methyl terciary butyl ether) in vehicles operating in the heavily polluted Denver area and the eastern half of the state. Either fuel can cut carbon monoxide emissions by as much as 20 percent, according to federal studies.

In mid-July, Iowa Gov. Terry Branstad called for the state's 7,000-car fleet to convert to ethanol. In May, California struck a deal with Arco to sell methanol at 75 of its stations and announced it would help finance the purchase of 5,000 autos that can burn methanol, an alcohol fuel made from coal or natural gas.

In addition, several bills before Congress would mandate that half the nation's gasoline supply contain 10 percent ethanol by 1992. Other measures would encourage production of automobiles that can burn alcohol fuels by easing government fuel economy standards.

Alcohol fuels, especially ethanol, appear tailor-made for political candidates. They would seem to offer a means to cut the trade deficit, clean up the air, provide greater energy security, and in ethanol's case, reduce agricultural subsidies and grain storage costs.

Sen. Paul Simon (D., Ill.) introduced one of the gasohol bills. Sen. Bob Dole (R., Kan.) in April urged the Environmental Protection Agency to require the use of alcohol fuels in areas polluted by carbon monoxide. Vice President

George Bush took a similar position in a report by the President's Task Force on Regulatory Relief. All three are presidential candidates.

Still, the gasohol bills face strong opposition in Congress. Oil companies oppose them on grounds that they will introduce distortions and inefficiencies in the market, while restricting consumers' choices and perhaps increasing their costs. Consumer groups oppose them because they are not compatible with motor homes and pre-1980 autombile engines. And others oppose them on grounds they are mandates.

Corn alcohol proponents are worried about that opposition.

"There is simply no other alternative. How else do we reduce the corn surplus without wiping out the economy of the Midwest?" asked William Rosenberg, a former energy official in the Ford administration and now a real estate investor with rural holdings.

Heightened tensions in the Persian Gulf, however, along with the nation's rising dependence on imported oil, may counter at least some of that opposition.

"There's a growing sense in Washington of not wanting to be caught short-handed" again, said Eric Vaughn of the Renewable Fuels Association, a leading proponent of ethanol.

Eight percent of all gasoline now sold contains ethanol, say Department of Energy officials. In corn -growing states, the percentage is three and four times higher.

In 1979, a federal fuel tax exemption for gasohol was adopted, which made it attractive to oil companies. In the seven years since then, annual ethanol production has grown from 20 million gallons to 805 million gallons.

Yet some major oil companies such as Amoco oppose gasohol because they say it survives by subsidy and has not met with consumer acceptance. A recent Amoco study found that half of those who tried and gave up on gasohol cited poor performance and engine harm, according to Jerrold Levine, director of corporate studies for Amoco.

Ethanol proponents say those are charges involving old rumors having more to do with methanol and put forth by major oil companies that do not own ethanol production facilities.

"Large oil companies are reluctant to go to alcohol fuels because they like to maintain control of octane at the refinery," said David Lindhal, director of the Department of Energy's Alcohol Fuels Division.

But even Lindahl, who praises pure alcohol fuels for their superior performance, acknowledges some consumer resistance to gasohol. One factor, he said, has been pump labeling and negative advertising waged by the major oil companies proclaiming that their gasoline was pure.

"If all the rumors about alcohol fuels were true, the whole country of Brazil would be a parking lot by now," said C. Boyden Gray, an alternate fuels adviser to Bush. Brazil has cut its oil imports in half since switching to gasohol containing 22 percent ethanol made from sugar cane, Gray said.

Still, alcohol fuels--methanol more than ethanol--have caused some problems in older cars, proponents admit. The alcohol cleans gum out of fuel lines, which can lead to clogged fuel filters. Vapor lock has been an occasional problem. And alcohol's higher rate of evaporation, or volatility, means drivers travel slightly fewer miles per tank.

Automakers may remedy the latter problem with larger fuel tanks. Ford Motor Co. research scientist Roberta Nichols said the other problems, including corrosion of rubber, aluminum and zinc parts, have been remedied in most post-1980 cars.

Amoco's Levine, however, also attacks the reputed economic benefits of ethanol for U.S. farmers. By his calculations, even if half the nation's gasoline supply were to contain 10 percent ethanol, the price of corn still would not rise above the $3.04 per bushel that the government now guarantees farmers.

Meanwhile, the gain in reduced agricultural subsidies would be offset by an increase in alcohol fuel tax exemptions, he said.

His arguments echo those of a controversial Department of Agriculture energy office report issued last year. It was assailed as based on old data from ethanol's inefficient infancy in the 1970s, when only a few start-up plants were operating. Vice President George Bush was instrumental in persuading the Department of Agriculture to write another report, now being done by its economic research service.

While more ethanol is being produced now, methanol is said by many to be in a better position to displace the 110 billion gallons of gasoline Americans consume each year. It is cheaper to produce because coal and gas sources are more abundantly available. Although corn is renewable, it takes one bushel to make 2 1/2 gallons of ethanol.

But Michael Hall, spokesman for the National Corn Growers Association, argues with that.

"Two years ago this county grew 8.9 billion bushels of corn, and that was with set-aside programs in effect. So we have not tested what production could be if we had demand factors and more acres were put into corn, " he said.

To put 10 percent ethanol in half the nation's gasoline supply, about 5 billion gallons of ethanol would have to be produced. That would require about 2 billion bushels of corn, enough to eliminate much of the unwanted surplus, according to Thomas Faletti, an aide to Rep. Richard Durbin (D., Ill.), House sponsor of a gasohol mandate bill.

Lindahl of the Department of Energy does not see ethanol and methanol as competing.

"We are going to need as much as we can get from all sources," he said. The more likely competition is between ethanol and MTBE, made from isobutylene, a petroleum byproduct. MTBE, made at refineries, is favored by the oil companies--and probably will be favored in Colorado.

Clean Air -- Governor Deukmejian

-- The Deukemejian Administration is responsible for initiating the largest alternative fuels program in the nation.

-- The Governor has allocated $100 Million for the 8 year program to diversify the fuel mix, to improve the state's energy security and to reduce emmissions. All types of vehicles (heavy, medium, light types) are affected; the plan also calls for the use of methanol and ethnol, compressed natural gas, and electric vehicles.

-- Give a nod to the exceptional efforts of Secretary Sharpless (Chair of the CA Air Resources Board) and Chuck Imbrecht (Chair of the CA Energy Commission). They spearheaded the Governor's initiatives both in Sacramento and in D.C.

Gov's office is faxing us TP's today.

CLEAN FUELS - INDUSTRY

American Petroleum Institute
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news release

Clean Air Act

Media Contact: Gus Ensz
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STATEMENT OF THE AMERICAN PETROLEUM INSTITUTE

WASHINGTON, October 23 -- The petroleum industry strongly supports the objectives of the Clean Air Act Amendments of 1990 and will make every effort to help meet these objectives.

For areas with a carbon monoxide problem, we will provide gasoline containing greater amounts of oxygen in the winter. More oxygen in the fuel will reduce these carbon monoxide emissions.

Further, we are committed to providing reformulated gasoline to help reduce the ozone problem in the nine most seriously polluted cities -- cities that use almost one-quarter of the nation's gasoline. To provide data on how changes in fuel composition can reduce emissions, the petroleum and automobile industries have initiated the most comprehensive fuel and automotive research program ever undertaken. We hope this ongoing research, as well as other research being conducted by the industry, will yield valuable information to help industry and government meet the ambitious requirements of this Act.

The reformulated gasoline provisions adopted by the conferees present a challenge to the petroleum industry. These provisions set tough, new targets for emissions reductions for gasoline -- reductions which must be accomplished in a very short time frame. The petroleum industry will make major modifications in its refineries and supply and distribution systems to meet this challenge.

-more-

2. Clean Air Act

However, we are entering uncharted territory that is filled with uncertainty. Among the questions are:

-- is it technically feasible to meet the emission reductions targets?;

-- can fuel meeting these targets be supplied in the time provided?; and

-- what will the cost of such fuel be to consumers?

Given existing technology, refiners do not know how to achieve the 15 percent emission reductions required by 1995, much less the larger reductions required later. While we will search diligently for solutions, it is not yet clear whether changes in the hundreds of gasoline components will result in such significant emissions reductions.

It is especially unclear whether a fuel meeting the requirements set for benzene, aromatics and oxygen content can also meet the emission reductions targets.

The joint oil and auto industry research program has so far not revealed how to achieve these emission reduction goals; nor are we aware of other research demonstrating this. This is why we urged that the law include feasibility assessments for any required emission reductions so that these targets could be adjusted as necessary to ensure adequate supplies of gasoline at reasonable prices. Unfortunately, this was not done. If the emission reduction target cannot be met, gasoline cannot be sold in these cities.

We are also concerned about the limited time provided to meet the emission targets. The fuels program must be implemented in about four years. Within that time, refiners will not only have to determine how to change their gasoline, but also will have to get EPA's approval of these changes. That means complying with a myriad of regulations that EPA has not begun to write.

-more-

3. Clean Air Act

Only after the legislative and regulatory requirements are set can refiners complete plans for the major modifications necessary to their refineries. Moreover, refinery modifications could be further delayed by the new, more complicated permitting requirements of the Act.

These modifications will have to be made simultaneously by most refiners. However, over the last decade, the industry that provides the necessary engineers, services and materials has declined. Thus, it could take far longer than the four to five years it currently takes for design, permitting and construction of major refinery facilities.

This is a particular concern about oxygen. High levels of oxygen will be required in 41 carbon monoxide areas in less than two years and year-round in nine large ozone nonattainment cities a few years thereafter. Numerous studies have clearly demonstrated that large additions must be made to domestic oxygenate production capacity as well as major changes in the fuel supply and distribution systems to accommodate oxygenated fuels.

Since refiners do not yet know how to make gasoline meeting the standards in the Act, we do not know how extensive the changes will be at our refineries. Therefore, we do not know how much the cost of producing gasoline could rise. However, the increase could be substantial. It is unfortunate that the bill has some requirements that add to cost yet provide no environmental benefit. One particular example is the requirement to use oxygen year round even in ozone nonattainment areas which have no carbon monoxide problem in the winter.

America's oil companies are committed to improving our nation's air quality. The petroleum industry recognizes its responsibility to make cleaner gasoline. However, we do not yet have the answers that would enable us to achieve the goals set by the Clean Air Amendments of 1990. We believe it is imperative that all involved, government and industry, work cooperatively within the framework of the Act to achieve a reasonable result. The industry will certainly work diligently to meet these new requirements while continuing to provide the quality gasoline the American public expects at an affordable price.

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52ND STORY of Level 1 printed in FULL format.

September 29, 1990, Saturday, NORTH SPORTS FINAL EDITION

SECTION: NEWS; Pg. 1; ZONE: C

LENGTH: 814 words

HEADLINE: California sets new air-quality standards

BYLINE: By Jorge Casuso, Chicago Tribune. Tribune auto writer Jim Mateja contributed to this report

DATELINE: LOS ANGELES

BODY:

In a decision likely to have national implications, California adopted new air-quality standards Friday that mandate the development of "ultra-clean" cars and cleaner burning fuels.

The standards, which tighten what are already the nation's strictest emissions regulations, require the production of electric cars by 1998 and set the stage for wider use of alternative fuels, such as methanol, in some mass-produced cars.

Because California is the nation's biggest car market, the new standards are expected to have far-reaching effects on the automotive industry. In addition, the new regulations could serve as a model for other states.

"This could pave the way for a whole new generation of cars and technology and will redefine what we consider an environmentally acceptable car for the next two decades," said James Boyd, executive officer of the California Air Resources Board, which set the new standards.

"These regulations will impact everyone associated with the automotive industry well into the next century," said Samuel Leonard, director of automobile emission controls for General Motors. "It will change the very nature of passenger cars and trucks."

Under the new program, cars producing 50 percent to 84 percent less pollution than those now meeting the strictest standards must be phased into production by 1994, when a projected 200,000 such cars will be sold. By 2003 every new car sold in the state - a projected 2 million a year - must meet the standards.

What the plan foresees is an initial generation of flexible fuel vehicles that can use both gasoline and alternate fuels. Those will be transitional, leading ultimately to vehicles running solely on alternate fuels.

The regulations for the first time also require that such cleaner-burning fuels be made available. Alternatives range from superior grade, cleaner-burning gasoline to reliance on methanol and natural gas. Service stations will carry alternate fuels in Southern California by 1994 and statewide by 1997.

In addition, the guidelines require that 2 percent of all cars sold in the state have zero emissions by 1998, rising to 10 percent by 2003. That regulation will make electric cars an everyday reality.

Automakers, who fear that they lack the technology to meet the new timetable, successfully lobbied the board to allow greater leeway in meeting the new standards during the early stages of the program.

Still, Leonard said: "It will put some manufacturers out of business. The challenge is to be a survivor."

The new regulations are California's latest effort to curb the nation's worst pollution problem, caused in large part by the 22 million vehicles on the road.

"I think by passing this measure we are making one giant leap for winning the war," said board member Brian Bilbray.

Decisions made by the board, which is made up of nine appointed officials, require no legislative approval but can be challenged in court.

None of its rules has been challenged since the board was formed in 1968.

The Federal Clean Air Act allows California, which has smog problems worse than those in all other states combined, to set its own standards. The other states can then choose to adopt California's rules.

On Thursday, New York, which had failed to meet federal air quality standards under its existing controls, adopted California's pollution rules for cars and trucks for the 1993 model year. It has yet to decide whether it will adopt California's new, stricter standards. Seven other states are also studying the new regulations.

Automakers have also been testing battery-powered vehicles, mostly vans, for the California market. General Motors has been testing a small electric car called the Impact.

California's timetable for cleaner air.
Friday, California adopted "technology-forcing" automobile emission rules stricter then the federal government's. The average hydrocarbon emissions of all vehicles will drop from 0.25 grams per mile in 1994 to o.062 in 2003. Emission requirements will be phased in as follows.
- 1992: New standards on lead content, detergent additives and evaporation for cleaner-burning gasoline.
- 1994: Ten percent of all new cars will meet hydrocarbon emissions of 0.125 grams per mile, half the maximum allowed for 1993 under current rules; by 1996, the quota will be 20 percent of new cars.
- 1997: Twenty-five percent of all new cars will meet hydrocarbon emissions of 0.075 grams per mile; by 2000, the quota will be 96 percent of new cars.
- 1998: Electric cars (zero pollutants) will constitute 2 percent of new cars; by 2003, 10 percent of new cars.
- 2003: Seventy-five percent of all vehicles will meet hydrocarbon emissions standards of 0.075 grams per mile; 15 percent, 0.04 grams; 10 percent, zero pollutants.

15TH STORY of Level 1 printed in FULL format.

Los Angeles Times

October 23, 1990, Tuesday, Home Edition

SECTION: Business; Part D; Page 1; Column 4; Financial Desk

LENGTH: 795 words

HEADLINE: INDUSTRY HAS MIXED REVIEWS FOR PROPOSED CLEAN AIR LEGISLATION

BYLINE: By MICHAEL PARRISH, TIMES STAFF WRITER

BODY:

Companies that make pollution control devices for cars and industry are among the predictable winners under the proposed clean air legislation that cleared a House-Senate conference Monday. The losers include auto makers, oil companies and producers of high-sulfur coal.

But winners and losers alike were generally relieved that U.S. companies affected by the legislation can now get on with their business plans, since Congressional passage and a signature by President Bush are near-certainties.

"We're not ecstatic and we're not going to jump from the rooftops," said Mary Bernhard, manager of environmental policy for the U.S. Chamber of Commerce. "But I think the fact is, when you look at what the original Senate bill was, some segments of industry would literally have been shut down by the toxics section. I don't think that will happen now."

Indeed, some industries are likely to prosper under the new law.

These include companies building catalytic converters -- for autos -- and industrial smokestack scrubbers, which by environmentalists' estimates could generate hundreds of millions of dollars over the next few decades.

Natural gas and low-sulfur coal producers, many of these in the Western states, stand to gain billions of dollars as the expected new law continues a national shift from air-polluting oil and high-sulphur coal energy generation.

Predictably, the auto and oil companies, as well as many utilities, had less to celebrate.

Some business groups, including the National Assn. of Manufacturers, also remain unhappy. The association is expected to strongly condemn the measure in a press conference today.

"We are very disturbed that the new Clean Air Act conference agreement does not cover Greater Los Angeles or some other urban areas," said Theresa Pugh, director of environmental quality for the manufacturers.

Some aspects of the new clean-air regulations would apply to Los Angeles. Others would leave the South Coast Air Basin, which covers parts of four Southern California counties, under regulations of an existing federal program that manufacturers consider legally cumbersome and complicated.

High-sulfur coal companies, mainly in the East, will also feel the impact of the new regulations.

"Because of acid rain, dirty coal is going to take somewhat of a hit," said Robert Hahn, an economist at the American Enterprise Institute, who wrote portions of the original bill.

"There is going to be some loss over time to the number of jobs that will go to coal miners," Hahn said. "But most of that will be met by attrition, if you look at the figures."

"There's going to be a boost for the alternative fuels industry, " Hahn continued. "The ethanol industry made out well, the methanol folks are not going to be hurting, nor are the folks who want to do something with compressed natural gas. But the real group that stands to gain the most are lawyers in general, and lawyers in environmental groups."

And bureaucrats.

"You're going to see an EPA (U.S. Environmental Protection Agency) as a mega-department when they implement this one," said William D. Fay, administrator of the Clean Air Working Group, the industry coalition that worked on the bill.

"And I'll tell you that the biggest loser, the surprise loser, is going to be small business," Fay said.

Fay cited industry predictions that many small businesses -- from bakeries to mortuaries -- would have to pay for permits averaging $100,000 a year to stay in business. Many of these have never been regulated nationally.

"They are your local dry cleaner and your local printer," Fay said. "And once they've paid their $100,000 for a permit, they're still going to have to install pollution-control equipment, and pay for its maintenance. For a dry cleaner, typically, that means $70,000 to $185,000 in equipment installation."

Indeed, industry has estimated the total cost of the new Clean Air act at as high as $91 billion annually by the year 2005.

"The last cost estimate we did on the bill was around $50 billion a year once the major controls kick in," said Mary Bernhard of the U.S. Chamber of Commerce, "on top of the current $32 billion compiled by the Department of Commerce for what industry is paying today for clean air. "

"I think those figures are malarkey, they're battlefield figures," said Richard Ayres, senior attorney with Natural Resources Defense Council and chairman of the National Clean Air Coalition, the umbrella lobbying organization of environmental, labor and church groups supporting the legislation.

"Over and over again you see that when a new regulatory requirement is first proposed, industry looks only at current technology, or the most expensive way to go about it," Ayres said.

29TH STORY of Level 1 printed in FULL format.

The Christian Science Monitor

October 17, 1990, Wednesday

SECTION: IDEAS; Pg. 13

LENGTH: 782 words

HEADLINE: Auto Energy Alternatives Down the Road

BYLINE: Clara Germani, Staff writer of The Christian Science Monitor

DATELINE: WASHINGTON

HIGHLIGHT:

Supply precedes demand for compressed natural gas. GOING WITHOUT GASOLINE

BODY:

BUYING a gasoline-fueled automobile before there were gas stations was one of those supply-will-follow-demand acts of faith.

Today, supply is preceding demand when it comes to natural gas. For the equivalent of 60 to 70 cents a gallon, compressed natural gas (CNG) can be pumped at street-corner service stations in a growing number of urban locations.

Advocates of CNG-fueled vehicles believe that widespread industry and consumer demand for the clean-burning, inexpensive, auto fuel is just around the corner - especially with the increase in tough clean-air laws and the Iraqi reminder of the United States' precarious dependence on foreign oil.

''No one is demanding this,'' says Norman L. Bryan, vice president of Pacific Gas and Electric Company (PG&E), which last month opened the second of its seven planned compressed natural gas (CNG) refueling stations. But as state and federal clean air laws grow tougher, officials at the northern California utility - as well as a growing number of other CNG- fuel marketers in the United States - are positioning their companies for what they expect to be a strong demand for the low-cost, clean-burning CNG.

Only 13 public natural-gas vehicle refueling stations existed in the US in 1986, American Gas Association data show. But in urban areas, it is getting much easier for single vehicles, or fleet vehicles of companies not willing or able to invest in their own refueling stations, to drive up to a pump and fill their CNG cylinders from a high-pressure (3,000 pounds per square inch) hose.

More than 50 public stations (there are 300 private stations) were operating last year, and over a dozen more have opened this year. Most are run by state utilities.

But this month, San Diego Gas and Electric announced a joint venture in CNG refueling stations with Unical oil company. A private Denver company, Natural Fuels Corporation, operates two private refueling stations, including one with a 10-bay garage for converting vehicles to CNG and servicing them, and also supplies two Amoco service stations with natural gas.

''This is a very bold step,'' says Steve Plotkin, senior associate in energy at the Office of Technology Assessment, the analytical arm of Congress. ''They're doing this more for symbolic reasons than commercial for the moment ... but the moment could last 50 years.''

The market for CNG, which is the same fossil fuel pumped through pipes to homes for cooking and heating, remains largely an environmental dream, he says. (Vehicles powered by CNG produce 90 percent less carbon monoxide and 65 percent less ozone-forming pollutants.)

Mr. Plotkin points out that there are only about 30,000 natural-gas vehicles in the US (Italy, by comparison, has 300,000). Vehicles are not mass-produced for CNG fuel, he says, and the cost of converting them for dual gasoline/natural gas use is cost-efficient only for vehicles used for ''extremely high'' mileage. And a tank of CNG provides only about 200 miles of driving.

CNG advocates admit that the market will have to be painstakingly built.

''We're biting the bullet and putting in stations before demand in order to generate it,'' says Paul Nelson, vice president of Natural Fuels Corporation. The company expects to have a dozen street-corner service stations in operation in Colorado by the end of 1991. It is targeting commercial vehicles from ''the florist to the IBM fleet cars ... (organizations) which can't afford or don't want to build their own facility. By doing it, we begin mainstreaming the consumer,'' he says.

Pacific Gas and Electric officials ''saw enough factors in the market to sustain the use of compressed natural gas'' in automobiles, PG&E's Mr. Bryan says. The company's service-station project was launched in earnest last January when it became clear that the federal government intends to legislate ambitious clean- fuel vehicle mandates aimed at reducing urban smog and ozone pollution.

The Gulf crisis, too, after a decade of plentiful and cheap petroleum, has reminded Americans of the need for alternative fuels. After Iraq's invasion of Kuwait, Natural Fuels' Mr. Nelson says, calls tripled from consumers interested in converting their cars to CNG. (The process costs about $2,000 and simply adds natural-gas cylinders in the rear of the car. A second fuel line is connected to the engine's existing combustion system through regulated mixer equipment.)

To help boost the demand for CNG, a consortium of natural-gas industry companies - including Natural Fuels, PG&E, and San Diego Gas and Electric - has put up $1 million for General Motors Corporation to design and produce 1,000 natural-gas-burning trucks next year.

GRAPHIC: PHOTO: FILL 'ER UP: A tank in the trunk holds compressed natural gas in this demonstration model of a car that uses the inexpensive, clean-burning fuel. , R. NORMAN MATHENY - STAFF

34TH STORY of Level 1 printed in FULL format.

October 14, 1990, Sunday, FINAL EDITION

SECTION: PERSPECTIVE; Pg. 1; ZONE: C

LENGTH: 1965 words

HEADLINE: Gasohol back on the front burner as oil prices return to crisis levels

BYLINE: By William Mullen, a Tribune reporter. Tribune reporter William Gaines contributed to this report

BODY:

There is perhaps an element of an alchemist's magic in the image of pumping corn instead of gasoline into the fuel tank of a car and having the engine start up and purr contentedly away.

It was just such an image that captured much of the nation in the OPEC-induced gas crisis of the 1970s. That is when crude oil prices hit $38 a barrel and retail gasoline prices hit $1.50 a gallon, and it was a happy image, indeed.

And not a far-fetched one. You remember gasohol. It was something of the rage in the late 1970s, when it was almost patriotic to use it as a "go-to-hell" message to OPEC that the United States was on the way to finding alternative fuels to end our dependency on foreign oil.

But as OPEC lowered its crude oil prices in the 1980s from nearly $40 a barrel to $10, people forgot about gasohol or bought into a public perception that it was inferior to straight gasoline. Gasohol assumed such a negative connotation that many retailers stopped using the word.

"Marketers now prefer to use terms such as 'ethanol-enriched' or 'ethanol-blended' fuels, " said Maureen Lorenzetti, editor of an industry journal.

But Iraq's Saddam Hussein, the record price of crude oil and a Congress clamoring for higher grade, less polluting auto fuel seem about to jog America's consciousness about gasohol, a development that could prove a boon to Illinois with its large corn crops.

One of the reasons for the renewed interest is that ethanol has turned out to be a useful agent for reducing toxic auto emissions. Consequently, not only will gasohol - a blend of 1 part ethanol (an alcohol derived primarily from corn) and 9 parts gasoline - likely become more widely available in coming months, motorists in many major cities probably will be mandated by law to use it by 1992.

That will be an ironic twist in the fierce struggle waged over the last decade between two titans of American business - the big oil companies and the agribusiness industry.

The oil industry long has argued that it takes as much or nearly as much energy to produce a gallon of ethanol as the fuel itself provides. Citing research done by Amoco Oil Co., ethanol proponents say it takes only 1 gallon of oil to produce 10 gallons of ethanol. Depending on if you listen to pro-oil or pro-ethanol experts, each 10 gallons of ethanol used as fuel saves the country from having to import 2.5 to 7.1 gallons of foreign oil.

The oil companies claim that ethanol, which costs twice as much to produce as gasoline, is a $1 billion-a-year waste of taxpayer money. That is the cost of tax incentives that make gasohol prices competitive with gasoline. The oil companies say they have their own products that are cheaper, more abundant and just as effective as ethanol.

Corn farmers, food processors and ethanol producers see ethanol as a great boon to the economy: a way to cut oil imports, buck up corn prices and put idle farmland into production, thereby reducing costly federal farm support.

In the past, gasohol makers charge, many major oil companies fought against ethanol by barring franchise station operators from using company tanks and pumps to sell gasohol. Some threatened to terminate contracts with franchisees who sold ethanol. Others wouldn't accept company credit cards from customers buying gasohol.

The ethanol industry complained and Congress passed the Gasohol Competition Act in 1980, prohibiting oil companies from using unfair practices to drive ethanol out of the gasoline market.

Ten years later, 11 bankrupt ethanol producers are seeking a $2 billion judgment against nine oil companies in federal district court in Springfield.

The pending federal lawsuit, which includes two defunct Illinois ethanol makers - CEPO Inc., a south suburban company, and Greater Rockford Energy and Technology Corp. - accuses the major oil companies of waging a conspiratorial war against ethanol. It alleges that after the 1980 competition act, oil companies used a subtler but equally effective campaign against ethanol.

When gasohol was first retailed in 1978 and 1979, users found that because of ethanol's highly solvent properties, gasohol began cleaning off residues that had accumulated in older automobile engines. As the residues broke loose, they tended to clog fuel filters, stopping the flow of gas into the engines.

That resulted in a public perception that gasohol was an inferior, "dirty" fuel. Actually, the reverse was true. Gasohol was cleaner-burning than straight gasoline.

Ethanol makers and retailers, hoping to cash in on the patriotic cachet of gasohol, insisted on labeling retail pumps that the gasoline contained ethanol. It is a move many now believe was a damaging tactical error.

The lawsuit alleges the oil companies turned pump labeling against ethanol in an artful form of psychological warfare. Many major gasoline companies began distributing a slick signage campaign to their gas station operators.

The signs, prominently hung on pumps and around gas station property, read:

"My Gasoline is Not Blended With Alcohol"

"No Alcohol In Our Gasolines"

"Contains No Alcohol"

"100% Pure Gasoline Not Blended with Alcohol"

"Because of years and years of advertising," said Jim Bruce Smith, "there is a high degree of public acceptance that the major oil companies have a higher quality gasoline. People believe there is a 'tiger in the tank' and that other gasolines are of lesser quality when they are the same."

Smith is a Panama City, Fla., gasoline jobber who sells fuel wholesale to independent distributors and retail outlets. He made a deposition in the pending lawsuit on behalf of the bankrupt plaintiffs.

"Even in the cornbelt now the perception is that something is wrong with ethanol," he said. "Those places that sell it are afraid to advertise."

The oil companies named in the suit each deny the allegations.

The suit, filed in 1988, was called "baseless" by a spokesman for Chicago-based Amoco. "We intend to contest it vigorously and we expect to win," he said.

The public perception of ethanol as an inferior fuel is baffling in light of research advances and more than a decade of over-the-road experience with gasohol, which commands about 8 percent of the U.S. gasoline market.

Since 1979, Illinois' fleet of 8,000 state vehicles have been operating exclusively on gasohol, using more than 4 million gallons a year, after being ordered to do so by Gov. James Thompson.

"We have not had many problems with it," said Jay Wavering, the Central Management Services manager in charge of the fleet. "It burns cleaner, so it gets better mileage than regular gasoline."

Virtually every automaker now accepts gasohol as a safe, reliable fuel, with some, like General Motors, recommending its use in their new models.

What may prove to be even more important to gasohol in the future is ethanol's effectiveness as an "oxygenate," reducing carbon monoxide and ozone pollution, major targets in new clean-air legislation. "Oxygenated" fuels are ones containing more oxygen and thus burn off more completely than standard gasoline in car engines.

A gallon of gasohol emits 25 to 35 percent less carbon monoxide than ordinary gasoline. Its use is mandated in Denver, Albuquerque and Phoenix, cities with severe wintertime carbon monoxide emission problems.

But the ethanol and petroleum industries are typically at odds over gasohol's effect on the ozone. Ethanol producers insist their product slightly reduces ozone pollution. The oil industry disagrees.

"You have tradeoffs," said Jerrold Levine, director of corporate studies for Amoco. "While ethanol blends reduce carbon monoxide in the wintertime, it raises ozone in the summer."

House and Senate versions of clean-air standards are in joint committee negotiations this week, with a final version expected to pass and take effect as early as October 1991.

It will mandate use of oxygenated fuels in 44 cities with carbon monoxide pollution above federal standards, and in nine cities, including Chicago, not in compliance with federal ozone standards.

Key to the new legislation will be whether Congress extends tax incentive programs that have allowed ethanol to compete in the market.

The federal incentives, initiated under former President Jimmy Carter and set to expire over the next several years, are aimed at gasohol blenders and service station operators. Coupled with similar incentives offered by 28 states, they have made gasohol competitive with gasoline in retail pricing.

The incentive programs for ethanol are criticized by the petroleum industry for being too expensive. Yet a recent Government Accounting Office study suggests that if demand for ethanol increases significantly, the government might reap an overall savings because farmers who leave corn acreage idle to take advantage of farm support programs would start planting to cash in on rising corn prices. For every $1 lost to revenue through tax incentives, roughly $2 would come back through fewer farm subsidies, according to the GAO.

Similar studies by the federal Department of Agriculture show similar savings in the short run, but in the long term, ethanol tax incentives would result in overall federal revenue losses.

"As you look at all alternative fuels, " said Otto Doering, a Purdue University agricultural economist, "none make sense or would be competitive with gasoline until crude oil prices reached $40 to $50 a barrel."

Even though crude oil prices already have hit the $40 mark, Doering said ethanol would never be a large competitor. About 6 percent of the nation's corn crop is used in ethanol production. One government study projects that if the amount of corn used for ethanol rose much above 18 percent of the crop, corn prices would increase too much to make it economic.

Other alternative fuels being studied by the government, including shale oil, methanol, natural gas and solar electricity, are more dependably abundant and make more sense as long-term replacements for oil.

"Realistically, what we're talking about when we talk about ethanol is a fuel that can help on a relatively small scale," Doering said.

Yet even on a small scale, ethanol is a big business promising to get bigger. And Illinois is in a better position than most states to take advantage of an enlarged ethanol market.

By volume Illinois is the largest consumer of ethanol in the country. In 1988, motorists here bought nearly 1.5 billion gallons of gasohol, 50 percent

more than Ohio, the next heaviest user.

More importantly, Illinois is the biggest producer of ethanol in the country. Two Illinois companies own nearly 80 percent of the nation's ethanol processing capacity. Pekin-based Pekin Energy Corp. produces 10 percent of the nation's capacity. Decatur-based Archer Daniels Midland, the world's largest food processing business, owns four plants - two in Illinois, two in Iowa - with 68 percent of the nation's ethanol producing capacity.

ADM is well-positioned. Government studies surmise that big operators could most easily meet needs if gasohol becomes mandated fuel. It is six times more expensive to build an ethanol processing plant than to expand an existing one.

ADM jumped into ethanol production in the late 1970s and has been instrumental in maintaining tax-incentive programs. As a company with a world reach, it also has been a leader in pushing ethanol exports, already selling large quantities to Brazil. With strong connections in Europe, it stands to benefit from demands in Western European nations rushing to find ways to convert to unleaded gasoline.

Whether or not ethanol is a viable alternative fuel or, as its critics claim, an expensive tax incentive scam, it appears to have a new future in this country, and a profitable one in Illinois.

GRAPHIC: PHOTO: A billboard near the Archer Daniels Midland Co. plant in Peoria sends a clear message of its feelings toward the oil crisis in the Persian Gulf. The company is the largest producer of ethanol. AP Laserphoto.
PHOTO: Illustration by Barbara Cummings, Los Angeles Times Syndicate.

ENERGY; REPORT; STATISTIC; ILLINOIS; COST; FEDERAL; LAWSUIT

42ND STORY of Level 1 printed in FULL format.

Automotive News

October 8, 1990

SECTION: Pg. 17

LENGTH: 337 words

HEADLINE: Makers welcome California plan to review emissions technology

BYLINE: By Tom Lankard, SPECIAL CORRESPONDENT

DATELINE: SACRAMENTO, Calif.

BODY:

The California Air Resources Board's agreement to review carmakers' progress with low-emissions vehicles will help ensure that the state's clean-air goals are compatible with technology, according to a General Motors executive.

As part of a sweeping clean-air program approved Sept. 28, the board agreed to review in the spring of 1992 and periodically thereafter development of lowemissions vehicle technology.

"That was a key point" to GM's conditional acceptance of the board's plan, said Sam Leonard, director of GM's automotive emissions controls program. Makers had all argued that much of the technology needed to meet the standards was not yet available.

"You can't schedule invention," Leonard said. He believes the board's plan will "require midcourse corrections."

The board ordered carmakers to begin in 1994 to phase in a new generation of low-emissions vehicles that will be at least 50 percent cleaner than required by the tightest standard the auto industry has faced so far.

Under the plan, as approved by the board on an 8-0 vote, passenger cars and light- and medium-duty trucks and vans sold in California by 2003 will emit 75 percent less smog-related pollutants on average than in 1994. And by 1998, makers must produce annually at least 40,000 electric cars -- called ZEVs, or "zero emissions vehicles" -- for sale in the state.

In addition, between 1992 and 1994, leaded gasoline will be phased out in California. And, coincident with the introduction of low-emissions vehicles, service stations must begin making available reformulated, low-emissions gasoline and non-fossil alternative fuels to meet market demand.

To give makers more time to develop the technology to meet the new standards, the board allowed a three-year carryback period that permits makers to make up for not meeting a standard in earlier years by exceeding it later.

Makers also may use the new reformulated gas in certifying their cars to the state's standards beginning with the 1995 model year.

28TH STORY of Level 1 printed in FULL format.

Los Angeles Times

October 18, 1990, Thursday, Home Edition

SECTION: Metro; Part B; Page 1; Column 5; Metro Desk

LENGTH: 746 words

HEADLINE: CLEAN MACHINES ARE TOUTED AS A BREATH OF FRESH AIR; TECHNOLOGY: EXHIBITORS SHOW OFF THEIR ENVIRONMENTALLY SENSITIVE PRODUCTS, FROM ELECTRIC CARS TO MORE EFFICIENT BARBECUES.

BYLINE: By TIM WATERS, TIMES STAFF WRITER

BODY:

For Lara Hait, the recent ruling by air-quality officials banning traditional types of barbecue lighter fluids from Southern California by 1992 was a marketing dream come true.

"It's a thrill for us," Hait said as she stood behind an exhibitor's booth hawking her father's invention -- an insert for barbecues that promises to boost the efficiency of the cooker while using fewer briquettes.

"We have been pushing environmental sensitivity for six years and no one cared," Hait said.

Hait and more than 80 other exhibitors were on hand Wednesday at the Westin Bonaventure Hotel in downtown Los Angeles as part of the three-day California Clean Air and New Technologies Conference.

Distributors and manufacturers from around the country came to show off, and peddle, devices ranging from non-polluting pizza ovens and deep fryers to state-of-the-art mechanical devices geared toward helping heavy industry cut down on nitrogen-oxide emissions.

As part of the conference, which ended Wednesday, vehicles powered by alternative energy sources were displayed at a nearby bus maintenance yard. Lined up for visitors to inspect and for their promoters to expound upon were a bullet-shaped solar-powered car, a sleek battery-powered vehicle and a methanol-powered garbage truck.

"It was born and raised as an electric car, " beamed Tom Mitchell, a spokesman for Amectran, a Dallas-based company that developed the battery-powered car. "For $1.75 in Los Angeles you can drive 100 miles. Can your Mazda do that?"

Conference spokeswoman Blythe Egan said the event was planned over a six-month period and sponsored by a consortium of 14 public agencies and private companies. Besides manning exhibit booths, participants attended seminars on new pollution-fighting technologies.

"The main purpose is to just bring together the regulatory bodies with private industry and educational institutions to share knowledge and update everybody about what is going on," Egan said.

Inside the exhibitors' room, signs from such organizations as the American Methanol Institute and Institute of Gas Technology hung from booths. Several major oil companies were on hand, including the Unocal Corp., which decorated its booth with three large barrels filled with scrap metal. The metal came from old cars the company purchased as part of a program to get aging, high-polluting vehicles off the road.

Many used the conference to drum up business. One such person was Steven Martin, an area sales manager for a Huntington Beach company that distributes engine parts to convert vehicles from gasoline power to propane. He extolled the virtues of propane over gasoline, saying that it not only is a cleaner-burning fuel but also extends an engine's life.

"I know of a Chrysler engine with 250,000 miles on it," he bragged.

Others attending the conference said they came not so much to sell their products as to give the various state and local agencies that determine clean-air regulations an opportunity to inspect their goods.

"We want the exposure to different regulatory divisions," said Ken Halsauer, who works for a company that distributes pizza ovens and deep fryers that clean and recirculate smoke and other pollutants that typically are vented into the atmosphere.

At the maintenance yard, Bruce Ryan, a professor of mechanical engineering at Cal State Northridge, said the bullet-shaped, solar-powered car was built by a dozen of the school's seniors as part of a competition sponsored by General Motors. The two-seater is powered by a large solar panel and cost $40,000 to develop.

"We get about 1,500 watts, which is like a hair dryer," Ryan said.

While Ryan conceded that the solar-powered car is not yet ready for mass production, Mitchell contended that his electric car was. The car is powered by 24 batteries, which propel the car 75 to 100 miles before they need recharging -- perfect for the average commuter, he said.

"Do you know 90% of the people driving 95% of the time drive less than 50 miles a day?" Mitchell said.

Even though the battery-powered car drew a lot of attention, the biggest hit of the conference may have been the barbecue insert device developed by Lara Hait's father, Paul. Shortly before the conference adjourned, the Haits cooked lunch for many of those who attended.

"They used five barbecues and only used 150 briquettes, which is a half a bag, to cook hamburgers for 250 people," Egan said. "I thought that was kind of astounding."

GRAPHIC: Photo, Bob Zweig points out features of hydrogen-powered engine at conference on clean-air technology. ; Photo, An electric van looks a little different under the hood. Box in the middle is the system control. RANDY LEFFINGWELL/ Los Angeles Times

16TH STORY of Level 1 printed in FULL format.

Los Angeles Times

October 23, 1990, Tuesday, Home Edition

SECTION: Metro; Part B; Page 3; Column 5; Metro Desk

LENGTH: 737 words

HEADLINE: STUDY BEGUN IN PUSH FOR ELECTRIC TROLLEYS;
TRANSPORTATION: $750,000 PROJECT TO LOOK AT IMPACT OF CHANGEOVER. PROPONENTS SAY SUCH VEHICLES ARE QUIETER AND LESS POLLUTING.

BYLINE: By ELAINE WOO, TIMES STAFF WRITER

BODY:

Los Angeles County transportation officials announced on Monday the start of a $750,000, six-month study to replace the county's smoke-belching, diesel-propelled public transit buses with cleaner, quieter electrified trolleys before 2010.

Officials acknowledged that considerable public education will be needed to win support of the electric trolley bus system -- long used in a few major U.S. cities such as Seattle and San Francisco and abandoned in Los Angeles in the early 1960s -- largely because of concerns over the potential unsightliness of the overhead wires needed to power the vehicles.

They are pinning their hopes on public willingness "to have clean, noiseless buses and live with the overhead wires," said Nick Patsaouras, president of the Southern California Rapid Transit District board, which is conducting the study for the Los Angeles County Transportation Commission.

The electric trolley bus system was one of several sweeping changes ordered last year in a comprehensive clean air plan by the South Coast Air Quality Management District. Local transit authorities believe they can beat AQMD's deadlines, which require substantially reducing the number of diesel buses by 1998 and replacing all such vehicles with ones that are electric-powered or use lower-emitting fuels, such as methanol and natural gas, by 2010.

The study, which will explore environmental impacts, costs, routes and other operation aspects, will be "as close to an action plan as you can get," said Neil Peterson, executive director of the county transportation commission.

"The basic message of today is that the transit community is dead serious about looking at electric bus technology to see how we can bring it to the public a lot sooner than originally anticipated," he said.

Design and environmental analysis could begin in June on five trolley lines to be operated in heavy usage areas, such as the Wilshire Corridor or along the El Monte busway, RTD spokeswoman Andrea Greene said.

Electric trolley cars are more expensive than diesel buses but more cost-effective in the long run, according to local transit officials. An electric bus costs about $400,000, compared to $250,000 for a diesel bus, according to Green. But the trolley bus has a life expectancy of 25 years,

compared to 12 years for a diesel bus, and costs 30% less for overall maintenance.

Patsaouras estimated that it would cost $1.6 billion to convert 20% of the RTD's lines to trolley buses by 1998. The money would come from county Proposition C on the November ballot, which calls for a quarter-cent transportation tax.

Al Perdon, RTD assistant general manager, who recently returned from Seattle and Vancouver where he observed those cities' trolley bus systems, called the electrified buses "a really refreshing approach" to solving pollution and traffic problems.

"What is really exciting is that when you stand at a bus stop, the bus is there loading up passengers and it is absolutely quiet," said Perdon. "And . . . there are no fumes coming out the backs of buses."

Perdon said that the buses are so quiet that they could pose a hazard to pedestrians. Vancouver has reported a higher accident rate for electric than diesel buses. Green said that local transit authorities expect to install horns or other pedestrian warning devices on the trolley buses, as well as give trolley drivers extra training to avoid mishaps.

Perdon said the study will employ urban design experts to help devise ways to reduce the visual impact of the overhead wires needed to propel the trolley buses. He said it is possible to eliminate some of the bulky wires over intersections by equipping buses with a battery that would power the buses at street crossings.

Sierra Club regional director Bob Hattoy said Monday that the environmental group supports the move to electric buses because they are the most energy-efficient and least-polluting. He said that environmentalists will be monitoring how the electricity is produced to meet the heightened demand for electric power because "we don't want to replace (smog-producing buses) with the smokestacks of new electric power plants."

Los Angeles had the first trolley system in the country in 1910 -- the Red Cars, operated by the Pacific Electric Railway. The expansion of freeways and pressure from the oil industry brought an end to trolleys in 1963, when a switch was made to diesel buses.

SUBJECT: TRANSIT SYSTEMS -- LOS ANGELES COUNTY; TROLLEYS; LOS ANGELES COUNTY -- TRANSPORTATION; SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT; ALTERNATIVE ENERGY; ELECTRICITY; AIR POLLUTION CONTROL; ELECTRIC VEHICLES

5TH STORY of Level 1 printed in FULL format.

USA TODAY

October 29, 1990, Monday, FINAL EDITION

SECTION: MONEY; Pg. 1B

LENGTH: 1212 words

See 3rd page

HEADLINE: SQUEEZING OUT POLLUTION;
Clean Air bill's costly quest;
Firms brace for sweeping changes

BYLINE: Paul Wiseman

BODY:

For years, miners have hauled coal from the earth beneath tiny Universal, Ind., railroads have shipped it and PSI Energy has burned it to make heat for thousands of homes across Indiana. But those days are almost gone.

Over the weekend, Congress passed clean-air legislation that will sweep aside old ways of doing business in thousands of industries and communities. For Universal, the act means that PSI must install scrubbers on its power plants or find new sources of fuel - which could throw Universal's miners out of work.

For businesses from oil refineries on the Gulf Coast to the Sterling C. Sommer Inc. printing plant in Tonawanda, N.Y., the legislation - the first major overhaul of the Clean Air Act in 13 years - looms like a dark cloud. For them, the bill could impose crippling new costs. But for others, cleaning the air will be a chance to show off technical ingenuity, an opportunity to scour the skies and still make money.

One way or another, the Clean Air Act will change the way most U.S. companies operate well into the 21st century.

The Bush administration estimates the act will cost $ 25 billion a year by 2005, when it is in full force. Environmentalists peg the yearly bill at $ 20 billion. Industry says it could cost $ 50 billion a year or more. ''The politicians have given the public the idea that clean air is for free. It's not for free,'' says Ron Boltz, Chrysler's vice president of product strategy and regulatory affairs.

Fact is, nobody really knows how much the act will cost. Even in 1,100 pages of legislation, Congress didn't spell out exactly how most businesses are supposed to comply. It mainly just set pollution standards. In effect, lawmakers told industry and the Environmental Protection Agency: ''The public wants you to clean the air. Now go do it.''

In many ways, the real work on the Clean Air Act has just begun. The EPA will spend years writing guidelines to tell businesses what they must do. Undoubtedly, many details will be worked out in court. ''I call this the Lawyers' Relief Act of 1990,'' quips Jim Rogers, PSI Energy's chairman.

The bill's impact on power companies like Plainfield, Ind.-based PSI, at least, is pretty clear. To reduce acid rain, electric utilities must slash their annual sulfur dioxide emissions by 10 million tons by the turn of the century. About 95% of PSI's energy comes from burning coal; 80% of the 12 million tons of coal it burns every year is high in sulfur. ''We're probably the most-affected utility in America,'' Rogers says.

So PSI plans to install five scrubbers at a cost of up to $ 100 million apiece, and to load up on cleaner, low-sulfur coal. The company estimates the cost of compliance at $ 1.4 billion over the next 10 years - a big piece of change for a utility with annual revenue of $ 1 billion.

And the buck doesn't stop with PSI. The utility predicts that its customers' utility bills will climb 18% during the same period as a result of clean-air legislation. High-sulfur-coal miners in towns like Universal will be hit even harder. ''The closure of mines is imminent,'' says Don Anderson, 47, who followed in the footsteps of his father and grandfather by becoming a miner in southern Indiana. ''It's a dying industry. ''

Coal is far from the only Rust Belt industry to feel the Clean Air Act's pinch. At National Steel's Zug Island operation in the Detroit River, the issue isn't jobs, just money. Lots of it.

The company expects to have to spend $ 200 million rebuilding its coke oven operations, where coal is turned into coke to make steel. The new operations will release fewer toxic emissions into the atmosphere.

At least National Steel knows how to do what it has to do. The Big Three automakers say they aren't so lucky.

The clean-air bill requires them to cut car tailpipe emissions, to install systems that alert drivers when their pollution-control systems falter and to develop more vehicles that run on clean-burning fuels such as compressed natural gas. What's more, the tailpipe standards, already expected to add up to $ 500 to the cost of each new car by the turn of the century, could get even tougher in 2003 if the EPA deems it necessary. ''There's an awful lot that has to be invented,'' Boltz says.

The same thing happened back in 1970 when Congress passed the original Clean Air Act. Automakers warned then that they wouldn't be able to meet new emissions standards, and they couldn't. So in 1977, Congress eased the tailpipe standards. By 1983, new cars met the revised requirements.

Oil companies say they're in the same bind. The bill requires them to sell cleaner gasoline by 1995 in the nine cities with the nation's most ozone pollution. The cities: Los Angeles; New York; Philadelphia; Chicago; Baltimore; Houston; San Diego; Milwaukee; and Muskegon, Mich.

Texaco Chief Executive James W. Kinnear said it was unreasonable to mandate gasoline ''which cannot be made in existing refineries and which many in our industry doubt can ever be made.'' He warned that Congress was ''gambling with the U.S. economy and our energy security.''

Big Business isn't alone in bemoaning the clean-air burden. Main Street will share the load. But the impact on small businesses won't be clear for

quite some time.

In polluted cities, businesses that release ozone-causing or toxic chemicals will face licensing fees and guidelines that have yet to be created. Even bakeries aren't immune: That sweet smell wafting out of their ovens is pollution: ethanol.

Some small businesses are trying to get a jump on the requirements. Near Buffalo, the Sterling C. Sommer printing plant already is searching for environmentally friendly chemicals. It has tried out a new degreaser made from orange peels that might replace solvents that contribute to ozone pollution.

In tallying the costs of the Clean Air Act, it's easy to overlook the economic benefits, though they are even harder to measure than costs. The American Lung Association predicts cleaner air eventually will help cut health-care costs by $ 50 billion a year - good news for firms that now face annual increases of 20% or more in health-benefit costs.

The act will be a boon to companies such as Combustion Engineering that make pollution-control equipment; producers of low-sulfur coal, mostly mines in the West; and companies such as Transco Energy that find, ship or sell natural gas.

Then there are the intangible benefits of simply having cleaner air. ''The bottom line is important,'' says John H. Evans Jr., a Sommer spokesman. ''But some things are more important. We only have one planet.''

Bill's highlights

- Acid rain: Utilities must cut sulfur dioxide emissions by 10 million tons a year by 2000.

- Alternative- fuel vehicles: California will set up a pilot program requiring 150,000 clean- fuel vehicles beginning in 1996 and 300,000 in 1999.

- Auto emissions: Automakers must cut hydrocarbon emissions by more than 35% and nitrogen oxide emissions by 60%.

- Motor fuels: Gasoline in the nine U.S. cities with the most ozone pollution must burn 15% cleaner by 1995 and at least 20% cleaner by 2000.

- Toxic emissions: Businesses must install technology to cut use of 189 airborne toxics.

Source: USA TODAY research

GRAPHIC: color, Web Bryant, USA TODAY

TYPE: Cover Story

SUBJECT: LEGISLATION; CONGRESS; POLLUTION; ENVIRONMENT; CORPORATION

90TH STORY of Level 1 printed in FULL format.

Los Angeles Times

September 5, 1990, Wednesday, Home Edition

SECTION: Business; Part D; Page 2; Column 5; Financial Desk

LENGTH: 214 words

HEADLINE: ARCO SET TO INTRODUCE 2ND LOWER-EMISSION GASOLINE

BYLINE: From a Times Staff Writer

BODY:

Atlantic Richfield Co., which introduced a lower-emission gasoline last year, will unveil another new gasoline later this week, the Los Angeles-based company said Tuesday.

Industry observers have been expecting Arco to introduce sometime this year a lower-emission gasoline for cars that use unleaded fuel. Arco's EC-1 was designed to replace leaded gas used in older cars.

Company officials declined to provide further details until a Thursday morning press conference with Arco Chairman Lodwrick M. Cook. In a statement, the company would only say the news conference "will deal with another clean-air advance."

Since Arco introduced EC-1 in August, 1989, several other oil companies have followed suit with their own reformulated gasolines. But while EC-1 is intended for cars that use leaded fuel, many of the other reformulated versions are intended for newer cars that used unleaded gasoline. Some of these include Shell SU 2000E, Chevron Supreme Unleaded and Exxon Plus.

A shortage of a key ingredient and instability in energy markets recently forced Chevron to temporarily postpone the late-summer introduction of its reformulated gasoline in Houston, Baltimore and Washington. Chevron's lower-emission fuel was introduced in Southern California earlier this year.

SUBJECT: ATLANTIC RICHFIELD CO; VEHICLE EMISSIONS; GASOLINE; PRODUCT DEVELOPMENT; AIR POLLUTION; POLLUTION CONTROL

88TH STORY of Level 1 printed in FULL format.

September 6, 1990, Thursday, Final Edition

SECTION: FINANCIAL; PAGE E4

LENGTH: 583 words

HEADLINE: GM May Expand Plan For Gas-Powered Trucks;
Talks With Consortium Said to Be Underway

SERIES: Occasional

BYLINE: Donald Woutat, Los Angeles Times

DATELINE: DETROIT, Sept. 5

BODY:

General Motors Corp. is weighing a $ 40 million proposal by California and Texas natural gas interests to sharply expand the company's first-ever mass production of trucks that will run on natural gas, industry sources said today.

A consortium of natural gas producers and utilities is negotiating with GM to launch 1994 production of four types of truck engines and up to a dozen types of trucks, vans and buses designed and built to burn natural gas, sources said.

It was not clear how many vehicles would be involved. But if carried out, the plan would suggest an increase in the scope of GM's interest in compressed natural gas as an alternative fuel for cars and trucks.

GM would not comment today on any negotiations with natural gas interests, except to say that it does not expect any agreements in the immediate future. But sources in the natural gas industry described the general plan, which was confirmed by an aide to Garry Mauro, Texas land commissioner.

The plan calls for the automaker to pay $ 24 million and the gas industry $ 16 million to engineer the vehicles and engines to run on natural gas. It would involve all categories of GM vehicles weighing more than 7,000 pounds, sources said.

The 30,000 or so natural gas-powered vehicles now on U.S. roads were converted from gasoline-burning fuel systems and are considered inefficient.

Fueling cars and trucks with natural gas, which burns more cleanly than gasoline, is regarded as one way to meet the tough new clean-air standards being debated in Congress and implemented in states such as California.

The natural gas industry is hoping for major commitments by GM and other auto companies to build natural gas-ready cars in the factory. But the automakers are reluctant to spend much money on such projects until they know the final shape of a clean-air bill nearing completion in Congress.

However, GM, the Texas General Land Office and 10 natural gas utilities in California, Texas and Colorado announced in July that the automaker would

begin producing at least 1,000 Sierra pickup trucks in early 1991 that would be designed and built to run on natural gas. They are intended for sale to fleet customers, including the utilities themselves, that have refueling facilities.

At the time, GM -- which has favored methanol and so-called "reformulated" gasoline as solutions to the auto-emissions problem -- said the Sierra project was a first step in a natural gas development program. The $ 40 million proposal is the first indication of what the next steps might be.

The surge in gasoline prices that followed Iraq's invasion of Kuwait on Aug. 2 has further provoked interest in natural gas as an auto fuel. GM said that it has since been deluged with proposals from other natural gas interests.

"We plan to have a contract in place by the first of October," a natural gas industry executive said today. "But if it shows up in the [news]paper, it's very likely that GM would cancel the program. They're that sensitive about it."

The executive said that GM does not want to lock itself into the program until it sees the final shape of the clean-air legislation.

However, a GM spokesman said that the clean-air bill has nothing to do with GM's plans and that none of its negotiations on natural gas projects will be completed as early as Oct. 1.

"There's nothing that imminent, nor would we postpone anything because of the clean-air bill," said Thomas Klipstine, a spokesman for GM's truck and bus group.

TYPE: NATIONAL NEWS

SUBJECT: MOTOR VEHICLE INDUSTRY; PRODUCT DEVELOPMENT; FREIGHT VEHICLES; NATURAL GAS

ORGANIZATION: GENERAL MOTORS CORP.

84TH STORY of Level 1 printed in FULL format.

Los Angeles Times

September 7, 1990, Friday, Home Edition

SECTION: Part A; Page 1; Column 2; Metro Desk

LENGTH: 1055 words

HEADLINE: DWP, EDISON TO INVEST IN ELECTRIC CAR

BYLINE: By FREDERICK M. MUIR, TIMES STAFF WRITER

BODY:

Seeking to slash Southern California air pollution at its greatest source, two big Los Angeles utilities on Thursday agreed to invest $7 million to develop an electric car and get thousands of them on the road within five years.

In an agreement with the start-up Swedish concern Clean Air Transport, the Los Angeles Department of Water and Power and Southern California Edison Co. agreed to jointly fund the project that is intended to bring 1,000 electric vehicles to Los Angeles by 1992 and 10,000 by 1995.

"Someone has to be the spark plug to make this happen," said Eldon Cotton, DWP assistant general manager for power. A regional air quality plan requires 70% of all vehicles to be electric -- or otherwise non-polluting -- by 2010.

"It is essential that we move ahead on clean air, " said Los Angeles City Councilman Marvin Braude, who spearheaded the effort to underwrite electric car development. "We must find alternative fuels (to oil) -- and electric power is the fuel of choice."

The car -- dubbed the LA 301 -- would carry four passengers, have a range of 150 miles and a top speed of 70 m.p.h. and accelerate from zero to 30 m.p.h. in nine seconds. As designed, the car would have a molded plastic body and a galvanized steel frame. It would be available in passenger sedan and quarter-ton mini-van models.

Officials said the vehicles would initially retail for about $25,000, but the price could come down with large-scale production. "They're fun to ride. It's exciting and they are vibrationless," said Braude about his test drive in a prototype.

"The steps taken today will assure development of a commercial electric vehicle," said Cotton. "It's a real solution to a problem we all share."

The DWP estimates that 70% to 80% of Los Angeles-area air pollution is caused by emissions from the 8 million cars and trucks that operate daily in the basin. Clean Air Transport officials said that electric vehicles create only 3% as much pollution as comparable gas-fueled autos -- even factoring in the pollution created in making electricity for battery recharging.

DWP officials acknowledge that they hope the introduction of electric cars will help persuade the South Coast Air Quality Management District to ease pollution restrictions being placed on DWP and Edison power plants.

"We hope this will mitigate" concerns over power plant pollution, said Jerry Enzenauer, electric transportation program manager for the DWP. But, he added, "The AQMD has not yet accepted that this will work."

The $7-million electric car investment by the two local utilities is a small fraction of the several hundred million dollars that they estimate it would cost to retrofit power plants to meet AQMD guidelines by the end of the century.

Electric cars have long been considered one solution to pollution in the Los Angeles Basin, but as yet no company has developed a commercially viable vehicle.

Clean Air Transport beat out 18 U.S. and international competitors to win the DWP/Edison award. Braude and DWP officials said the promise of quick delivery of vehicles is what gave Clean Air Transport the edge over other bidders.

The firm was founded about two years ago by a group of British, American and Swedish investors for the sole purpose of creating an electrically powered vehicle. Most of the engineers that have joined its team have worked for large European car manufacturers such as Saab, officials said.

Although Clean Air Transport has not built a car before, Braude said Los Angeles officials have confidence in the firm and sought an entrepreneurial outfit that could move quicker than the larger, more established automobile manufacturers.

"They had the best chance for success early on, and that is important," said Braude.

Clean Air Transport executives would not say how much they have invested in the project, but DWP officials said it is "substantial."

The privately held company, which is working in conjunction with the British design firm of International Automotive Design, has completed 10 months of design work and plans to start production by late 1992. Initially, the car will be produced in England. But Clean Air Transport Managing Director Henry Munkevik said all or some manufacturing could eventually be shifted to Los Angeles, where most of the cars are likely to be sold.

The design of the LA 301 is based on a 1983 experimental car -- the Whisper -- that was funded by the Danish government. Only 30 of those cars were produced and, like virtually all electric car prototypes, they were never marketed.

With Mideast tensions rising and concerns over oil prices and supplies mounting, auto analysts say there will be increasing pressure to produce commercially viable electric vehicles.

General Motors, which did not submit a proposal for the Los Angeles award, has an electric vehicle in development. But officials, citing competitive concerns, refused to disclose when it would be available for sale. Ford and Chrysler also have prototypes in the works.

GM introduced its prototype electric car -- the Impact -- in Los Angeles last year and the company's then-chairman, Roger Smith, said he hoped to have it on the market in three to five years.

Some Los Angeles officials said they are skeptical that GM will have a car on the market any time soon.

"They have not done anything," said Braude when asked why domestic car makers were passed over for the $7-million award. "They have not delivered anything and they won't for 10 or 15 years," he speculated. "We think they have let Southern California down. They should have invested in electric vehicles years ago."

Commented GM spokeswoman Toni Simonetti: "Trust me. We are working to get an electric car out there."

GM announced in 1980 that it would build an electric car by 1985, but when oil prices dropped, GM abandoned the plan. Analysts say the company will probably make good on its latest promise because restrictive clean air rules are a certainty.

Whoever does develop a commercially viable electric vehicle will certainly bring it to Los Angeles first, city and industry officials said.

Braude said large fleet owners under the threat of AQMD restrictions would be among the first buyers of the LA 301. The city of Los Angeles and the DWP, he said, also would probably be among the early purchasers.

GRAPHIC: Photo, The four-passenger LA 301 electric car will initially cost $25,000.

SUBJECT: AIR POLLUTION -- SOUTHERN CALIFORNIA; POLLUTION CONTROL; LOS ANGELES DEPARTMENT OF WATER AND POWER; SOUTHERN CALIFORNIA EDISON CO; ELECTRIC VEHICLES; SOUTHERN CALIFORNIA -- TRANSPORTATION; ALTERNATIVE ENERGY; CLEAN AIR TRANSPORT (COMPANY); VEHICLE EMISSIONS; INVESTMENTS; LOS ANGELES -- TRANSPORTATION; PRODUCT DEVELOPMENT

31ST STORY of Level 1 printed in FULL format.

The Christian Science Monitor

July 1, 1981, Wednesday, Midwestern Edition

SECTION: Pg. 13

LENGTH: 800 words

HEADLINE: Small city's vehicles take cheaper, cleaner route -- on natural gas

BYLINE: By Lucia Mouat, Staff correspondent of The Christian Science Monitor

DATELINE: Henderson, Ky.

BODY:

When it's time to refuel this city's small fleet of government cars and trucks, the filling station attendant bypasses the gas tank and heads under the hood. There he plugs a thin hose into a regulator valve. The resulting sound is nothing like the usual hum of gasoline going into the tank.

"You'd think it was air to listen to it," says Oliver Van Meter, Henderson's director of public utilities, who has just pulled his official white car into the station for refueling. "It's kind of like getting a flat tire filled up."

What Henderson uses -- and what a number of other cities are considering using -- is compressed natural gas. City vehicles here carry anywhere from one to four heavy white steel cylinders of the fuel in their trunks. Each cylinder contains the equivalent of 3.2 gallons of regular gasoline. The natural gas gets roughly the same mileage as gasoline but at about one-fourth the cost.

Most city vehicles operate within a radius of five miles of City Hall -- but if fuel runs dry before a return to the city's one compressor station is possible, the driver simply shifts a lever near the steering wheel and switches to a backup gasoline tank. A gauge under the dashboard that translates measurements of temperature and pressure of the natural gas into cubic feet lets the driver know exactly how much fuel is left.

When city officials here were searching for new ways to economize a few years back, they first looked into electric cars and propane fuel. But they decided the first was not versatile enough for the cost involved and the second was not stable or safe enough to meet their standards.

One key reason Henderson eventually settled on natural gas is that the city happens to own its own natural gas company which is expected to yield the city $900,000 in surplus revenue this year. Aside from the brief national crisis in natural gas supplies four or five years ago, the city has had, and expects in the future, no problem in getting as much of the fuel piped in as it needs.

City officials readily admit that the initial cost of converting Henderson's fleet of 65 cars and trucks is considerable -- an estimated $183,000. But they are expecting a full payback of costs within two years. Though they admit much depends on the future price of gasoline, city officials expect to save $100,000 a year. Added advantages, they say, include less pollution (natural

gas is clean- burning and leaves no carbon buildup) and lower maintenance costs in terms of fewer tune ups and oil changes needed.

Henderson is the first city in Kentucky trying the natural gas alternative. Some cities in the South and West have been trying it longer, and their largely successful experience helped persuade Henderson to take the plunge. But a number of other cities looking on with interest have been hesitant to follow suit because of the high initial cost involved and a lingering concern about the future availability of natural gas, according to Wally Gernt, director of the municipal energy program of the National League of Cities.

"Many cities are looking at it," he confirms, "but a lot don't have the up-front capital to make the commitment and their cost benefit studies sometimes show it's cheaper to stay where they are."

One cost advantage, as Henderson sees it, is that the conversion materials can be removed from any vehicle and put on any replacement vehicle added to the fleet.

At the moment the city's fire trucks, garbage fleet, and buses, many of which run on diesel fuel, are not equipped to run on natural gas. But Mr. Van Meter says that could change as vehicles are replaced.

Not everyone involved takes to the change with immediate enthusiasm, he admits. Police, who often spend more working hours in their cars than other city employees, tend to be the hardest to convince. Most of their cars are being equipped with three cylinders so that they will have to fill up less often.

Some city workers complain that they don't get the same power thrust with natural gas. But Mr. Van Meter, who says he thinks the ride on natural gas is smoother than on gasoline and that the only drawback is a slight hesitation in switching from one fuel to the other, counters: "Some hot rodders don't like anyting if they can't burn rubber."

He contends that after a few days of driving, most city employees get used to the change and stop complaining. It behooves them. Because Henderson is so serious about its commitment to fuel the local fleet on natural gas that the employee who switches to gasoline when his alternate tank runs dry is required to radio in to headquarters the reason why.

"We don't want them using gasoline at all if they don't have to," explains Mr. Van Meter.

1ST STORY of Level 1 printed in FULL format.

Automotive News

October 8, 1990

SECTION: Pg. 2

LENGTH: 921 words

HEADLINE: GASSING UP;
Development of alternate-fuel trucks gains speed; Chevrolet plans new option

BYLINE: By Joseph Bohn, TRUCK EDITOR

BODY:

Chevrolet plans to offer alternate-fuel engines as regular production options in a variety of light trucks by the mid 1990s.

The program will significantly expand on GMC Truck Division's plan to build 1,000 natural gas -powered trucks in 1991, and represents the industry's most aggressive push into alternate fuels yet.

Ford Motor Co. currently has no specific plans to produce natural gas -powered trucks, according to a spokeswoman.

Ford did test 27 Ranger pickups operated on natural gas -powered engines, and is evaluating the results.

Jeff Seisler, executive director of the Natural Gas Vehicle Coalition in Arlington, Va., said his group has met and is working with Ford and Chrysler Corp. as well as General Motors regarding natural gas vehicle programs, but 'is not at liberty to diclose the nature of the discussions."

Some other commercial vehicle manufacturers -- such as the Flexible Bus Co. in Columbus, Ohio, Ontario Bus Industries in Toronto and Tecogen Inc. of Waltham, Mass. -- also have begun producing natural gas powered for sale in the United States and Canada.

Tecogen, working with GM, modified a GM 427-cubic-inch V-8 to run on natural gas, and has a $ 700,000 order to convert 10 California school buses to compressed natural gas.

Over 220 natural gas buses have been produced through the Urban Mass Transportation Administration program. The Washington-based organization funds 75 percent of all urban bus purchases in the United States.

Chevrolet will offer both compressed natural gas and liquid propane gas engines to satisfy fleets, such as Phillips Petroleum's, that still strongly favor liquid propane.

Pat Henyon, a Chevrolet truck powertrain planner, said the division would initially help GMC develop the 5.7 liter V-8 natural gas -powered C20903 regular cab pickups that it will build in Pontiac, Mich., next year.

These trucks will be fitted with an Impco natural gas fuel system by PAS Inc. of Troy, Mich.

Once this program has been successfully completed, Chevrolet plans to offer compressed natural gas/ liquid propane gas conversion -ready engines as special equipment options on the 5.7-liter and 7.4-liter V-8s, Henyon told National Truck Equipment Association members at a Livonia, Mich., meeting.

The engines will be available in two-wheel drive three-quarter and one-ton series pickups with 8,600-and 9,000-pound gross vehicle weight ratings; one-ton G-30 extended vans; G-31 commercial cutaway vans; "P" model trucks used in delivery and "C" model commercial chassis cabs.

The engines will be certified by GM's Engine Division in Brighton, Mich., for conversion to natural gas by aftermarket upfitters like Impco.

GM will warranty them for aftermarket conversion.

The internals of the engines will initially only be modified to make them run more efficiently on alternate fuels and to make sure they don't negate warranties.

GM will let customers modify and mount their own fuel tanks.

Company sources said GM hopes to offer in-house installation of the fuel tanks by the mid-1990s.

Chevrolet plans to offer dual fuel engines that allow a driver to switch between compressed natural gas or liquid propane gas and gasoline to minimize the issue of driving range between fill- ups.

By the mid 1990s, Chevrolet plans to offer compressed natural gas engines as regular production options, according to Henyon.

Here, the engine componentry will be specifically designed to maximize performance and economy while operating only on gaseous fuels.

GM sources said that at least one additional engine, such as the 4.3 liter V-6, will likely be included in the program by then.

Chevrolet is using higher gvw trucks and larger displacement engines to minimize performance and payload-carrying drawbacks that still arise with compressed natural gas engines, according to Henyon.

With current technology, relatively large cylinders are required for trucks to have an adequate driving range between fill- ups.

The higher gvw models are designed to minimize the potential effect on payload carrying-capability posed by the weight of the onboard fuel tanks.

Natural gas engines also have a potential for power loss under some operating conditions because the gaseous fuel displaces some of the air needed for combustion.

The trucks' more limited range between fill- ups makes them initially best suited to commercial, utility and municipal fleet operation.

Such vehicles tend to operate on the same daily schedule and fuel up from a single location. That allows operators to determine their mileage and fuel requirements and the size fuel tanks they need.

Fueling at a central location also allows trucks to maximize the use of expensive compressor equipment required for refueling, according to Henyon.

Natural gas has many emissions and availability benefits that make it an attractive alternate fuel.

On an energy-equivalent basis, it costs the equivalent of about half that of a gallon of gasoline, according to Eric Heims of Pacific Gas & Electric in San Francisco. The price advantage could change with road user taxes.

Burning natural gas also emits fewer hydrocarbons and offers the potential to cut carbon monoxides.

Because natural gas is stored in pressurized fuel tank cylinders, it doesn't generate evaporative emissions like those from gasoline. And it isn't as corrosive as other alternate fuels like methanol, providing service maintenance advantages such as fewer oil and spark plug changes ad longer engine life.

GRAPHIC: Picture, Pacific Gas & Electric plans to have 40 natural gas fueling stations, which use conventional-looking pumps, in California by the end of 1992.

15TH STORY of Level 1 printed in FULL format.

Chicago Tribune

July 11, 1990, Wednesday, CHICAGOLAND NORTH EDITION

SECTION: NEWS; Pg. 14; ZONE: C

LENGTH: 78 words

HEADLINE: UPS to convert trucks in L.A. to natural gas

BYLINE: From Chicago Tribune wires

DATELINE: LOS ANGELES

BODY:

The United Parcel Service said Tuesday that it plans to convert its 2,700 delivery trucks in the smog-choked Los Angeles area to run on cleaner-burning natural gas in the first major step by a company to comply with strict new vehicle-emissions laws here. The action by UPS, which operates one of the nation's largest truck fleets, was applauded by local officials as evidence that the region's new anti-smog rules, the nation's toughest, can be met on schedule.

VEHICLE; ALTERNATIVE; CHANGE; POLLUTION; ENVIRONMENT

FUELS - CREATIVE.

10TH STORY of Level 1 printed in FULL format.

The Los Angeles Business Journal;

August 13, 1990

SECTION: Vol 13; No 33; Sec 1; pg 4

LENGTH: 826 words

HEADLINE: Scrap Fever: Unocal's Effort to Get Jalopies Off Southern California Roads Catches Fire

BYLINE: Chip Jacobs

DATELINE: Los Angeles; CA; US

BODY:

Unocal Corp.'s decision last spring to convert smog-belching junkers into scrap metal has attracted more than just the eye of skeptical environmentalists and envious public relations executives.

Since the Los Angeles-based oil company began the $ 5 million program in April, the owners of roughly 5,000 pre-1971 cars have exchanged their vehicles for $ 700 each. The brisk public response, combined with new sources of funds, has prompted Unocal to revise the total number of cars it will scrap from 7,000 to 8,400.

Pre-1971 autos emit up to 30 times as much pollutants as new cars do.

Even the South Coast Air Quality Management District, which has tightened the regulatory screws on the petroleum industry during recent years, pledged $ 100,000 to Unocal's pilot project Aug. 3.

"Having regulatory agencies join private enterprise to do something immediate about air pollution is a hell of a deal," said Roger Beach, Unocal's president of refining and marketing. He said public reaction to the program has exceeded company expectations.

"We've tried to demonstrate to people and other companies that there are innovative ways to clean up the air ourselves. We've even had people sending in $ 700 checks saying, 'Scrap one for me.'"

Unocal is riding its own environmental bandwagon, even though it still has not come out with a reformulated gasoline like Arco's EC-1. In June, the company announced it was sending a fleet of six tow trucks to assist drivers with car problems on Southland freeways every day. To date, the tow trucks, equipped with spare gas, air, water, have made 400 to 500 "assists" a week as part of the Unocal's "76 Protech Patrol."

The impetus for the patrol was twofold, Unocal officials say. Studies by Caltrans have shown that 70 to 80 percent of freeway tie- ups are caused by disabled vehicles and that idling cars emit more pollution than moving vehicles. Also, the tow trucks, which cost roughly $ 17,000 each, are hoped to generate potential new Unocal customers.

The Los Angeles Business Journal (c) 1990 UMI/Data Courier

Unocal last month also began offering free smog checks to pre-1975 cars at 120 Protech stations. If the driver, eligible for smog checks in years not required by the Department of Motor Vehicles, fails the test, he or she is given a free low-emission adjustment. Unocal picks up 70 percent of the test and adjustment cost, averaging $ 55, with the Unocal dealers paying the rest. Company officials say they have already received 4,000 calls about the smog fighter program.

But it is Unocal's scrap-for-cash deal that has gotten the most notoriety and private sector support.

Last May, the California Community Foundation, a San Francisco-based non-profit group, announced it would donate $ 70,000 to Unocal's scrap program if the oil company matched that amount. Unocal did, enabling the removal of 200 additional cars.

Also jumping on board was the Ford Motor Co., which said last month it would give $ 700,000 to the program -- enough to scrap 1,000 cars. Ford's Southern California dealers followed suit, agreeing to donate an additional $ 63,000 to Unocal.

First Interstate Bank sweetened the pot. The Los Angeles-based bank began offering reduced downpayments and interest rates for auto loans, provided the borrower join Unocal's scrap program and agree to buy cars made after 1981.

Unocal, which takes the used cars to scrap yards owned by Hugo Nu Proler in Vernon and at Terminal Island, says as much as 6 million to 8 million tons of smog-forming hydrocarbons will be removed as a result of SCRAP -- South Coast Recycled Auto Program. Hugo Nu Proler pays Unocal less than $ 50 for each car, which is then junked and recycled to metal markets in Europe and Asia.

Obviously, the SCRAP program won't had much effect on the $ 11.4 billion (1989 revenues) company's profits. The company earned $ 165 million on revenues during the second quarter of 1990.

"SCRAP isn't doing much for the bottom line in the short term," Beach added. "Hopefully we are buying a perception by the public we care about the environment. In the long pull, it can't do anything but help. The feedback has been amazing."

One oil company analyst said Unocal's program, like Atantic Richfield's decision to introduce a smog-cutting leaded gasoline last August, shows how critical the environmental factor has become for oil companies, more than one year after the Exxon Valdez spill.

"The goodwill Unocal has engendered by its public lesson in environmental civics have burnished the impression that it is a very good corporate citizen," said Bernard J. Picchi, managing director of Salomon Bros. in New York. "That can only help the company in the long run, because firms that conduct their operations without being mindful of the environment are asking their shareholders to take a blind gamble."

Both Picchi and Beach say Unocal's efforts are also a gentle reminder that private sector approaches to air pollution can be as effective as more government measures.

THE WHITE HOUSE

WASHINGTON

November 14, 1990

MEMORANDUM FOR THE PRESIDENT

THROUGH: **CHRISS WINSTON** CW

FROM: **MARY KATE GRANT** MKG

SUBJECT: **CLEAN AIR BILL SIGNING CEREMONY**

I. SUMMARY

Attached are draft remarks for the Clean Air Bill signing ceremony, to be held on Thursday, November 15, 1990 at 2:30 p.m. Leaders from conservation groups, industry and government will attend the East Room event.

II. DISCUSSION

Your remarks (10 minutes/cards) will thank all those involved, outline the legislation, and emphasize the market-oriented approach taken by the bill.

Canadian Ambassador Derek Burney will be present, as will Secretaries Lujan and Watkins; Attorney General Thornburgh; and Administrators Reilly and Engeleiter. Also, Governor Madeleine Kunin of Vermont will attend.

Grant/Cawley/Simon
November 14, 1990
9:00 p.m.
A:CLEANAIR

PRESIDENTIAL REMARKS: CLEAN AIR BILL SIGNING CEREMONY
THE EAST ROOM
THURSDAY, NOVEMBER 15, 1990
2:30 P.M.

Thank you all very much. I'd like to welcome the Ambassador from Canada, Derek Burney, who represents his countrymen's concern for our common environment and their pleasure that America has enacted this historic agreement into law.

It's a pleasure to have several members of the Cabinet here: Secretaries Lujan and Watkins and Attorney General Thornburgh; as well as Administrators Reilly and Engeleiter. Also, I see Governor Madeleine Kunin of Vermont is here. Again, welcome.

Although Thanksgiving is still a week away, **today** is truly a **red-letter day** for all Americans. Today, we add a long-awaited and long-needed chapter in America's environmental history -- **and begin a new era for clean air. //**

This last weekend, I spent some pleasant hours in the Catoctin Mountains of Maryland, at Camp David. Saturday and Sunday were clear and crisp -- bright sunshine and fall colors. Great to get out in the woods, and go for a run. ((Pumped a little iron on the Arnold Schwarzenegger Memorial Leg Press.)) But no American should have to drive out of town to breathe clean air. Every city in America should have clean air. **And with this legislation, we will.//**

I first made a commitment to comprehensive clean air legislation as a Presidential candidate. Soon after coming into

office, we developed a comprehensive clean air proposal. We consulted with Republicans and Democrats in the Congress, with environmentalists and with representatives of industry, because I believed it was time for a new approach. And it was time to break the logjam that hindered progress on clean air for thirteen years.

And so I told our best minds, assembled that morning a year and a half ago: "Every American expects and deserves to breathe clean air. And as President, it is my **mission** to guarantee it: for this generation, and for generations to come."

Well, as we used to say in the Navy, **"Mission defined. Mission accomplished."// Today, I am proud to sign the Clean Air Act of 1990. //**

This landmark legislation will reduce air pollution each year by 56 billion pounds -- **that's 224 pounds for every man, woman and child in America.** It will go after the three main types of air pollution: acid rain, smog, and toxic air pollutants.

This bill will cut emissions that cause acid rain **in half** -- and permanently cap them at these new levels. It will reduce pollutants that cause smog in our cities -- **by 40 percent** -- so that by the year 2000, over one hundred major American cities with poor air quality will have safer, healthier air. And it will cut dangerous air toxics emissions **by 75 percent using new technologies.** And by the next decade, its alternative fuel provisions will help reduce our dependence on foreign oil.

This bill means cleaner cars, cleaner power plants, cleaner factories and cleaner fuels -- this bill means a cleaner America. Virtually **every person** in every city and every town will enjoy its benefits. //

This legislation isn't just the centerpiece of our environmental agenda. **It is simply the most significant air pollution legislation in our nation's history -- and it restores America's place as the global leader in environmental protection.**

1990 is now a milestone year for the environment. I also hope that it will be remembered as an important year for environmental **cooperation.**

There were several members of my Administration who saw to it, through thick and thin, that this bill got to my desk: **EPA Administrator William Reilly, Energy Secretary Watkins, Bill Rosenberg from EPA and from my staff, Roger Porter and Boyden Gray.** What a great job they did. //

I also want to thank the many Senators and Members of Congress from both sides of the aisle -- many of you are here today, others couldn't be with us -- but the list is too long to recognize each of you personally. So again, thank you for your commitment and dedication -- as well as the Governors and the experts from local governments who were all so instrumental in building bipartisan support for this legislation. We've met with business leaders, who saw stewardship to the environment as a key to long-term economic growth; and we've met with academics and

innovative problem-solvers from every side, who have built the foundation for this approach.

Let me also commend the environmental groups we've met with -- especially the Environmental Defense Fund, under the leadership of Fred Krupp ((other names possible)) -- for bringing creativity to the table to end the stalemate.

We all had to make tough choices. Some said we went too far -- others said not far enough. But despite our differences, we all agreed on the goal: clean air for all Americans. We agreed on the means: a new Clean Air Act.

And we all agreed: it was time to take a new approach. This bill is both ambitious in its goals and innovative in its methods. For the first time, we've moved away from the red-tape bureaucratic approach of the past. The old tradition of command and control regulation isn't the answer. By relying on the marketplace we can achieve the ambitious environmental goals we have as a country in the most efficient, cost-effective way possible. We will have to take advantage of the innovation, energy, and ingenuity of every American -- drawing local communities and the private sector into the cause. It is time for a new kind of environmentalism -- driven by the knowledge that a sound ecology and a strong economy can coexist.

The approach in this bill balances economic growth and environmental protection. The approach is comprehensive, cost-effective, and most of all, it will work. The first major pollution reductions are where we need them most.

It offers incentives, choice and flexibility for industry to find the best solutions -- all in the context of continued economic growth. The bill is balanced -- it will stimulate the use of natural gas from the wells of Texas and Louisiana, fuels made from the farms of Iowa, Illinois and the great Midwest, and cleaner, low-sulfur coal from the hills of West Virginia to the Rocky Mountain states. This bill can make America the global leader in developing a new generation of environmental technologies to which the world is now turning.

But it does more. The legislation sets reasonable deadlines for those who must comply, but once the deadlines pass, penalties are severe. America's heritage is precious. We will not turn our backs or look the other way. That means polluters must pay.//

And so there is a new breeze blowing -- a new current of concern for the environment. Today marks a great victory for the environment, a day when we have strengthened our clean air statutes -- already the world's toughest. This legislation is not only in America's interest; like so many of the environmental issues that we are working on, this bill is in the interest of people all over the world.

And the new environmental ethos is growing. We see it in community efforts and school involvement across America. And we're seeing it in the innovative response of private industry -- in alternative fuel service stations and electric vehicles. These companies understand: We must pioneer new technology, find

new solutions, and envision new horizons if we are to build a bright future and a better America for our children.

There's an old saying: "We don't inherit the Earth from our parents. We borrow it from our children." We have succeeded today because of a sense of global stewardship, a sense that it is the **Earth** that endures. And that all of us are simply holding a sacred trust left for future generations.

For the sake of future generations, I thank each and every one of your for your commitment to the environment. I am now honored to sign this Clean Air bill into law.

Thank you and God bless you all.

# # #

Grant/Cawley/Simon
November 13, 1990
3:00 p.m.
A:CLEANAIR

PRESIDENTIAL REMARKS: CLEAN AIR BILL SIGNING CEREMONY
THE EAST ROOM
THURSDAY, NOVEMBER 15, 1990
2:30 P.M.

((Acknowledgements))

Although Thanksgiving is still a week away, **today** is truly a **red-letter day** for all Americans. Today, we add a long-awaited and long-needed chapter in America's environmental history -- **and begin a new era for clean air. //**

This last weekend, I spent a few days in the Catoctin Mountains of Maryland, at Camp David. Saturday and Sunday were clear and crisp -- bright sunshine and fall colors. Great to get out in the woods, and go for a run. ((Pumped a little iron on the Arnold Schwarzenegger Memorial Leg Press.)) But no American should have to drive to the top of a mountain to breathe clean air. Every city in America should have air as clean as a mountaintop. **And with this legislation, I'm hoping we will.//**

I first made a commitment to comprehensive clean air legislation as a Presidential candidate. Then, early in the Administration, I called together Republicans and Democrats, business executives and conservationists to make a point: it was time to break the logjam that hindered progress on clean air for thirteen years.

w/ talking points

It was time to enlist the innovation, energy and ingenuity of every American -- to create a national sense of **commitment** to **conservation.**

6-12-89 speech

And so I told our best minds, assembled that morning a year and a half ago, this: "Every American expects and deserves to breathe clean air. And as President, it is my **mission** to guarantee it: for this generation, and for generations to come."

Well, as we used to say in the Navy, **"Mission defined. Mission accomplished."// Today, I am proud to sign the Clean Air Act of 1990. //**

WH Fact Sheet

This landmark legislation will pull 56 billion pounds of pollution each year from the air -- **that's 224 pounds for every man, woman and child in America.** It will go after the three main causes of air pollution: acid rain, smog and toxic air pollutants.

This bill will cut emissions that cause acid rain **in half -- by 10 million tons** -- and permanently cap them at these new levels. It will reduce pollutants that cause smog in our cities **-- by 40 percent** -- so that by the year 2000, over one hundred major American cities will have clean, healthy air. It will cut dangerous air toxics emissions **by up to 90 percent using new technologies.** And over the next decade, its alternative fuel provisions will reduce our dependence on foreign oil by at least **800,000 barrels of oil a day. //**

John Kasper EPA 382-5589

This bill means cleaner cars, cleaner power plants, cleaner factories and cleaner fuels -- this bill is good news for America. And the benefits of this Clean Air bill will affect virtually **every person** in every city and town in America. //

This legislation isn't just the biggest environmental bill of our Administration. **This is simply the most significant air pollution legislation in our nation's history. //**

My hope is that 1990 will be known as a milestone year for the environment. I also hope that it will be known as an important year for environmental **cooperation.**

There were several members of my Administration who who saw to it, through thick and thin, that this bill got to my desk: **EPA Director William Reilly, Energy Secretary Watkins, and my domestic policy advisor, Roger Porter.** What a great job they did. //

And I'd also like to thank the Congressmen and Senators, from both sides of the aisle ((names?)). As well as the Governors and the local governments who were all so instrumental in building bipartisan support for this legislation. We've met with business leaders, who saw stewardship to the environment as a key to long-term economic growth; and we've met with academics and innovative problem-solvers from every side, who have built the foundation for this approach.

Let me also commend ((names of environmental groups?)) for bringing creativity to the table to end the stalemate.

We all had to make tough choices. And while some said we went too far -- others said not far enough. **But despite our differences, we all care about clean air.**

And we all agreed: it was time to take a new approach. And so, the bill is as **ambitious** in its **goals** as it is **innovative** in

its **methods.** For the first time, we've moved away from the red-tape bureaucratic approach of the past -- not with over-regulation but with better regulation. These standards are tough ones, but they employ **market-oriented strategies** -- using industry to the advantage of the environment -- to enact **efficient, effective** legislation. Now we know: we can establish a new kind of environmentalism, **one where a sound ecology and a strong economy go hand in hand. //**

The approach is comprehensive, cost-effective, and most of all, **it will work.** It seeks major pollution reductions, where we **most** need them, **first.**

It offers incentives, choice and flexibility for industry to find the best solutions -- all in the context of **continued economic growth.** This bill contains an emissions trading plan in order to allow reduction targets to be met at a fraction of the cost it would have been otherwise. In short, it taps the power of the marketplace and the community -- better than any other environmental bill **in history.//**

But it does more. The legislation sets reasonable deadlines for those who must comply, but once the deadlines pass, penalties are severe. **Because America is too precious for us to turn our backs on those who think otherwise. Polluters must pay. //**

And so there is a new breeze blowing -- a new current of concern for the environment. We see it in community efforts and school involvement across America. And we're seeing it in the innovative response of private industry. Take a look at the

Arco, Marathon and Exxon stations offering cleaner fuels. Earlier this month Amoco opened a new alternative fuels service station right down Pennsylvania Avenue here in Washington. We're seeing compressed natural gas vehicles from GM, as well as flexible fueled vehicles from GM and Ford, and we look forward to Ford's electric vehicles in the near future. These companies understand: We must pioneer new technology, find new solutions, and envision new horizons if we are to build a bright future and a better America for our children. **We must -- and we will.** //

I've said many times, when talking about other issues like fighting the flow of drugs or stopping the menace of crime, that the most fundamental obligation of the government is to **protect the people** -- their health, their safety, and their ideals and values.

One of the greatest conservationists of this century and perhaps my favorite President, Theodore Roosevelt, understood this. He called our lands and wildlife "the property of unborn generations." This clean air bill will mark a new chapter in the tradition of protecting future generations.

That's where you come in. Everyone with us today has made a commitment to a cleaner and safer world for our children. For that, I thank each and every one of you -- for your expertise, your dedication and for your sacrifice over the many months that went into the passage of this legislation. With that said, I am now **honored** to sign this Clean Air bill into law. Thank you and God bless you all.

((Sign bill.))

# # #

the cause of conservation has been done by two men, James Garfield and Gifford Pinchot. I saw them work while I was President, and I can speak with the fullest knowledge of what they did. They took the policy of conservation when it was still nebulous and they applied it and made it work. They actually did the job that I and the others talked about. I know what they did because it was something in which I intensely believed, and yet it was something about which I did not have enough practical knowledge to enable me to work except through them and largely as the result of following out on my part their initiative. They did not confine themselves only to speaking. . . . They translated their words into actions; they actually did what we were all saying ought to be done; and our profound respect and appreciation is due them for their work. (At Harvard University, Cambridge, December 14, 1910.) *Mem. Ed.* XV, 558; *Nat. Ed.* XIII, 603-604.

CONSERVATION — PRINCIPLES OF. Now there is a considerable body of public opinion in favor of keeping for our children's children, as a priceless heritage, all the delicate beauty of the lesser and all the burly majesty of the mightier forms of wild life. We are fast learning that trees must not be cut down more rapidly than they are replaced; we have taken forward steps in learning that wild beasts and birds are by right not the property merely of the people alive to-day, but the property of the unborn generations, whose belongings we have no right to squander; and there are even faint signs of our growing to understand that wild flowers should be enjoyed unplucked where they grow, and that it is barbarism to ravage the woods and fields, rooting out the mayflower and breaking branches of dogwood as ornaments for automobiles filled with jovial but ignorant picnickers from cities. (*Outlook,* January 20, 1915.) *Mem. Ed.* XIV, 567; *Nat. Ed.* XII, 425.

CONSERVATION—PURPOSE OF. Surely our people do not understand even yet the rich heritage that is theirs. There can be nothing in the world more beautiful than the Yosemite, the groves of giant sequoias and redwoods, the Canyon of the Colorado, the Canyon of the Yellowstone, the Three Tetons; and our people should see to it that they are preserved for their children and their children's children forever, with their majestic beauty all unmarred. (1905.) *Mem. Ed.* III, 293; *Nat. Ed.,* III, 107.

———. We do not intend that our natural resources shall be exploited by the few against the interests of the many, nor do we intend to turn them over to any man who will wastefully use them by destruction, and leave to those who come after us a heritage damaged by just so much. The man in whose interests we are working is the small farmer and settler, the man who works with his own hands, who is working not only for himself but for his children, and who wishes to leave to them the fruits of his labor. His permanent welfare is the prime factor for consideration in developing the policy of conservation; for our aim is to preserve our natural resources for the public as a whole, for the average man and the average woman who make up the body of the American people. (Before Progressive National Convention, Chicago, August 6, 1912.) *Mem. Ed.* XIX, 405; *Nat. Ed.* XVII, 294.

CONSERVATION—ROOSEVELT'S POLICY ON. I acted on the theory that the President could at any time in his discretion withdraw from entry any of the public lands of the United States and reserve the same for forestry, for water-power sites, for irrigation, and other public purposes. Without such action it would have been impossible to stop the activity of the land thieves. No one ventured to test its legality by lawsuit. (1913.) *Mem. Ed.* XXII, 412; *Nat. Ed.* XX, 353.

CONSERVATION AND PUBLIC RIGHTS. The rights of the public to the natural resources outweigh private rights, and must be given its first consideration. Until that time, in dealing with the national forests, and the public lands generally, private rights had almost uniformly been allowed to overbalance public rights. The change we made was right, and was vitally necessary; but, of course, it created bitter opposition from private interests. (1913.) *Mem. Ed.* XXII, 456; *Nat. Ed.* XX, 393.

CONSERVATION OF HUMAN LIFE. Let us remember, also, that conservation does not stop with the natural resources, but that the principle of making the best use of all we have requires with equal or greater insistence that we shall stop the waste of human life in industry and prevent the waste of human welfare which flows from the unfair use of concentrated power and wealth in the hands of men whose eagerness for profit blinds them to the cost of what they do. (Before Ohio Constitutional Convention, Columbus, February 21, 1912.) *Mem. Ed.* XIX, 165; *Nat. Ed.* XVII, 120.

CONSERVATION. *See also* ARBOR DAY; AUDUBON SOCIETIES; ELECTRIC POWER; FLOOD

TALKING POINTS
ON AGRICULTURE
THE 1990 FARM BILL

(1) Congress made many of the right choices when deciding how to achieve farm savings. The most notable is the "triple-base" option originally authored by Congressmen Stenholm and Roberts. Triple base flexibility will give producers an opportunity to break out of the traditional farm program "straitjacket" which bound them to produce the same crop year after year.

(2) The triple base option allows farmers to plant for the market on some acres instead of for the government.

(3) The farm bill builds and improves on the environmental provisions of the 1985 Act. Sodbuster, swampbuster, conservation compliance and the Conservation Reserve Program (CRP) have all been extended and improved.

(4) The farm bill extends important nutrition assistance programs such as food stamp and the Temporary Emergency Food Assistance Program (TEFAP). DATE??

(5) For the first time, a forestry title has been included in a farm bill. We are pleased that Congress approved the Presidential tree planting initiative known as "America the Beautiful" as part of the forestry title.

(6) In the area of farm credit, Congress approved the Administration initiative to limit abuse of farm debt relief laws and continue the move toward partnership with the private sector to extend farm credit.

GOOD NEWS

(1) Farmer's net cash income is forecast to be $59-63 billion in 1990, about 10 percent above last year. Net farm income is expected to grow about 5 percent from 1989. Growth in commodity sale is pushing farm income to record highs this year despite mounting expenses and forecast of declining prices.

(2) Farm income improved significantly since the 1985 farm bill took effect. Net cash income reached record high levels in 3 of the last 4 years, and a new record could be set in 1990.

(3) Even after accounting for inflation, real incomes in agriculture are only exceeded in recent history by the boom years of the early 1970's.

(4) Farm equity, which measures the wealth of the Nation's farms, has increased by $136 billion since 1986.

(5) In 4 years, 55 percent of the equity lost during the downturn in the farm economy has been recovered.

(6) Agricultural asset values have increased for 4 consecutive years, averaging a 4.3 percent gain annually. The gains are due mostly to rising real estate values.

(7) Farm debt has been reduced by one-third since 1982. The decline reflects debt restructuring, debt aversion, and highly favorable income conditions in recent years.

(8) Farm debt levels are now much more sustainable by farm income. Equity gains will also help cushion farmers.

(9) Since 1986, the share of financially vulnerable farmers has been halved to 5 percent of the Nation's 2.1 million farms. The share of farmers with a favorable financial position, able to take advantage of investment or expansion opportunities, has increased from about 45 percent to nearly 65 percent.

(10) Rising farm sector asset values, returns on assets, and cash flow continue to strengthen farmers' financial position.

(11) For 1989, U.S. farmer cooperatives reported the second highest net income and third highest sales in history. Net income less losses was nearly $1.9 billion, 12.3 percent better than $1.7 billion in 1988. Net income was highest at $1.94 billion in 1980.

(12) Approval of the budget agreement is expected to improve farm income by $1-2 billion per year due to lower interest and inflation rates.

GRADY 11/1

w/ this bill, Calif still be a model for nation; allows room for their own program.

one reason persistence of people like Pete Wilson - be [illegible]

Landmark

Wouldn't happen w/o George Bush

Biggest enviro. accompl. ever

going to mean:

cleaner cars
plants
factories
fuels

① size & scope of reductions

reduce by 86 %.

no one ever attempted before.

major dem. pol. victory

fave to orig. [illegible] bill

we sent up.

~~– [illegible] [illegible] bill~~

~~we [illegible] [illegible] Senate~~

Acid rain 100 fare
Air tox 90 %
Attain for 100

② brand new era in regul.

sophisticated, learned from past.

Haven't abandoned objectives – – in fact, increased.

Shows domestic policy

regional stalemate

– (this is almost [illegible])

Sound energy

reduce dep. foreign energy

prom. consev. in elec util sector

another step toward energy security

could cite global warming

Brownbr agenda

we recog. some nat'l treas too precious to risk.
Cal coast one of them.
Against a lot of pressure — no offshore drilling. natural treasure
99% for Cal coast until > 2000

CAN'KE3

Superfund - dramatically upgrade enforce
we are adding 500 new enf. pers. @ EPA
sure polluter pays

CLEAN AIR

Crisby x 4184 → LISA GARMAN
DeLand (Suzy) 5080 rm. 154
Dale 5750 lunch?
BOYDEN

→ If we wait til 3rd, they'll take all credit.
should indicate intent to sign.
get out of Wash., make c3 ud.

[Hed] descrip of bill
what we like (& don't)
who's there (bus.? enviros?)

☆ MK – may make sense for Friday (9 days to sine) @ Wilson

Bland – nobody's done a line by line

On 3rd (Sat) – get out in advance of signing, embrace bill
↳ in L.A.?

Bill Rosenberg @ CRH → 382-7400 / 475-7155 FAX
We've seen ½ the language – expect other half tonight
Ref Fayerwether (coord. review of conf. report)
WILL VOTE THURS or FRI

Rosenberg's Chief: TOM KIERNAN 382-7400

looks extraordinarily like POTUS' architecture
[[major domestic policy victory.]]

x % of our imports – we used to import from Iraq / Kuwait (Reilly's used the #)

Alt. fuels
reformul gas
acid rain provision (with trading permits)

☆ Key off POTUS' yr. ago challenged Cong. & Am. people
→ responded w/ bill he sent up.
so did industry & consumers – bought that gasoline; ARCO came out w/ clean gasoline
PEOPLE ARE READY.

WILL SAVE 800,000 – 1 mil barrels a day of oil saved from CAA
→ BOYDEN, ENERGY

Fat Am – Lovejoy @ Smithsonian, on Amazon

[redacted]

(not just Congress)
happening in marketplace, consumers,

GM – resp. by prod. ref. gas
Ford & GM methanol figure
elec. car prototype
UPS – conv. to nat. gas

CHANGES! R&D @ U. Nebraska (new compounds from corn) alt. fuel

State of Cal. – Gov. Deuk. responded
EPA – backup plan to assure long-term confid. in region.

call Chuck Imbrecht
Cal Energy Commission

*AMOCO to sell in Washington
Marathon in Detroit

☆ Important for enviro, yes – but also energy (800–1 mil barrels/day) – x %
(reduced dep. for oil)
Subst. Am-grown prods. for imported oil nat gas, corn

SAT- CLEAN AIR

[illegible] . Bryden-alt-fuels.

See Farm Bill Bank on 860

Budget provides for alt. fuels

not rely just on foreign oil fields -- but corn fields

"If you drive it... [illegible] it will run."

Emily

Thousand Oaks in CA (near L.A.) — N.W.

last yr invested 100K in urban forestry progr.

(what every commun. ought to do)

Mrs. Gooch's

just opened a store, gave away 1,000 oak seedlings

in Forestry title of the Farm Bill — got $70 mil (of 175)

got complete authorization

St. Foundation $20 million

enough $ to begin our coalition

national crusade

Back in Washington, an Amoco sta. selling gas that virtually meets '95 standard
(" 92)

PORTER

Can claim leadership
(be magnanimous to leadership in general)
((MITCHELL, BACCHUS, CHAFFEE, DURENBURGER)) (S)
SIMPSON
((ANGELL ~~WAXMAN~~ LENT MADIGAN)) (H)

Δ^2

--though I have to wonder why, after an 8 yr. stalemate & 1½ yrs work, Corp. couldn't get me a copy of the bill...

Forbes got it...

Boyden

Trees - link to C.A.A.
⇒ in reducing acid rain & ozone, will help trees
trees will help C.A.A.

Alt. fuels - monumental change. A revol. in way we approach fuels, transp.

White bill didn't
not pollut. benes. as great or greater
cost lower than orig. estim.

Boyden - ARCO's gas, AMOCO (just last Thurs) announced reformul. gas for D.C. — 4-5 yrs. jumping the gun!
EXXON — for a few pennies gal / more

Petrus' Anticipatory compliance w/ CAA
entering new era of coop. work on enviro.
will mean reduced costs to everyone.

Timely - new compet. in fuel mkts / diverse sources gas grain
reduce imports by x %

w/ this kind of activity we will reduce regul. burden for all kinds of bus.

as Texas cuts ... did we do a ... bring the ... talk

Executive Office of the President

90 OCT 1 P12:

Office of Legislative Affairs

FACSIMILE TRANSMITTAL SHEET

NUMBER OF PAGES INCLUDING COVER _____

DATE _____

TO Mark Lang

FAX NUMBER _____

OFFICE NUMBER _____

COMMENTS per our discussion —
Thanks

FROM Becky Anderson

FAX NUMBER _____

OFFICE NUMBER _____

186439

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INSULAR AND INTERNATIONAL AFFAIRS

Congress of the United States
House of Representatives
Washington, DC 20515

October 26, 1990

Fred McClure

Beth — speech has not yet come through — pls. have Fred watch for it — including where it is to be given. I'm not sure it can be worked into the remarks. —

The Honorable George Bush
The President
The White House
Washington, D.C. 20255

Dear Mr. President:

Several community leaders in my District have requested that if the location of your November 3rd event in California is California Lutheran University in Thousand Oaks, you mention a community campaign entitled "Under One Roof".

The program is one which I strongly endorse and support and feel it is among the very finest examples of your 1,000 points of light.

In 1981, local citizens, concerned about the withdrawal of federal funds from social service groups organized a workshop to identify the needs of the residents and to find out how the community could help. Over 25 agencies and several referral agencies responded and the conclusion was that the major need was a centrally located and financially acceptable place for the volunteers to work.

Following almost a decade of community involvement, a permanent Center opened in 1988, serving 30,000 individuals in its first year of operation. It now houses 22 nonprofit agencies and five government agencies. Because the building is being paid for up-front, there is no mortgage and the 22 non-profit agencies have rent-free space which frees up much needed dollars to go directly to community services.

The total project cost is $2.6 million. At this time the Under One Roof capital campaign has received cash and pledges totalling $1.9 million. Support has come from every segment of the community and with your mention of the fine work that Under One Rood has accomplished, I am confident that many others will find the time to contribute to this most worthwhile cause.

Thank you.

Sincerely,

Elton Gallegly

Elton Gallegly
Member of Congress

tion Agency] to develop rules like those we're employing on acid rain to allow auto and fuel companies to trade required reductions in order to meet the standard in the most cost-effective way. Our challenge is to develop an emissions trading plan; their challenge is to meet the standards.

The third leg of our proposal is designed to cut all categories of airborne toxic chemicals by three-quarters within this decade. Our best minds will apply the most advanced industrial technology available to control these airborne poisons. The very best control technology we have will determine the standard we set for those plants. And until now, because of an unworkable law, the EPA has been able to regulate only 7 of the 280 known air toxics. The bill I am proposing today will set a schedule for regulating sources of air toxics by dates certain. In addition, it will give the dedicated people of the EPA the right tools for the job, and it will make state-of-the-art technology an everyday fact of doing business. And that's the way it should be.

In its first phase, this initiative should eliminate about three-quarters of the needless deaths from cancer that have been caused by toxic industrial air emissions. And we plan a second phase to go after any remaining unreasonable risk. People who live near industrial facilities should not have to fear for their health.

And for 10 years, we've struggled to engage a united effort on behalf of clean air, and we're now on the edge of real change. Nineteen eighty-nine could be recorded as the year when business leaders and environmental advocates began to work together, when environmental issues moved out of the courts, beyond conflict, into a new era of cooperation. And this can be known as the year we mobilized leadership, both public and private, to make environmental protection a growth industry and keep our ecology safe for diversity. The wounded winds of north, south, east, and west can be purified and cleansed, and the integrity nature can be made whole again. Ours is a rare opportunity to reverse the errors of this generation in the service of the next. And we cannot, we must not, fail. We must prevail. I ask for your support. We need your support to make all of this into a reality.

Thank you all, and God bless you, and thank you very much for coming.

Note: The President spoke at 11:15 a.m. in the East Room of the White House.

White House Fact Sheet on the President's Clean Air Plan
June 12, 1989

Fulfilling a major campaign commitment, President Bush today proposed a comprehensive program to provide clean air for all Americans. The President's plan calls for the first sweeping revisions to the Clean Air Act since 1977 and represents the first time an administration has put forward a proposal since that time. The President's plan is designed to curb three major threats to the Nation's environment and to the health of millions of Americans: acid rain, urban air pollution, and toxic air emissions.

While emissions of some pollutants—such as sulfur dioxide, urban ozone, and carbon monoxide—have been reduced since passage of the 1970 law, progress has not come quickly enough. The President's plan will dramatically accelerate the pace of pollution reduction and put America on the path toward markedly cleaner air by the end of the century.

The President's plan will:

- Cut sulfur dioxide emissions virtually in half by the year 2000. The plan calls for a 10 million ton reduction in SO_2 and a 2 million ton cut in nitrogen oxide (NO_x) emissions, for a total reduction of 12 million tons in acid rain-causing emissions.
- Bring all cities currently not meeting the health standards for ozone and carbon monoxide into attainment. Most cities will attain the standard by 1995, and the plan is designed to ensure attainment in all but the most severely impacted cities by the year 2000.
- Require factories and plants emitting toxic compounds into the air to employ the best technology currently available in order to achieve in the near term a cut estimated at 75 to 90 percent in pollutants suspected of causing cancer.

Taken together with efforts to reduce cancer-causing emissions from cars and trucks, it is estimated that the plan will eliminate in its first phase over three-fourths of the annual cancer deaths that air toxics are suspected of causing.

Fundamental Principles

Five goals underlie the President's clean air proposals and the means for accomplishing them:

- *Protecting the Public's Health.* The goal of the legislation is to prevent public exposure to cancer-causing agents and to protect those citizens, especially vulnerable populations—such as the elderly, asthmatics, and children—who live in cities with dirty air that does not conform to national health standards.
- *Improving the Quality of Life.* The proposal will improve the quality of life for all Americans by exercising responsible stewardship over the environment for future generations.
- *Achieving Early Reductions and Steady Progress.* The proposal establishes realistic timetables to meet air quality standards, but contains provisions to cut substantial amounts of air pollution in the near term, while requiring steady progress toward reducing emissions that are harder to control.
- *Harnessing the Power of the Marketplace.* The proposal calls for the use of marketable permits to achieve acid-rain reductions and emissions trading to achieve reductions from the automobile pollution, so as to clean the air to a definite standard while minimizing the burden on the American economy.
- *Employing Innovative Technologies.* The proposal encourages development of clean coal technology, alternative fuel systems for automobiles, and other cost-effective means of using new technology to cut pollution.

The President's plan allows for both environmental protection and economic growth, two longstanding concerns often considered at odds with each other. By incorporating both concerns in his proposal, the President seeks to break the gridlock which has characterized the debate on clean air for the past several years.

ACID RAIN

Highlights

- Requires sulfur dioxide reductions of 10 million tons and nitrogen oxide reductions of 2 million tons.
- Calls for 5 million tons of reductions in the first phase by the end of 1995.
- Establishes a system of marketable permits to allow maximum flexibility for utilities to achieve required reductions in the most efficient and least costly manner.

Background

Acid rain occurs when sulfur dioxide (SO_2) and nitrogen oxide (NO_x) emissions undergo a chemical change in the atmosphere and return to the Earth in rain, fog, or snow.

Approximately 20 millions of SO_2 are emitted annually in the United States, three-quarters from the burning of fossil fuels by electric utilities; 20 percent from other, more widely dispersed industrial sources; and 5 percent from transportation sources. The source of most SO_2 emissions causing acid rain are old (pre-1971) electric powerplants, not subject to the existing Clean Air Act's strict emissions requirements on newer plants. Fifty power plants are responsible for about half of all SO_2 emissions.

Acid rain causes damage to lakes, forests, and buildings; contributes to reduced visibility; and is suspected of causing damage to human health.

Since 1970 the United States has spent $225 billion to control air pollution. American industry spends about $33 billion a year on air pollution controls ($10 billion by the electric utility industry). One result of this expenditure is that SO_2 have been reduced by almost 20 percent since 1977, despite a substantial increase in coal consumption during the period since then.

Any acid rain control program will increase electricity rates for affected utilities. Generally speaking, however, proposals with greater flexibility will result in smaller

rate increases. Thus, the President's proposal to allow trading among utility companies will ensure that protection from acid rain is achieved in a less costly fashion than many of the more traditional "command and control" proposals that have been advanced.

The President's plan represents a major new innovation in harnessing the power of the marketplace to protect the environment.

The President's proposal calls for:

- A reduction of 10 million tons of sulfur dioxide by the year 2000, using a baseline year of 1980 for tons of SO_2 emitted, primarily from coal-fired powerplants.
- A two-phase program in order to ensure early reductions. A reduction of 5 million tons is required during the first phase, by the end of 1995. All dates assume enactment of this legislation by December 31, 1989.
- A 2 million ton reduction of NO_x in Phase II. The plan would allow utilities to trade reductions of NO_x for reductions of SO_2 or vice versa, and thus represents a call for a total reduction of 12 million tons in acid rain-causing pollutants.
- A 3-year extension of the Phase II deadline for plants adopting clean coal-repowering technologies, combined with regulatory incentives designed to smooth their transition into the marketplace. This will allow the United States to make good on the major investment the President has called for in clean coal and will ensure that coal continues to play an important role in America's energy future.
- Freedom of choice in cutting pollution. The plan requires all plants above a certain size in affected States to meet the same emissions standard, but does not dictate to plant managers how the standard should be met. The plan requires the largest polluting plants to make the greatest cuts in pollution. The emissions standard would be set at the rate necessary to achieve 5 million tons in the first phase. The plan envisions a standard of 2.5 lbs. per million BTU, which would affect 107 plants in 18 States. The standard would then be tightened to approximately 1.2 lbs. per million BTU's so as to achieve a 10 million ton reduction in Phase II.
- Maximum flexibility in obtaining reductions. The plan would allow utilities to trade required reductions so that they will be achieved in the least costly fashion. In the first phase, trading would be allowed among electric plants within a State or within a utility system. In addition, full interstate trading would be allowed in Phase II.
- The estimated cost of the President's proposal would be $3.8 billion annually in the second phase and approximately $700 million per year in the first phase. While this represents an increase of over 2 percent by the year 2000 in the Nation's $160-billion-a-year electricity bill, the flexibility built into the President's plan reduces by up to half the cost of various competing proposals mandating the use of specific technologies.

Urban Air Quality

Highlights

- Employs a mix of Federal measures and State initiatives to cut sharply air pollution in our nation's cities. The Federal measures alone will cut emissions that cause urban ozone, the primary contributor to urban air pollution, nearly in half and help bring all cities into compliance with air quality standards.
- Sets realistic timetables for attaining the standards but is designed to ensure steady progress toward meeting that goal.
- Contains new initiatives to promote alternative fuels to reduce pollution from cars, buses, trucks, and motor fuels, and to harness the power of the marketplace to ensure cost-effective reductions.

Ozone

Background

Based on data measured during the summers of 1985 to 1987, over 100 million people live in 81 urban areas across the country that exceed the health standard for ozone. In some cities, such as Los Angeles, the situation is persistent and severe (176 days in violation of the health standard in

1988); in other cities the problem is marginal (Lancaster, PA, is listed as a nonattainment area, but in fact has exceeded the Federal standard for only a few hours in the last 3 years).

The President's plan is designed to ensure that over two-thirds of the cities now out of attainment—all but about 25 cities—come into attainment by 1995. All but the 3 most seriously polluted areas—Los Angeles, Houston, and New York—will come into attainment by the year 2000; and these special cases will be given until 2010, contingent upon a requirement in the President's plan that they show significant annual progress toward cleaning the air and meeting the health standard.

Ozone is formed when volatile organic compounds (VOC's) are mixed with nitrogen oxides (NO_x) in the presence of sunlight. Heat speeds up the reaction, and therefore, concentrations are usually higher in the summer months. Exceedances of the ozone standard (.12 parts per million) grew sharply during the especially hot summer of 1988. If a city exceeds the standard for at least 1 hour on 4 or more days during a 3 year period, it is judged to be "out of attainment" with the standard.

Exposure to ozone causes short term effects, such as shortness of breath, coughing, and chest pains, that are particularly acute for asthmatics, children, and senior citizens. Moreover, ozone is suspected of playing a role in the long-term development of chronic lung diseases and permanent lung structure damage. In addition to health effects, ozone has effects on vegetation, including crops such as soybeans, wheat, and corn; is damaging forests in California; and is suspected as a contributing agent in damage to forests in the southeastern United States.

The major sources of VOC's, the most important ozone precursor, are motor vehicles (40 percent); small area sources, e.g., bakeries, dry cleaners, and consumer solvents (40 percent); large point sources, e.g., petroleum refineries (15 percent); and gasoline refueling (5 percent). Many large point sources have already been required to reduce emissions by roughly 80 percent from uncontrolled levels under the Clean Air Act, and tailpipe emissions from new vehicles have been reduced by 96 percent. The smaller area sources are largely uncontrolled.

VOC and NO_x emissions have decreased nationally since 1978—VOC's by 17 percent and NO_x by 8 percent—despite growth in population, travel, and industrial activity. As a consequence, the trend in ambient ozone concentrations declined by 9 percent from 1979 to 1987. Increases occurred again, however, in the hot summers of 1987 and 1988.

The deadline for meeting urban ozone standards set back in 1977 under the existing Clean Air Act has already expired. Despite this progress in reducing ozone, the health standards have not been met within the deadlines. Without new legislation, the Environmental Protection Agency (EPA) will be required by law to impose Federal Implementation Plans (FIP's) on several major American cities. Courts are, for example, already preparing to impose such requirements on Chicago and Los Angeles. These FIP's could involve extraordinary controls that would sharply curb economic growth and dramatically alter the lifestyles of local residents.

Over the next decade, both EPA and the Federal Highway Administration estimate that growth in automobile use will begin to outstrip reductions occurring from fleet turnover, so that VOC emissions will increase after 2000.

Thus, additional measures to reduce ozone-causing emissions are needed if Americans are to have air that is clean enough to meet the health standard. The President's plan sets forth these additional clean air measures.

Some measures required under current law will help reduce VOC's. These include:

- The effect of tightened automobile and truck-tailpipe emission standards, which will continue to cut emissions as older cars are replaced with new ones;
- The implementation of required inspection and maintenance programs for motor vehicles by State and local governments;
- Volatility controls on gasoline. Earlier this year, the Bush administration required a reduction of gasoline volatility to a standard of 10.5 pounds per square inch;

- Selected stationary source controls on refineries and other factories.

It is estimated that these measures will reduce VOC emissions from baseline levels by 18 percent by 2005. They will bring 23 cities into attainment by 1995, but without additional controls, increased automobile use would cause many of these to slip back out of attainment, leaving 72 cities out of attainment by 2005.

Additional Federal Measures Under the President's Proposal

In an ambitious effort to bring all cities into attainment, the President's proposals call for:

- Further tightening the volatility requirements for gasoline nationwide during the summer months to reduce evaporative emissions which cause ozone formation. This will reduce VOC emissions by an estimated 8 percent.
- Reductions in vehicle evaporative emissions caused by automobile running losses, which will cut VOC emissions by an estimated 4.2 percent.
- Federal regulations to control emissions from treatment, storage, and disposal of hazardous wastes, which will cut VOC emissions by 3.2 percent.
- Providing EPA with the authority to regulate VOC emissions from small sources and consumer products, such as consumer solvents and paints, which EPA estimates will cut VOC emissions by 2.5 percent.
- Tightening hydrocarbon emission tailpipe standards for automobiles by almost 40 percent. The current standard will be tightened to the level soon to be required on all California vehicles (from .41 to .25 grams per mile). This will cut VOC emissions by 0.4 percent.
- A first time requirement for light duty trucks to meet the same tailpipe standard now required of automobiles (.41 gpm). This will cut VOC emissions by 0.2 percent.
- Expanded vehicle inspection and maintenance programs in serious nonattainment areas, which will cut VOC emissions by 1.2 percent.
- Controls to reduce evaporative emissions which occur during refueling of motor vehicles. These stage II controls would require refueling stations to install special nozzles on gasoline pumps in nonattainment areas and are expected to reduce VOC's by up to 2 percent in such areas.
- Provide EPA new authority to issue control technology guidelines (CTG's) to major stationary source emitters (factories and plants). The most cost-effective control guidelines will be issued first. These guidelines are expected to result in a 3.5 percent reduction in VOC emissions.
- Provide for the use of alternative fuels—such as clean burning methanol, natural gas, and ethanol—in the most serious nonattainment areas. The President's plan is designed to ensure that 1 million clean-fueled vehicles per year are introduced into America's most polluted cities by the year 1997. The program will not only reduce VOC emissions by an additional 2 to 5 percent, it will dramatically reduce toxic air emissions, such as benzene, toluene, and xylene.
- It is estimated that these new Federal measures to curb ozone pollution will add $3 to $4 billion in annual costs to the economy when fully implemented.

The Long-Term Clean Fuels Program

The clean fuels program proposed by the President is perhaps the most innovative and far-reaching component of his proposal. It is designed to provide a long-term reconciliation of the environment and the automobile so that Americans can continue to enjoy economic growth, freedom in using their motor vehicles, and clean air.

The administration proposes to replace a portion of the motor vehicle fleet in certain cities with new vehicles that operate on clean burning fuels. In the 9 major urban areas where current data shows the greatest concentration of ozone, the administration's plan calls for a 10-year program for the phased-in introduction of alternative fuels and clean-fueled vehicle sales according to the following schedule:

—500,000 vehicles in 1995
—750,000 vehicles in 1996

—1,000,000 vehicles each year from 1997 through 2004

The major metropolitan areas affected by the plan are Los Angeles, Houston, New York City, Milwaukee, Baltimore, Philadelphia, greater Connecticut, San Diego, and Chicago. If these areas are able to demonstrate that they can achieve analagous reductions in VOC's and toxic air chemicals through other measures, the plan would allow them to opt out of the clean-fueled vehicle and alternative fuels program, in which case the vehicle target numbers would be scaled down proportionately. The plan would also allow other cities to be included in the program at their request.

The President's alternative fuels program, combined with other motor vehicle and fuel measures in the plan, will shrink the contribution of vehicles to the ozone problem from the current 40 percent to 10 percent. This represents not only an alternative to some of the more disruptive driving controls currently being considered by some States but also a bold and innovative means of reconciling continued use of the automobile by a growing society with the need for cleaner air.

Effect of the Federal Measures Proposed by the President

Taken together, the Federal measures proposed by the President, combined with the effect of measures being pursued under current law, will cut ozone-causing VOC emissions nearly in half. EPA estimates the program will reduce annual emissions by 45 percent by the year 2005. In and of themselves, these measures will bring all but about 20 cities into attainment of the ozone standard.

Because of the President's commitment to ensuring clean air in *all* American cities, however, his plan calls for additional measures to be undertaken by the States in order to meet the standard for healthy air.

State Measures Under the President's Proposal

Under the President's proposal, the roughly 20 cities with the most serious ozone pollution problems would be required to take steps to cut ozone-causing emissions by 3 percent per year beginning with enactment of the legislation.

This will guarantee that, even as more realistic deadlines for meeting the standard are set, those cities with the most significant air pollution problems will be on a steady path toward cleaner air.

Because of ozone transport, some areas may be unable to attain the standard in spite of adequate efforts to control their own pollution. Cities under 200,000 in population, which are not part of regional airsheds, but whose attainment is prevented as a result of ozone pollution transported from other cities or regions, will not be subject to sanctions under these circumstances.

Emissions Trading: Harnessing the Power of the Marketplace to Protect the Environment

The President has also directed the EPA to develop rules and regulations which will provide companies with the maximum flexibility in achieving the pollution reductions called for in his plan. Specifically, the President's plan would require the Administrator to issue regulations within 18 months to allow automobile manufacturers to engage in emissions trading and refiners to engage in fuel pooling to the maximum extent feasible. Such regulations shall establish performance standards for vehicles and transportation fuels marketed in the most serious and severe nonattainment areas. Companies would then be able to choose to engage in emissions trading and fuel pooling so long as they can demonstrate to EPA that the combination of measures they select will allow them to achieve the same emissions reductions as the control measures outlined in the President's program.

This emissions trading concept is already being considered by the State of California. It represents a market-based means of reducing both VOC's and reactive aromatics in the most cost-effective way. The EPA would publish these regulations at the same time as it publishes regulations implementing the other control measures in the President's plan. If companies cannot demonstrate alternative means of achieving the same amount of pollution reduction, they would be required to implement the control measures outlined above.

Carbon Monoxide

Background

Carbon monoxide (CO) is a colorless, odorless gas that tends to reduce the oxygen carrying capacity of the blood. It is a particularly serious health threat to individuals who suffer from cardiovascular disease, especially those with angina or heart disease. Unlike ozone, carbon monoxide problems are worse in cold weather.

Two-thirds of CO emissions come from motor vehicles. Emissions of carbon monoxide decreased 25 percent from 1978 to 1987, despite a 24-percent increase in vehicle miles traveled during that period, largely because of controls already in place on emissions from cars, buses, and trucks. Some improvement from these controls will continue, as older, more heavily polluting cars are gradually replaced on America's roads by newer, cleaner vehicles. Currently, cars purchased before 1981 amount to only 38 percent of the vehicle miles traveled (VMT), but they account for over 86 percent of CO emissions.

As use of the automobile continues to grow, however, it is expected that many American cities will not attain the health-based carbon monoxide standard. That standard is 9 parts per million (ppm), measured over an 8-hour period. If a representative reading of monitors in an area shows that it exceeds the standard for 2 or more 8-hour periods, it is classified in nonattainment.

There are currently about 50 American cities not meeting the standard. As with ozone, in some cases, cities exceed the standard only moderately. About six urban areas, however, have a carbon monoxide problem classified by EPA as serious.

EPA estimates that even as vehicle miles traveled (VMT) grow, the effect of fleet turnover will bring almost half of those cities currently violating the standard into attainment. Several of the measures in the President's proposal designed to curb ozone-causing emissions will also help reduce carbon monoxide. These include the measures described above to tighten tailpipe standards for light-duty trucks and to improve State and local inspection and maintenance programs.

Even with these measures, however, several American cities will continue to have a carbon monoxide problem. To bring these cities into compliance with the health-based standard, the President's proposal contains several important measures designed to cut carbon monoxide emissions. Specifically, the President's plan calls for:

- A major new program to promote the use of clean-burning oxygenated fuels, which emit dramatically less carbon monoxide. The plan would require those cities with the most serious carbon monoxide problems to use gasoline blended with oxygenated fuels during the winter months. Oxygenated fuels include ethanol, methanol, ETBE, and MTBE. Blending oxygenates into fuel will not only reduce carbon monoxide, it will also sharply reduce toxic air emissions caused by aromatics in conventional gasoline.
- Ethanol and ETBE are generally produced in the United States from corn, wheat, and potato crops. They offer the opportunity both to clean the air and to provide expanded markets for America's farmers. The President's plan would allow cities to opt out of the oxygenated fuels requirements if they could demonstrate to EPA that they would come into attainment of the carbon monoxide standard using other measures. EPA estimates that requiring oxygenated fuels in areas with serious carbon monoxide problems will reduce carbon monoxide emissions by an additional 18 percent in these areas.
- Giving EPA the authority to issue regulations for a carbon monoxide cold temperature standard. Carbon monoxide problems are exaggerated when motor vehicles start in exceptionally cold weather. This standard has the potential to reduce carbon monoxide emissions by 7 to 12 percent.

The President's plan will bring the vast majority of cities into attainment with the carbon monoxide standard by 1995, and will bring *all* American cities into attainment by the year 2000.

Particulate Matter

Background

Particulate matter (PM10) includes acid sulfates, toxic organics and metals, and in-

soluble dusts that come from traditional stack emissions, as well as area sources such as wood stoves and open burning. Construction, roadways, and mobile sources also contribute to the problem. PM10 can cause premature death in elderly and ill persons, aggravation of existing respiratory disease, increased respiratory illness, and other effects. Particulate matter (PM10) standards were revised in 1987 to address smaller particulate matter particles most likely to penetrate the lungs.

The President's program will:

- Require reasonably available control measures to meet the standard.
- Ensure that the majority of cities meet the standard by 1994, and that *all* cities meet PM10 standards by 2001.

Toxic Air Pollutants

Highlights

- Dramatically accelerates progress in controlling major toxic air pollutants.
- Uses best technology available to cut air toxics.
- Promises certifiable progress in regulating sources of toxic air emissions on a set schedule.

Background

The emission of toxic chemicals into the air is believed to cause cancer and other health effects in humans. Since 1974 EPA has been required to regulate such emissions in order to provide an ample margin of safety to the public. Because this margin has been difficult to define and has been the subject of continued litigation, EPA has had difficulty proceeding with regulation under the law. Since passage of the statute, it has published regulations for only seven toxic air pollutants. Because the statute has proven unworkable, the President has proposed a major revision of the law in order to guarantee greatly accelerated progress in reducing the damaging effects of toxic air pollution.

Data recently released by the EPA indicate that 2.7 billion pounds of toxic chemicals are emitted into the air each year. EPA estimates that these emissions contribute to approximately 1,500–3,000 fatal cancers annually. Toxic chemical emissions are associated also with respiratory disease and birth defects. Motor vehicles and stationary sources each account for approximately half of air toxic emissions. The measures in the President's plan designed to curb VOC emissions and promote alternative fuels will sharply reduce emissions from motor vehicles.

The President's plan also includes a major new initiative to reduce air toxic emissions from stationary sources (factories, plants, and other such sources). A majority of identified carcinogens are emitted by about 30 industrial categories, including steel mills (coke ovens), rubber, pulp and paper, chromium electroplating, and solvent users. The President's plan is designed to reduce quickly emissions from these sources.

The President's program will:

- Establish a set schedule for regulating major sources of toxic air pollution. Under the plan, EPA will publish regulations for controlling 10 source categories within 2 years, 25 percent of source categories within 4 years, 50 percent of source categories within 7 years, and all necessary additional categories of air toxics within 10 years.
- Require emitters of toxic air pollution to use the Maximum Available Control Technology (MACT) to sharply cut pollution. This means that EPA would set a standard based on the best technology currently available. Plants would then be required to meet that standard, with some exceptions to add flexibility for those who have already reduced most air toxics and for very small plants.
- Encourage voluntary reductions early, before standards are even published, by providing credit for those reductions against the MACT requirement.
- After Phase I is implemented, the EPA Administrator shall assess any remaining risk after reductions from state-of-the-art technology and determine if there is a need for further controls. Based on his assessment, the EPA Administrator would set additional standards to prevent the public from being

exposed to unreasonable risk, which would allow considerations of cost and technical feasibility as well as health-based risks.

It is estimated that the President's air toxics initiative will eliminate in the first phase about three-quarters of the cancer deaths caused by toxic air emissions from factories and plants. The annual costs of the program are difficult to estimate until actual standards are published, but current EPA estimates center at about $2 billion per year.

Designation of Kenneth M. Carr as Chairman of the Nuclear Regulatory Commission

June 12, 1989

The President has designated Kenneth M. Carr as Chairman of the Nuclear Regulatory Commission, effective July 1, 1989. He would succeed Lando W. Zech, Jr.

Since 1986 Commissioner Carr has served as a member of the Nuclear Regulatory Commission. Prior to this, he served in the U.S. Navy as Deputy and Chief of Staff to the Commander in Chief, Atlantic Command, and the Commander in Chief of the U.S. Atlantic Fleet, retiring as a vice admiral in 1985. From 1977 to 1980, he commanded the submarine force of the Atlantic Fleet and served as Vice Director of Strategic Target Planning at Offutt Air Force Base, NE. In 1972 he was assigned as chief of staff to the commander of the submarine force of the Atlantic Fleet, and in 1973, assumed duties of military assistant to the Deputy Secretary of Defense. Commissioner Carr enlisted in the Navy in 1943.

Commissioner Carr graduated from the U.S. Naval Academy in 1949. He has received the Distinguished Service Medal, the Legion of Merit, Presidential Unit Commendation, and Defense Distinguished Service and Meritorious Service Medals. He was born March 17, 1925, in Mayfield, KY. He is married to Molly Pace of Burkesville, KY.

Remarks to Students at the Teton Science School in Grand Teton National Park, Wyoming

June 13, 1989

Sorry, Manuel mentioned my birthday. It's so nice to be in Wyoming. Nobody, not one person—your Governor, the Senators, our new Congressman—no one has said, And now you can ride the subway in Jackson Hole for half fare. [*Laughter*] I'm delighted, and thank you for your tolerance. But, Manuel, thank you for that warm introduction. Secretary Lujan and I served in Congress. And I liked very much what Lorraine said about him, and I know he'll do a first-rate job with all the responsibilities that the Secretary of the Interior has. I want to thank all of you for one of the best birthday presents a person could possibly have, and that was going fishing yesterday on Lake Jackson with my grandson. The score: caught six, ate two. Not bad for 45 minutes worth of work out there.

And I am really thrilled to be here. I'm just sorry that the Silver Fox is not here. That's my wife, Barbara. But some have inquired about her health, and she's doing very well, thank you. And she's off doing the good works for literacy in New York City, I think it is, this evening. I wish she were here. She was with me last time, and she'll never forget your hospitality either.

I want to thank Governor Sullivan, who showed us the extraordinary courtesy of coming over across the line into Montana to greet us yesterday and—[*laughter*]—was with us here and then had his beautiful daughter come out, and we could see a little more of that wonderful Sullivan family. I'm glad that Senator Malcolm Wallop, a friend of longstanding, is with us. Our new Congressman who's going to do a great job for this State, Craig Thomas, is here. And then I had to put up with [Senator] Al Simpson. [*Laughter*] You see, every January or so, he and I go fishing, but not in Wyoming. And we have to listen for two straight nights to him lying about Wyoming fishing to those of us fishing in Florida. [*Laughter*] But nevertheless, I'm glad he's here. And I also want to just single out another friend, a friend of my dad's, a friend of mine, who I'm told is here. And I

(Lange/Dooley)
September 16, 1989
2:50 p.m.
[SPOKE.DOC]

PRESIDENTIAL REMARKS: CENTENNIAL OF THE STATE OF WASHINGTON
SPOKANE, WASHINGTON
TUESDAY, SEPTEMBER 19, 1989
10:00 a.m.

Thank you, Speaker Foley for that kind introduction.

Washington state is very lucky to have a friend like Tom Foley in the Nation's capital. He is a man of integrity -- of decency and fair play -- and a man I'm proud and honored to work with.

Mrs. Foley, and Lt. Governor Pritchard, thank you for your warm welcome. Congratulations to Co-Chairmen Ralph Monroe and Jane Gardner, Washington's first lady, on a great Centennial. And Mayor pro-tem Higgins: you've got a beautiful city here to be proud of.

[[You know, back in 1889, when President Harrison sent a telegram to the first governor of Washington -- to tell him that Washington had become the 42nd state -- he sent the telegram collect. [PAUSE] Well, that's **one** way to balance the budget.

It's a pleasure to be here, at the dawn of a second century of statehood, here in the Evergreen state. I'm not going to give you the usual "stump" speech. And I may be going out on a limb, here -- but I think most of America thinks of **you** as the **real** Washington. [PAUSE]]]

Yours is a land of rich resources -- and resourceful people. Salmon, gold, and timber in abundance brought us here, as the promise of the Pacific brought the railroads west.

There has always been -- and will always be -- a sense that the future is being decided here in this gateway to the Pacific.

Here in Washington you're doing well. Living in a state with exports that went up nearly 40 percent last year. Leading the nation in exports per capita. And cutting unemployment from 10 percent to 6 percent over the last five years -- during a time of rapid population **growth**.

Last month you held a Pacific Summit that reminded America how crucial the interrelations between nations are for our future.

Even now, Governor Gardner is in Japan. Last Thursday he attended groundbreaking ceremonies for Washington Village, a

housing development in Kobe [KOH-bay], Japan using Washington finished forest products and U.S. construction methods. That means $10 million for the state of Washington -- and a great American export to Japan.

Washington has had a wonderful 100 years -- and you deserve a great Centennial celebration. But it's the future I'm here to talk to you about today.

I took this trip out West because I'm concerned -- as I think we all are -- about the future of the planet we share. **It won't be enough to restore our balance of trade, if we throw off the balance of nature.**

In South Dakota, I talked about the need to restore the balance of nature here at home -- and how each of us can begin by planting a single tree.

In Montana, I talked about interdependence -- how the actions we take and the pollutants we create have consequences that are being felt the world over.

Today, I'm asking all Americans to join in a renewed spirit of conservation -- **a new commitment, to a more careful stewardship of the natural world.**

I think many of us are beginning to understand something that Native Americans understood long before we got here: when it comes to the preservation of our precious environment, there's a connection between the smallest individual action, and widespread, global consequences.

No words convey that better than a legendary speech given in the 1800s, by an Indian Chief named Seattle:

"The earth does not belong to man," he said, "Man belongs to the earth. Whatever happens to the earth, happens to the sons of the earth. The sky, the lands which appear changeless and eternal, may change.

"Continue to foul the earth and you will achieve an end to living -- and the mere beginning of survival. You must teach your children that the earth is rich. Teach your children that to harm the earth, is to heap contempt upon its creator."

Chief Seattle understood what it has taken us a century to learn. Our material prosperity and economic growth have served us well. But now, together, we must find new ways to apply the creativity of the marketplace, in the **service** of the environment. **Sound ecology and a strong economy <u>can</u> coexist.**

We have an opportunity to renew the environmental ethic in America -- and to reassert U.S. leadership on environmental challenges, around the world. **That's an opportunity we can't afford to miss.**

In the eight months since I was sworn in as President, we've moved fast and hard to make the environment a priority. We're seeking a worldwide ban, by the year 2000, on the CFCs which destroy the ozone layer. We've prohibited imports of ivory, and prices have dropped by 50 percent -- making elephant poaching less profitable. And we're working for a policy that would ban the export of hazardous wastes unless we're **sure** they'll be disposed of safely.

We've proposed tougher laws to eliminate medical waste on beaches. We want to expand dozens of forests, parks, and refuges across America. We've announced a national goal of **no** net loss of wetlands.

And we've laid out detailed proposals to stem acid rain, cut urban smog, clean up air toxics, and encourage the use of alternative fuels -- with a Clean Air Bill that achieves **95 percent** of the smog-causing VOC reductions sought by competing legislation -- at a cost of 6.5 **billion** dollars **less.**

That's just in eight months -- **and I plan stay involved, helping to protect our precious environment, as long as I am President.**

When it comes to clean air, we need action on the legislation we've proposed -- **now.** Every day that passes is another day we're postponing progress on clean air. We've brought people together, and put a sound proposal on the table. Now it is up to the Congress, to **pass** this clean air legislation, **this year.**

But if we really hope to recover, restore, and preserve our natural heritage, that "other Washington" can't do it alone. And the answer can't simply be limited to new laws.

It must be more fundamental. It lies in a shared sense of personal responsibility -- a new environmental awareness -- on the part of all Americans.

Through millions of individual decisions -- simple, everyday, personal choices -- we're determining the fate of the earth. So the conclusion is also simple: We're all responsible.

And it's surprisingly easy to move from being part of the problem, to being part of the solution.

So many of the big problems -- coastal water pollution, pesticides in groundwater, urban smog, and municipal garbage -- aren't simply caused by large powerplants and refineries -- and many **can't** be solved by national legislation alone.

Millions of small, diverse sources contribute to these problems -- including the everyday behavior of people at work and at home. And such overwhelming environmental challenges **can** be solved -- by individual determination that we **can** do better.

Local communities, businesses large and small, individual families -- **all** can learn to generate less waste, and recycle more of the waste that **is** generated.

In fact, those that **do**, have discovered that there are sound economic side-effects. **Environmental protection makes economic sense.**

The people of Washington state, in fact, have a history of showing the rest of the nation the way. Back in the 1940s, J.P. Weyerhaeuser [WHERE-howzer], Jr. moved the lumber industry from simply harvesting forest resources, toward comprehensive management of tree farms that could endure indefinitely.

And after research into product development, Weyerhaeuser began introducing marketable products made from what was once treated as waste.

The 3M Corporation announced last spring that since starting their pollution prevention program in 1975, the company has saved $408 million -- and prevented 111,000 tons of air pollutants, 15,000 tons of water pollutants, and 388,000 tons of solid waste from being released into the environment. And they've done it by rewarding employees for coming up with the ideas.

In the city of Seattle, fees for waste disposal have been an incentive for businesses and households to reduce the amount of waste produced. I understand that over the last several years, waste has been cut by nearly a fourth.

So the power of the marketplace **can** encourage conservation -- with spectacular results. Results that need to be duplicated everywhere in America.

You know, fifteen years ago, when Spokane invited the world over for a visit, the 1974 Expo became the first World's Fair to focus on the environment.

It was a good beginning. And we have made progress since then. Perhaps nothing better symbolizes that, than the surging river that pulses through Spokane -- a river that first lured men here as a source of protection, transportation, and sustenance.

Such damage was done to this river by the early part of this century, that for years it served as little more than an open sewer. In 1938, the Spokane River was called "a serious health hazard."

Over the past few decades, you have restored and reclaimed this magnificent river. The damage has been reversed -- nature's balance has been restored -- and the river has been reborn.

The ethic of Native Americans like Chief Seattle must **also** be reborn on this continent. His was a religious understanding, that the whole earth has a soul that can be destroyed by man. He saw the world as a spiritual place, of precious but fragile beauty.

Over a century ago, he said, "Hold in your mind the memory of the land as it was when you found it. And with all your strength, with all your mind, with all your heart, preserve it for your children, and love it as God loves us all."

That is a challenge to us all. The American people -- **all people** -- need a fuller relationship with the world they live in. A better understanding of causes, and effects.

And if the earth is an altar, we must make it an altar **not** of sacrifice, but of celebration. A place where our commitment to restoring its natural beauty is felt in a thousand everyday decisions.

You've made one of those decisions today -- by deciding to plant a centennial tree. May it grow, flourish, and symbolize the hope of a new century: **that man will one day be reconciled to nature once again.**

God bless you. God bless the great state of Washington. And God bless the United States of America.

# # #

EROSION OF THE CLEAN AIR ACT OF 1970: A STUDY IN THE FAILURE OF GOVERNMENT REGULATION AND PLANNING

Richard Walker & Michael Storper***

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I. INTRODUCTION

The Clean Air Act Amendments of 1970[1] (Clean Air Act), passed by Congress at the apex of the environmental movement, is undoubtedly the seminal piece of legislation in air pollution control. Its success or failure has obvious consequences for the quality of the air we breathe. Moreover, since the 1970 Act is a model of well-written environmental legislation, any subsequent failure to achieve its explicit goals must necessarily cast doubt on the Nation's whole strategy of controlling pollution by means of government regulation.[2]

The fate of the Clean Air Act is a subject much discussed but little understood. Although it is generally conceded that the Act, to date, has failed to achieve its goals,[3] even the most critical treatments of the Act's checkered fate have been inadequate. By simply attributing the Act's lack of success to either a failure of logic on

[1] 42 U.S.C. §§ 1857-1858a (1970) (present version at 42 U.S.C. §§ 7401 *et seq.*). The Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (1977) completely revised the Act. The Act was transferred and reclassified to 42 U.S.C. §§ 7401 *et seq.* However, since this article is primarily concerned with the version of the statute in effect from 1970-77, the citation to the 1970 edition of U.S.C. will be used. The 1977 Amendments will be referred to as the "Amendments" to distinguish the present version from the 1970 version.

[2] Regulation by independent agency is a long-standing method dealing with social problems in America. *See generally* M. BERNSTEIN, REGULATION OF BUSINESS BY INDEPENDENT COMMISSION (1955). This tradition — the wisdom of which is questioned in this article—was continued almost blindly during the peak years of the environmental movement. It is embodied not only in the Clean Air Act, 42 U.S.C. §§ 1857-1858a (1970), but in other pollution control measures such as the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. §§ 1288 *et seq.* (1976) and the Toxic Substances Control Act of 1976, 15 U.S.C. §§ 2601 *et seq.* (1976), as well.

[3] *See, e.g.*, text at notes 44-46, *infra*.

the part of those who designed the program, or a failure of nerve on the part of those in government entrusted with carrying out the "popular will" embodied in the legislation,[4] critics have ignored the fundamental question surrounding the Act's future: whether government regulation and planning can bring about as profound a change in the economy and social practice as the rapid improvement of air quality, or, indeed, whether clean air can be realized at all under American capitalism as it is presently constituted.

This article presents a negative answer to the preceding question. Such a conclusion is reached by first outlining the essential provisions and goals of the Clean Air Act and showing that, despite the enactment of the statute in 1970, air quality has not improved significantly and is nowhere near the goals established in the Act. The legal erosion of the Act is explained in the following section by documenting the non-enforcement, concessions and revisions by the Environmental Protection Agency (EPA), the President and the state and national legislatures. Next, the article discusses the workings of the American government as it presently exists, and adopts the view that the government is not a self-constitutive, neutral body which is independent of the social formation that it is intended to govern. Instead, the government is subject to many of the internal contradictions of which society itself is comprised, and which can be observed through an examination of the structure of government and the external pressures applied to government. The next section examines some of the societal forces outside the control of any single agent which form political and economic barriers to the implementation of the Act, despite the original intentions of the agencies or legislatures. The article concludes that, although anti-pollution efforts have had some effect, government in its present form lacks the power necessary to overcome the inherent barriers which are impeding the attainment of clean air.[5]

[4] *E.g.*, Kramer, *Economics, Technology, and the Clean Air Amendments of 1970: The First Six Years*, 6 ECOLOGY L.Q. 161 (1976). Kramer summarizes his own article as follows:

> This Article examines a fundamental defect in the implementation of the Clean Air Act: namely, that it has taken longer to establish the meaning of its programs than the time allotted for their accomplishment.
>
> The responsibility for this defect is shared by Congress, EPA, the state and the federal courts.

Id. at 163.

[5] Since the focus of this article is a case study of the Clean Air Act as legal policy, rather than an examination of the technical questions surrounding air quality and its health effects or the general question of state planning, most attention centers on the analysis of the legal erosion of the Act. Other issues are dealt with less extensively since, in each such instance,

II. The Clean Air Act and Air Quality: Goals and Failures

Federal air pollution control legislation in the United States is relatively new.[6] In 1955, Congress enacted the first Air Pollution Control Act which focused entirely on providing research and technical assistance for air pollution control.[7] Subsequent legislation included the 1963 Clean Air Act,[8] a weak initial effort to regulate air pollution, the 1965 Motor Vehicle Air Pollution Control Act[9] and the Air Quality Act of 1967.[10] However, popular sentiment against air pollution and frustration with the near complete futility of these regulatory efforts[11] culminated in a demand for the total revision of prior legislation. As a result, the 1970 Act, passed as amendments to the 1963 Clean Air Act, was so far-reaching that it effectively established a new beginning in air pollution control.

The purpose of the 1970 Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population . . . ."[12] The Act has two major goals: the protection of public health and the broader goal of enhancement of public welfare. To these ends, Congress directed that national ambient air quality standards be established for certain designated "criteria pollutants."[13] These pollutants were viewed as the basic measure of air quality, providing both targets for improvements and indices of the success of pollution control efforts. *Primary* standards for the criteria pollutants were to be set at levels which would protect public health,[14] while more stringent *secondary* standards served the more ambitious goal of promoting public welfare.[15] Ambient air quality was expected to meet primary standards by May 31, 1975[16] (with allowance for possible delay to 1977),[17] while secondary standards were to be met within a reasonable time thereafter.[18]

The Act created a cooperative state-federal framework as the means for implementation.[19] EPA was given direct authority to establish national ambient air quality standards,[20] limits on a special category of "hazardous air pollutants,"[21] standards for emissions from new stationary sources[22] and standards for new motor vehicles which would achieve a ninety percent reduction in carbon monoxide and hydrocarbons by 1975 and a ninety percent reduction in nitrogen oxides emissions by 1976.[23] States were given primary responsibility for achieving and maintaining ambient air quality standards.[24] They were to adopt their own strategies to meet this responsibility and to submit an implementation plan (State Plan)[25] to be reviewed by EPA.[26] However, if EPA determined that a State Plan were inadequate, it could promulgate regulations setting forth all, or part, of an implementation plan for that state.[27]

Finally, to complete the statutory framework the Act expressly allowed judicial review of EPA action with respect to the promulga-

the full scope of theory and presentation of all the evidence needed to defend the article's position lie outside the feasible range of a single paper.

A reason for the detailed treatment of the legal erosion of the Act is that no one has provided an up-to-date and comprehensive review of such erosion, although the evidence is easily available. Furthermore, issues of growth control and planning, which are currently in the forefront of clean air controversy and which reveal most clearly the limits of single-purpose regulation, are highlighted in the discussion of the legal erosion of the Act.

[6] For a historical review, *see* J.C. Davies & B. Davies, The Politics of Pollution (1975); J. Esposito, Vanishing Air (1970); Comment, *A History of Federal Air Pollution Control*, 30 Ohio S. L.J. 516 (1969).

[7] The Act of July 14, 1955, Pub. L. No. 84-159, 69 Stat. 322 (1955).

[8] Pub. L. No. 88-206, 77 Stat. 392 (1963).

[9] Pub. L. No. 89-272, 79 Stat. 992 (1965).

[10] Pub. L. No. 90-148, 81 Stat. 485 (1967). The 1967 Air Quality Act was, in fact, composed of extensive amendments to the 1965 Act.

[11] *See* J. Esposito, *supra* note 6. The regulatory failure preceding the enactment of the 1970 Clean Air Act is significant to the analysis of the regulatory failure following the Act. Under a conventional view, good law will produce the desired results. *See, e.g.*, T. Lowi, The End of Liberalism (1969). Hence the struggle up to 1970 was to secure a good, strong law, which should then succeed. This article, on the other hand, adopts the position that political-economic structural forces underlie regulatory failure and, therefore, the more legislation attempts to defy these forces, the more resistance will be encountered. Thus an apparently strong law will frequently achieve little more than a weak one.

[12] 42 U.S.C. § 1857(b)(1)(1970). This language was taken from the Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 392, 393 (1963) which stated that the purpose of the 1963 Act was "to protect the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population. . . ."

[13] 42 U.S.C. § 1857c-3 (1970). There are currently six criteria pollutants: particulates, sulfur oxides, hydrocarbons, carbon monoxide, nitrogen dioxide and photochemical oxidants (chiefly ozone). 40 C.F.R. §§ 50.4-50.11 (1977).

[14] 42 U.S.C. § 1857c-4(b)(1)(1970).

[15] *Id.* § 1857c-4(b)(2).

[16] The State Implementation Plans were due on January 31, 1972, four months were allowed for EPA review and three years for compliance. *See* W. Rodgers, Environmental Law 237 (1977).

[17] *See* 42 U.S.C. § 1857c-5(e)(1970).

[18] *See id.* § 1857c-5(a)(2)(A)(ii).

[19] *Id.* § 1857c-5.

[20] *Id.* §§ 1857c-3(a), 1857c-4.

[21] *Id.* § 1857c-7.

[22] *Id.* § 1857c-6.

[23] *Id.* § 1857f-1(b)(1).

[24] *Id.* § 1857c-2(a).

[25] *Id.*; *see also id.* § 1857c-5(a)(1).

[26] *Id.* § 1857c-5(a)(2).

[27] *Id.* § 1857c-5(c).

tion of standards or the approval or promulgation of any implementation plans,[28] and gave private citizens a right of action in federal courts against violators of emission standards or to compel EPA to perform its statutory duties.[29]

In order to achieve national ambient air quality standards, emissions limitations were to be imposed on two main classes of polluters: *stationary* sources (chiefly industrial plants)[30] and *mobile* sources (chiefly automobiles).[31] Existing sources were to be brought into compliance almost entirely by efforts at the state level. State Plans were to include "emissions limitations, schedules, and timetables for compliance" for existing stationary sources, as well as "such other measures as may be necessary to insure attainment and maintenance of such primary or secondary standards, including, but not limited to, land-use and transportation controls."[32] EPA was given a direct hand in controlling new sources of pollution through its powers over motor vehicle emissions[33] and new source performance standards,[34] but the states were also to play an important role.[35] The State Plans had to include a procedure for "preconstruction review" of new sources which might prevent the attainment or maintenance of ambient air standards[36] and to which EPA performance standards would apply.[37] Furthermore, actual implementation of performance standards could be (and has been) delegated to the states.[38]

The Clean Air Act is a nearly unequivocal mandate for the attainment and maintenance of air quality standards to protect public health and welfare. It is an unusually powerful and uncompromising piece of legislation because it sets relatively specific goals,[39] establishes a definite and short-term timetable for implementation[40] and

[28] *Id.* § 1857h-5.
[29] *Id.* § 1857h-2.
[30] *E.g., id.* § 1857c-6.
[31] *Id.* § 1857f-1.
[32] *Id.* § 1857c-5(a)(2)(B).
[33] *See id.* § 1857c-6.
[34] *Id.* § 1857f-1.
[35] *See* Ferguson, *Direct Federal Controls: New Source Performance Standards and Hazardous Emissions*, 4 ECOLOGY L.Q. 645, 648-49 (1975).
[36] 42 U.S.C. § 1857c-5(a)(4)(1970).
[37] *Id.* § 1857c-5(a)(2)(D).
[38] *Id.* § 1857-6(c)(1). A state may undertake implementation and enforcement of standards for new stationary sources if it submits a plan to EPA and EPA finds the plan adequate and delegates its authority to implement and enforce the standards to the state. *Id.*
[39] *E.g., id.* § 1857f-1(b)(1).
[40] *See, e.g., id.* § 1857c-5(a).

authorizes the use of broad strategies of regulation and planning to attain its goals.[41] Furthermore, the statutory mandate is subject to little modification by such provisions as those requiring the balancing of health benefits against economic costs and technological or political feasibility.[42] The Act is thus a classic piece of single-purpose legislation, containing the (probably unanticipated) potential to generate far-reaching political and economic changes in American society.

Regulation under the Clean Air Act has had a positive effect. Air quality indices have shown modest improvement since 1970, and comparative figures indicate a reversal of the previously unchecked increase in pollutant levels in all but one category.[43] However, such progress should not be confused with success in protecting the public health. The air pollution control program has failed in virtually every instance to attain its air quality goals. A recent EPA report states that the majority of Americans still are breathing air that is harmful to their health.[44] As of 1977, only one major metropolitan area, Honolulu, did not violate any of EPA's primary standards for the six "criteria" pollutants,[45] while two of the three largest metropolitan areas, Los Angeles and Chicago, violated all six.[46]

Notwithstanding the failure to meet primary standards by 1975, or even 1977, the Council on Environmental Quality has taken an optimistic view of what the reduction in pollution levels presages:[47] but extrapolation to a pollution-free future is not very meaningful. The reductions so far attained are the ones most easily achieved. The initial installation of pollution control equipment on cars and smoke stacks, a changeover to low-sulfur fuels, the regulation of trash-burning and the least drastic industrial process changes have been used to accomplish the reduction; however, more complex and expensive methods will be necessary in the future.[48] Also, the re-

[41] *Id.* § 1857c-5(a)(2)(B).
[42] *See* Kramer, *supra* note 4, at 168-70.
[43] Nationally, between 1970 and 1975, levels of sulfur dioxide dropped 27 percent, carbon monoxide 20 percent and particulates 12 percent. Nitrogen oxides, however, have been more resistant, actually rising 10 percent since 1970. *See* San Francisco Chronicle, Feb. 24, 1978, at 1, col. 1 (EPA figures); U.S. COUNCIL ON ENVIRONMENTAL QUALITY, SIXTH ANNUAL REPORT 44 (1975); U.S. COUNCIL ON ENVIRONMENTAL QUALITY, SEVENTH ANNUAL REPORT 239 (1976). However, the trend of improved air quality has been reversing in recent years. See note 50, *infra* for a more detailed analysis of the trend.
[44] *Cited in* San Francisco Chronicle, Feb. 24, 1978, at 1, col. 1.
[45] *Id.*
[46] *Id.*
[47] U.S. COUNCIL ON ENVIRONMENTAL QUALITY, SEVENTH ANNUAL REPORT 239 (1976).
[48] *See, e.g.*, Mills & Wright, *Government Policies Toward Automotive Emissions Control*,

duced levels manifest themselves at a time of seriously retarded economic growth, when all economic indices, including pollution, are depressed.[49] Moreover, some initial gains may be slipping away: sulfur dioxide and particulate pollution have reversed the earlier trend and increased since 1975,[50] probably because of increased coal-burning.

Furthermore, undue attention to achieving primary standards for the six designated criteria pollutants has diverted public attention from other health threats. Various air pollutants besides the criteria pollutants are of equal, if not greater, danger to human life. These include the heavy metals, synthetic organics and other products and by-products of industrial processes, from asbestos to microparticulates.[51] Environmental legislation has only just begun to acknowledge and deal with pervasive exposure to toxic and carcinogenic substances in the environment.[52] The idea that a mere handful of pollutants could be taken as the crux of the air quality and public

in APPROACHES TO CONTROLLING AIR POLLUTION 348-421 (A. Friedlander ed. 1978). The only progress toward reducing emissions levels that will come easily in the future will be the continuing retirement of pre-catalytic converter automobiles. Industrial and power plant dispersal may contribute to a redistribution of pollution from cities to rural areas, but dispersal does not reduce net national pollution. Further progress toward clean air will be impeded by rising costs (since the least costly changes have already been effected), continued growth in industrial output and automobile usage and the impact of a national energy policy which encourages the use of coal.

[49] The most serious recession since the 1930's struck the United States economy in 1974-75. This sharp setback was but the nadir of a longer period of economic difficulties beginning about 1965, worsening after 1970 and still continuing to the present despite some economic improvement in 1976-78. *See* U.S. CAPITALISM IN CRISIS (Union of Radical Political Scientists ed. 1978); E. MANDEL, THE SECOND SLUMP (1978); P. SWEEZY & H. MAGDOFF, THE END OF PROSPERITY (1977); THE ECONOMIC CRISIS READER (D. Hermelstein ed. 1975). *See also* Sweezy, *The Present Stage of the Global Crisis of Capitalism*, 29 MONTHLY REV. 1 (1975) on the slowness of the recovery.

[50] A comparison of EPA statistics for 1975 and 1977 shows that while SO_2 levels in 1975 were reduced 27 percent from 1970 levels, 1977 figures indicate that SO_2 levels were only 17 percent lower than the 1970 levels. Particulates registered a 12 percent reduction in 1975 but were only 8 percent lower in 1977 than the 1970 levels. Carbon monoxide levels were the same in 1977 as in 1975 (down 20 percent from 1970). Nitrogen dioxide levels were above 1970 levels for both 1975 and 1977. Ozone pollution showed no decrease between 1970 and 1977, except in California (although 30 percent more cars were on the road). San Francisco Chroncile, Feb. 5, 1979, at 1, col. 5.

[51] *See generally* L. LAVE & E. SESKIN, AIR POLLUTION AND HUMAN HEALTH (1977), *see also* U.S. COUNCIL ON ENVIRONMENTAL QUALITY, EIGHTH ANNUAL REPORT 11 (1977); S. EPSTEIN, THE POLITICS OF CANCER (1978).

[52] *E.g.*, Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901-6987 (1976); Toxic Substances Control Act, 15 U.S.C. §§ 2601-2629 (1976); Federal Environmental Pesticide Control Act of 1972, Pub. L. No. 92-516, 86 Stat. 973 (1972) (codified in scattered sections of 15, 21 U.S.C).

safety problems seems sadly naive in light of the advances in national awareness since 1970 of the dangers of toxic substances.

III. EROSION OF THE CLEAN AIR ACT AS LAW

The goals of the Clean Air Act, along with the legal tools to implement these goals, have been seriously eroded in form and in fact since the Act's passage in 1970. Due to this erosion of law, air quality improvements have not been as dramatic as Congress and public supporters of clean air legislation anticipated in 1970. Prospects for further substantial improvement of air quality are even less encouraging than they were nine years ago. This section examines a process of policy adaptation and compromise, reflected in law, which has been underway virtually from the outset of the regulatory effort.

Each of the following subsections deals with a major programmatic area which has arisen in the process of implementing the Clean Air Act. Since some of these areas were not anticipated by Congress and thus were not included as programs in the 1970 Act, it is not possible to organize a discussion of the Act simply around the categories established therein. However, all the following areas of law have been defined in practice by case law, administrative policy or subsequent legislation.

Part A discusses the erosion of the basic tools for regulating ambient air quality: standards and State Plans. Parts B and C deal with the narrower implementation problems of controlling the two major categories of emissions: stationary sources (industrial) and mobile sources (automotive). The two parts are not, however, strictly parallel since Part B deals with bringing existing sources into compliance with standards through state efforts under State Plans, while Part C deals chiefly with EPA-implemented controls on emissions from new motor vehicles. Parts D and E focus on the problems involved in a broader type of implementation strategy than emissions controls—strategies which involve planning of one sort or another, for example, in transportation, land use and industrial location. All of the planning strategies involve aspects of the urbanization process, and all fall under State Plans. Part D treats the early planning initiatives, which grew mainly out of efforts to restrict vehicle use. These efforts have largely been abandoned, while attention has turned to the problem of accommodating industrial growth, the topic discussed in Part E. Part F provides a brief chronological summary and analysis of events in the recent history of clean air legislation.

(Lange/Cawley)
November 2, 1990
9:15 a.m.
[AIRBILL.DOC]

PRESIDENTIAL REMARKS: CLEAN AIR ENDORSEMENT & TREE PLANTING
CALIFORNIA LUTHERAN UNIVERSITY
THOUSAND OAKS, CALIFORNIA
SATURDAY, NOVEMBER 3, 1990
10:00 A.M.

Thank you. [[Governor Deukmejian, Senator Wilson; Congressmen Gallegly and Lagomarsino... Dr. Jerry Martin. It's a pleasure to see these trees spread beneath a broad and peaceful sky, like -- yes, a thousand points of shade. **And in a few minutes, it's going to be a thousand and one.** \\\ ]]

I'm told the people of Thousand Oaks have invested over a hundred thousand dollars and countless hours in urban forestry management -- something every community in America can do.

Trees mean greener cities and neighborhoods. God's greatest air and noise filters, providers of shade and rest and privacy, they save on cooling costs, and reduce urban smog. But more than that, trees create a sense of **community** in the people who plant them -- and a sense of **continuity** between generations.

That's why I'm so pleased this year's budget has funding to begin our ambitious national tree planting program, "America the Beautiful" -- along with support for the National Tree Trust.

I made a commitment, as a candidate for President, to preserve our environment. **I promised the American people we would break the stalemate that has hindered progress for clean air in this country for thirteen years.** \\\

So a year and a half ago, I gathered together leaders of

both parties; environmentalists; and industry leaders -- because I believed it was time for a new approach.

To make real progress for clean air, the old tradition of simple regulation would never again be enough. **We'd have to take advantage of the innovation, energy, and ingenuity of every American** -- drawing local communities and the private sector into the cause. It was time for a new kind of environmentalism -- driven by the knowledge that a **sound ecology and a strong economy can coexist**.

So I challenged the Congress to work with me on clean air legislation of a completely different kind -- and they've been true to the architecture and spirit of that legislation.

Now, thanks to the support and efforts of leaders like Pete Wilson, [ ], we are on the verge of a major domestic victory for all Americans. As soon as the Congress gets me a bill, **I will sign landmark legislation for clean air.** \\\

It's efficient, effective legislation that will pull **56 billion pounds of pollution** from the air -- **224 pounds** for every man, woman, and child in America, **every day** -- costing each of them only 24 cents a day.

This clean air legislation will **cut the emissions that cause acid rain in half** -- by ten million tons. It will **cut the emissions that cause smog in our cities** -- so that by the end of this century, **over 100 U.S. major cities will have clean, healthy air.** It will **cut dangerous air toxic emissions by 90 percent.** And it **encourages widespread use of alternative fuels.**

Not long ago, I told the nation of my commitment as an environmentalist. Now we can put it in perspective. We're talking about conservation legislation on a scale none had ever attempted before. In its **size** and **scope** of pollution reduction, this isn't the most significant environmental accomplishment of this administration. **It's the single most significant environmental accomplishment in this nation's history**. \\\

[pollution reduction]

And most important, it will work -- efficiently, at low cost -- because it's a bold new departure from the old contentious command and control tradition. It sets tough standards -- but then applies market-oriented strategies, **turning the efforts of industry to environmental advantage.**

It breaks up regional stalemates and conflicts here at home -- and reaffirms U.S. leadership on environmental challenges around the world. Experts from Japan and Europe are already visiting to ask us how we did it. It's sound energy policy, promoting conservation in electric utilities. And it's an important step toward energy security -- promoting new diversity and competition in fuel sources, to reduce our dependence on foreign oil by **over 800 thousand barrels of oil a day**. \\\

But best of all, this legislation taps the remarkable energy and enthusiasm of local communities and American industry. It encourages creative programs around the country -- especially **alternative fuel** efforts like those of Governor Deukmejian, Secretary Sharpless, and Chuck Imbrecht here in California.

In the short time since we issued the clean air challenge,

we've seen a revolution in thinking about fuels. **The time is right. The people are ready. And industry is responding.**

Just two days ago, Amoco opened a station in Washington with a reformulated gasoline. Arco, Marathon, Exxon and others are all offering cleaner fuels. We're seeing compressed natural gas cars from GM, electric vehicles from Ford, and flexible-fueled vehicles from both. [[Look, I'm from Texas. I understand the cultural importance of the barbecue. So let me tell you, I want to make California safe for outdoor cookery.]] R.F.

We're on the verge of a new era for clean air. So to commemorate a milestone in America's environmental history, today we'll plant a tree. Some may see it as purely symbolic -- a gesture. But I think it's something more.

Of all the laws mankind might make, the best are those appealing to our "better angels." As this law reduces and reverses damage done by acid rain and ozone, it will help the trees. In turn, each tree we plant will help reverse the damage man can do. But what we celebrate this day has roots running deeper than law. It is potential for new progress, a planting with no harvest, a promise lasting longer than our lifetimes.

With all we do to clear the air today -- for all now living, for all our kids, and all those yet to live and love this world as we have loved it -- we celebrate a chance to reaffirm what God through nature gives to us -- and to reconfirm the environmental ethic in America.

[[And now, let's let this tree start growing...]]

(Lange/Cawley)
November 1, 1990
6:30 p.m.
[AIRBILL.DOC]

PRESIDENTIAL REMARKS: CLEAN AIR ACT ENDORSEMENT, TREE PLANTING
CALIFORNIA LUTHERAN UNIVERSITY
THOUSAND OAKS, CALIFORNIA
SATURDAY, NOVEMBER 3, 1990
10:00 A.M.

Thank you. Governor Deukmejian, Senator Wilson; Congressmen Gallegly and Lagomarsino... and Dr. Jerry Martin, President of this beautiful college.

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To make real progress for clean air, the old tradition of Federal command and control would never be enough. **We'd have to take advantage of the innovation, energy, and ingenuity of every American** -- drawing local communities and the private sector into the cause.

It was time for a new kind of environmentalism -- driven by the knowledge that a **sound ecology and a strong economy can coexist**. It was time to **harness the power of the marketplace in the service of the environment.**

So I challenged the Congress to work with me on clean air legislation of a completely different kind -- and they've been true to the architecture and spirit of that legislation.

Now, thanks to the support and efforts of leaders like Pete Wilson, [ ], **we are on the verge of a major domestic victory for all Americans**. As soon as the Congress gets me a bill, **I will sign landmark legislation for clean air.** \\\

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It breaks up regional stalemates and conflicts here at home -- and reasserts U.S. leadership on environmental challenges around the world. Experts from Japan and Europe are already visiting to ask us how we did it.

It's sound energy policy -- promoting conservation in electric utilities. And it's an important step toward energy security -- because it reduces our dependence on foreign oil by **over 800 thousand barrels of oil a day.**

promote new competition & diversity in fuel

But first of all, ~~And the reason~~ this legislation ~~has happened, the reason it works, is that it~~ taps the remarkable energy and enthusiasm of local communities, and American industry.

It ~~it~~ encourages innovative programs, ~~here in California and~~ around the country -- ~~[illegible]~~ Herculean-level efforts of Governor Deukmejian, Secretary Skinner, and Chuck Imbrecht here in CA.

it calls for new ideas, like alternative fuels.

Since challenge opened the doors, ~~(people rushed)~~ → a revol. in way we approach fuels for transp.

The time is right. The people are ready. It's time to clear the air.

Just two days ago, Amoco opened a reformulated ~~an alternative~~ fuel station back in Washington -- with a reformulated gasoline that virtually meets the standards this bill sets for 1995.

Superior Oil, Texas, Kerr-McGee. Arco, Marathon, & others are also offering cleaner fuel. [illegible] Clean Coal (+)

~~other companies~~

... the beginning of a new era of environmental achievement.

-- a new era of cooperative work, means reduced costs & clean environment for everyone

So to commemorate a milestone in America's environmental history, today we engage in the simple act of planting a tree. Some may see it as purely symbolic -- a gesture -- but I think it's something more.

Of all the laws mankind might make or break, the best -- like law I'll soon sign -- are those we know are right. If we could make it so, all laws would be appeals to our "better angels." But what we celebrate today has roots running deeper than any law. It is a planting with no harvest, a potential for new progress, a promise lasting longer than our lifetimes.

Among these trees whose architects have been the ages, we plant another, as a promise.

With all we do to clear the air today -- for all now living, for all our kids, and all those yet to live and love this world as we have loved it -- we celebrate a chance to give to nature some of what, through God, it gives to us.

What we celebrate this day -- reducing and reversing damage done by acid rain and ozone -- will help the trees. And in turn, each tree we those trees themselves will help reduce, reverse the damage man can do.

Today, and every day, through a thousand actions great and small,

turn the cycle of cynism to a greater tide of optimism -- confirm the powerful cycle of nature -- of renewal and restoration -- and bring about a rebirth of America's environmental ethic.

THE WHITE HOUSE
WASHINGTON

Clean air

- alt fuel event
- adv of bill

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324 3326
CA Energy Comm
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get info on what they're doing

GM
Ford > Vehicles

UPS - converting fleet to nat gas

U of NB RD progr on conv programs

This bill: saves 500,000 - 1M barrels/day of imported oil

State Air Pollution Control Laws

As recently as 1963, only 14 states had laws providing for air pollution control on a statewide basis, while two others had limited-coverage laws.

Under the impetus of federal legislation aiding state programs, 46 states now have such laws, although some still have too limited coverage to meet the requirements of the federal Clean Air Act of 1967.

Most of this state legislation was enacted in 1967. Forty-eight states had legislative sessions that year and 39 of these considered air pollution control bills. Twenty legislatures enacted comprehensive air pollution control laws, and six others adopted amendments to strengthen existing legislation.

With minor variations, the procedures for developing and promulgating regulations for air pollution control are similar in most states. Usually, the control-agency staff drafts the proposed regulations, with either formal or informal assistance or review by outside technical experts and affected interests. Then formal hearings are held, followed by official action by a state board or commission.

Federal officials report that some states have not been vigorous in implementing their control authority, however. In his 1968 report on the Clean Air Act, the Secretary of Health, Education, and Welfare said that "they have failed to adopt emission standards or ambient air quality standards as part of their regulatory activities." But he added that there is some recent evidence of improvement, especially in the newer state programs.

Twenty states have adopted emission standards, as compared with 14 a year earlier and seven in 1963. Other states currently are in the process of formulating standards.

State resources devoted to air pollution control also have increased greatly during the last few years. Before the Clean Air Act, the total annual allocation for state air pollution control programs amounted to a little over $3-million. California alone accounted for more than half the total, with New York and New Jersey having

ıe only other programs with budgets over $100,000. Now, total ınual budgets have more than tripled, and 22 states have pro-ams with spending exceeding $100,000.

About half the states also have legislation exempting industrial ɔllution control facilities from taxes of one sort or another.

This book contains a summary of the status of the law on air ɔllution control in each state, the District of Columbia, Puerto ico, and the cities of Chicago, Detroit, New York, Philadelphia, ıd Pittsburgh. The states without general air pollution laws are labama, Maine, Nebraska, North Dakota, and South Dakota. ıese states do have laws on the abatement of nuisances which ay be applied to air pollution.

The entire text of the California statute is reproduced, by way example, because California has the most advanced program of r pollution control of any state. The California law was exten-ɣely amended in 1968, with the motor vehicle pollution control ctions completely rewritten. Massachusetts, Vermont and Puerto ico adopted new laws in 1968, as did Congress for the District of ɔlumbia.

The text of suggested state legislation developed by the Coun-l of State Governments also is reproduced. Many of the state stat-es have been based on this model law.

STATE AIR POLLUTION CONTROL LEGISLATION

	Control	Local Option	Tax Incentives	Regulations
labama				
laska	X			X
rizona	X*	X		
rkansas	X			X
alifornia	X	X	X	X
ɔlorado	X	X		
ɔnnecticut	X	X	X	X
elaware	X			X
strict of Columbia	X			
ɔrida	X	X	X	X
orgia	X	X	X	X
ıwaii	X	X		X
ıho	X	X	X	
inois	X	X	X	X
liana	X	X	X	
va	X	X		X
nsas	X	X		

STATE AIR POLLUTION CONTROL LEGISLATION—Contd.

	Control	Local Option	Tax Incentives	Regulations
Kentucky	X	X		X
Louisiana	X			X
Maine				
Maryland	X	X		X
Massachusetts	X	X	X	X
Michigan	X	X	X	X
Minnesota	X	X	X	
Mississippi	X	X		
Missouri	X	X		X
Montana	X	X	X	
Nebraska		X		
Nevada	X	X		
New Hampshire	X		X	X
New Jersey	X	X	X	X
New Mexico	X	X		
New York	X	X	X	X
North Carolina	X	X	X	
North Dakota	X*			
Ohio	X	X	X	
Oklahoma	X	X		
Oregon	X	X	X	X
Pennsylvania	X	X		X
Rhode Island	X		X	X
South Carolina	X	X	X	X
South Dakota				
Tennessee	X	X		
Texas	X	X		X
Utah	X	X		
Vermont	X			
Virginia	X	X		X
Washington	X	X	X	
West Virginia	X	X	X	X
Wisconsin	X	X	X	
Wyoming	X		X	X
Puerto Rico	X			
Virgin Islands	X			

*Limited coverage under general health provisions.

overcome. Second, Congress is silent with respect to the size of regions within which trade-offs may be made. It is possible that sources far apart can substitute for one another, regardless of the real impact on the population in the area. Under such loose restrictions new industries may search out the most readily abated sources of pollution, regardless of how they relate to the problem posed by the new facility, leaving the most difficult and expensive pollution problems to be solved under State Plans. EPA is aware of this problem, but has merely asked states to use a "reasonable cutoff on the geographic content of the air quality calculations."[351] Third, EPA limited new source review to only those sources emitting more than 100 tons of pollutants a year.[352] The limitation allows many significant polluters to escape review and is especially worrisome in the instance of "staged" construction of large facilities such as petrochemical plants, wherein the complete facility may emit more than 100 tons, but no single individual stage would emit 100 tons; if each "stage" is the relevant unit, the facility could escape new source review. Fourth, Congress based the trade-off potential of existing facilities on their allowable, rather than their actual, emissions.[353] Since some facilities are not polluting up the maximum limits allowed by law, they may either trade-off "paper pollution" or deliberately increase their emissions in order to have more pollution to trade-off in the future. With the poor record of enforcement of existing State Plans, it is likely that there will be an even greater future divergence between Plans and reality under this policy. Finally, neither Congress nor EPA demanded that the old source be shut down before construction of the new one begins. Thus, once the new facility is in place, industry can balk at compliance for years. The dispute between the Bay Area Air Pollution Control District and Standard Oil of California's Richmond refinery may be an omen; Standard Oil reneged on an agreement to shut down two older units while at the same time it began operating a new one.[354]

Unless stringent conditions are set for emissions offsets and unless such conditions are met in practice, the new air trade-offs policy will mean that primary air standards will never be met in the face of continued urban-industrial growth.

[351] 41 Fed. Reg. 55,526 (1976).

[352] *Id.* at 55,558.

[353] Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 129(b), 91 Stat. 745, 748 (1977)(to be codified in 42 U.S.C. § 7503(1)(A)).

[354] *See* San Francisco Examiner, May 15, 1977, at 1; San Francisco Chroncile, July 8, 1978, at 2, col. 1.

F. Summation: Stages of Erosion

The preceding review of the erosion of the Clean Air Act is familiar to those who have watched the progress of the law over time, although some of the matters described are subject to interpretation regarding their impact on the Act's successful implementation and the realization of clean air in the long run. This article adopts a pessimistic view toward the ultimate effectiveness of the Act. Only time will vindicate or reprove this view. However, the legacy of past failures, which began before 1970,[355] leaves little confidence in the future attainment of the 1970 Act's goals.

The chronology of the Act's rise and fall divides into stages, separated by the major legislative interventions of Congress. From 1963 to 1970, timid actions by Congress could not placate the growing concern over worsening air quality and public exasperation with the futility of weak legislation. The 1970 Clean Air Act resulted.

The 1970 Act marked a new stage of development. EPA, environmentalists and industry were all involved in the great experiment. Although erosion of the Act began immediately, it did not become decisive until 1973-74 when major crises struck energy supplies, the automobile industry and the economy in general.[356] Congress reacted with the Energy Supply and Environmental Coordination Act of 1974, which formalized EPA's delaying actions, further delayed auto emission deadlines, virtually ended EPA's efforts to institute transportation controls and initiated a coal-based energy policy which runs directly against the interests of clean air. As the original target year of 1975 passed, the Act's goals had been deemed unrealistic and unenforceable, and most of its deadlines were waived.

After a brief respite, pressure against the Act began building once again. The pressure came from several quarters: the new deadlines were approaching, the continuing recession placed economic burdens on major polluting industries such as electric utilities and steel, certain industries sought to locate in new areas such as the Colorado Plateau, industry launched a new wave of investment in plants in metropolitan areas and corporations, labor and others developed a fear of "no-growth" policies which evolved at a time of economic stagnation.[357] The predictable result was that in 1976-77, Congress once again amended the Clean Air Act.

[355] *See* J. Esposito, *supra* note 6.

[356] *See* Walker & Large, *supra* note 227.

[357] For a discussion of these forces see text at notes 368-417, *infra*. *See also* Walker, Storper & Gersh, *supra* note 343.

The new Amendments released the growing political and economic pressure against compliance measures by such means as the delay of auto emission deadlines, the policy of allowing significant deterioration of air quality in certain geographic areas, the use of emissions offsets which allowed growth in non-attainment areas and the delay of State Plan deadlines which legitimized non-attainment of standards and non-compliance with the Plans. Senator Edmund Muskie summarized the erosion of the Clean Air Act by the 1977 Amendments in these terms:

> All in all, Mr. President, this bill represents something less than that which we set out to do in 1970. Under this legislation, the Administrator of the Environmental Protection Agency will have fewer tools to accomplish the job of protecting America's health and welfare from the threat of air pollution . . . . So, Mr. President, we begin again.[358]

The enactment of the 1977 Amendments commences yet another stage in the evolution of the Clean Air Act. It is likely that pressure will again mount for a relaxation of standards and deadlines as the general revised target date of 1982 approaches; suits will be filed, EPA will take various actions, states will respond and, in all probability, Congress will have to re-enter the arena to clarify *de facto* policies.

This is not to say that all the goals and means for attaining such goals in the 1970 Act have been abandoned or that progress in cleaning the air may not actually continue to be made. But if past experience is any guide, promises of future compliance — of making "reasonable progress" toward clean air — are not very reassuring. In fact, the preceding examination of the Act's history indicates that the pressures to restrict enforcement of the Act are deeply rooted in the basic political and economic relationships of our society. In the next three sections this article will examine some of these relationships in order to describe the systematic forces arrayed against cleaning up the air.

IV. The Role of Government in the Failure of Regulation

Although the preceding discussion documents the systematic erosion of the Clean Air Act, it does not explain why that erosion occurred. By attending too closely to the "law" as such, one will deal only with formal results and apparent causes. The form of the law directs one's attention to the stated ideas and logical reasoning of

[358] 123 Cong. Rec. S13,696-97 (daily ed. Aug. 4, 1977)(remarks of Sen. Muskie).

decision-makers in the various branches of government. Thus, most critics of the erosion of the Clean Air Act ascribe the failure of "law" to a failure of judicial logic or administrative willpower.[359] However, this kind of reasoning forcibly extracts individuals, ideas, the legal system and government as a whole from their real social context in an unsupportable manner.[360] In order to ferret out the underlying causes of social outcomes, one must address the material forces of political and economic life which impinge upon the formal, legal decisions of government agents. This is not to say that ideas and wills do not enter into the process, but rather that they are ideas and wills of real people, in and out of government, who are grounded in real class positions, real social roles and a real economic system with its own distinct requirements for successful reproduction.[361] Considerations of self-interest, expertise, personal judgment and legal consistency all play a part, but always with respect to the restraints inherent in the functioning of the larger social structure.

Government is neither independent from society, nor is it a neutral arbiter in social conflict. Its institutions, personnel and policies are all arenas of social struggle. Indeed, governments only come into being through an historical process of political conflict over what needs doing and how it should be done.[362] Any specific effort to control social life and the economy which government undertakes, be it through the regulatory process, the consideration of a bill in Congress or the institution of enforcement proceedings against violators, necessarily contains ongoing conflict over means and ends.[363]

The personnel of regulatory agencies act under varying degrees of influence from two general types of political forces: (1) *external* pressures exerted on them directly by lobbying, threats and promises by the powerful, legal suits, mass political protest, voting and so forth; and (2) *internal* forces, generated within each person by his/her own judgment regarding the meaning of laws, by his/her own beliefs as to what is right and proper or by his/her own understand-

[359] *See, e.g.*, Kramer, *supra* note 4.

[360] On the material structural analysis of society, *see* D. Harvey, Social Justice and the City (1973).

[361] On the relation of individual ideas and will to society and its roles, *see* R. Williams, Marxism and Literature (1978); R. Bernstein, The Restructuring of Social and Political Theory (1976); R. Park, The Idea of Social Structure (1974); D. Harvey, *supra* note 360.

[362] *See generally* Esping-Anderson, Friedland & Wright, *Modes of Class Struggle and the Capitalist State*, Kapitalistate 186 (Summer 1976).

[363] On the idea of government policy as process *see* W. Domhoff, Who Really Governs (1976); J.L. Davies & B. Davies, *supra* note 6; P. Bachrach & M. Baratz, Power and Poverty (1970).

ing as to what it is possible to do under prevailing social conditions. "Internalized" forces are, of course, not random, but are conditioned by several external social mechanisms: by a pervasive ideology which provides a definite view of how the world works and how it ought to work, by a previously established system of law, by the threat of external intervention if the wrong action is taken and by an operating economic system which gives clear signals of distress when government pushes too hard. The preceding arguments serve to break down the practical distinction between abstract "policy" and actual "implementation" when agencies must choose how to interpret the broad rules handed down to them, when the courts, the President's office and states react and interact with agency actions and, finally, when Congress reconsiders its proclamations in light of actual implementation efforts. Similarly, clean lines between "government" and "the private sector" do not exist, not only because government personnel—particularly the leadership[364] — move freely back and forth between public and private life, but also because the general "pressures and limits"[365] of social and economic reproduction impinge on government and citizenry alike.

Moreover, constant reconsideration of regulatory measures is necessitated not only by changing economic and political circumstances, but also because sectors of society rarely know unambiguously what their interests are, or what is possible within the realm of political change. Hence, government policies, especially reform efforts such as the Clean Air Act, are very much *experiments* in limited change. Such experiments are undertaken in a highly politicized setting where outlines of political power, economic imperatives and ideological motivation are already established. The virtue of the Clean Air Act as a case study in regulatory experiment and failure is that it provides a good step-by-step history of the dismantling of initial goals which turned out to be "unrealistic" in terms of the subsequent impacts they actually had, or threatened to produce, on the economy.[366]

The relatively loose structure of the representative and federal forms of government are quite useful for societal adaptability and

[364] W. Domhoff, The Powers that Be (1978); R. Miliband, The State in Capitalist Society (1969).

[365] The phrase is from Williams, *supra* note 36, at 87.

[366] In this case the law has not stood in isolation from reality owing to tacit non-enforcement as is often the case. It has, instead, had to be openly modified over time in light of efforts to enforce it. This outcome owes much to the constant prodding of the government by environmentalists armed with the right to sue for non-action — one of the many progressive features of the Act itself. See text at note 29, *supra*.

long-term stability because it provides a degree of access to power by various interests and a way to experiment with social change.[367] Nonetheless, it cannot guarantee that such experiments will succeed. The Clean Air Act had to be modified because government could not resolve harmoniously the conflicting demands of clean air goals and economic growth, energy independence, suburbanized city structures and other interests. In the course of searching for ways to attain statutory air pollution goals, the government moved from the realm of formal law to substantive economic questions. What began as a supposedly simple effort to abate air pollution threatened to draw government into the establishment of substantial controls over such a wide range of economic activity as urbanization, industrial investment, energy use and land use. Hence a single-purpose act threatened to become a wide-ranging program of national economic planning, and began to affect a wide range of variables in the private sector. When economic disruption or the prerogatives of the private sector are imminently threatened, however, an ostensibly open, loosely organized and "pluralistic" government can react decisively to limit change, whether by restraints imposed on one branch of government by another, or by restraints imposed by higher levels of bureaucracy on lower levels. If, on the other hand, government cannot internally set its own limits, powerful outside forces will act upon the government to restrict change.

The following section analyzes in greater detail the central "structural" imperatives of the political economy which forced the government to retreat from the regulatory goals it established in the Clean Air Act of 1970.

V. Political-Economic Barriers to Implementing the Clean Air Act

The discussion of the legal erosion of the Clean Air Act demonstrates the existence of a group of political-economic barriers to the government's implementation of the Act as written. These barriers make it, in effect, impossible simply to legislate clean air.

[367] This openness is strongly favored where the dominant class is relatively competitive and regionally dispersed, and where the economic system is highly dynamic and must continually innovate to overcome barriers to accumulation, as is the case in American capitalism. A degree of openness can even help to preserve class domination, since some demands from below *can* be met without jeopardizing upper class prerogatives and power. In strictly class terms, however, American government is considerably less open to influence than popular ideology would have us believe. See note 364, *supra*.

concentrated in certain regions, these regions are currently suffering from generally unhealthy economies.[379] A dramatic example is the so-called "decline of the northeast" (or "snowbelt"), marked by persistent high unemployment, local government fiscal crises, urban decay and generally poor economic growth.[380] In such situations the enforcers of the Clean Air Act again face a dilemma not of their own making, in which they have the power to tip the scales against a community or region. Naturally, there is intense local resistance to further dislocation. Recently the Carter Administration declared a national policy of aid to distressed areas;[381] as a result, EPA has relaxed its strict enforcement of clean air standards in such problem areas as the old steel-producing region of the northeast[382] and has retreated from its transportation planning in such areas as the troubled New York metropolitan region.[383]

The government has failed to impose strict enforcement on Los Angeles, too, even though it is part of the growing sunbelt region. Drastic restrictions, such as EPA's gas rationing scheme,[384] could easily tip regional favorability away from Los Angeles. In fact, all regions compete for capital investment which overzealous pollution control may discourage, so there is a strong incentive among local and state governments to lower their environmental standards, not to mention taxes and other regulations.[385] This was clearly demonstrated by recent events in California, where renewed enforcement of air pollution regulations gave the state a sudden reputation for a "bad-business climate."[386]

D. *Fixed Character of Urban and Regional Patterns*

Spatial patterns have considerable impact on the amount of pollution generated, especially by automobiles and other means of transport; existing space-extensive patterns of urbanization are not conducive to clean air and may have to be restructured in the interests of public health.[387] However, EPA's rather feeble efforts to effect such changes have met with severe local opposition and were rather quickly abandoned.[388] This failure is not a simple result of the immutability of urban spatial patterns, although, because the organizational structure of the city is literally frozen into stone and steel as factories, highways and cities,[389] change can be very costly and socially disruptive. Rather, certain features of the political economy of American society systematically militate against such change. First, urban spatial patterns have arisen historically for rather deep-seated reasons deriving from the nature and evolution of the United States.[390] Regardless of the historical reasons for existing patterns, attempts to alter the present organization of the cities conflict with deeply ingrained interests and expectations of many elements of society. Second, change is opposed because it threatens profits, wages and individual income flowing from the existing set of urban activities; moreover, such costs are not borne evenly or without economic disruption.[391] Hence, the straightforward—if difficult—problem of restructuring the organization of urban space in the interests of public health is easily perceived as a "trade-off" between clean air on the one side and jobs, higher prices, dislocation and disruption on the other.[392]

E. *Threat of Halting New Growth*

Critics of the Clean Air Act have accused its enforcers of stopping new growth, whether it be growth around major urban areas which already have a serious air pollution problem[393] or growth in pre-

[379] On the relationship between obsolescent industrial base and regional economic decline *see* Watkins & Perry, *Regional Change and the Impact of Uneven Urban Development*, in THE RISE OF THE SUNBELT CITIES 19 (D. Perry & A. Watkins eds. 1977).

[380] *See* THE FISCAL CRISIS OF AMERICAN CITIES (R. Alcaly & D. Mermelstein, eds. 1977); G. STERNLIEB & J. HUGHES, *supra* note 303.

[381] Address by President Jimmy Carter, "New Partnership to Conserve America's Communities," Statement on National Urban Policy, at the White House (March 21, 1978). *See also*, "Toward Cities and People in Distress," a draft of the National Urban Policy Statement submitted by the President's Urban and Regional Policy Group (Nov. 15, 1977).

[382] See text at notes 154-61, *supra*.

[383] See text at notes 250-55, *supra*.

[384] See text at notes 242-44, *supra*.

[385] For a good example of what can happen in this regard *see* Chernow, *The Rabbit that Ate Pennsylvania*, MOTHER JONES 19 (Jan. 1978). *See also* Harrison & Kanter, *The Political Economy of State "Job-Creation" Business Incentives*, in REVITALIZING THE NORTHEAST (G. Sternlieb & J. Hughes eds. 1978).

[386] *See* Walker, Storper & Gersh, *supra* note 343.

[387] *See, e.g.*, B. BERRY *et al.*, LAND USE, URBAN FORM AND ENVIRONMENTAL QUALITY (1974); Kurtzweg, *Urban Planning and Air Pollution Control*, 39 J. AM. INST. OF PLANNERS 82 (1973).

[388] See text at notes 228-76, *supra*.

[389] Harvey, *The Geography of Accumulation*, in RADICAL GEOGRAPHY 263 (R. Peet ed. 1977).

[390] *See* R. Walker, The Suburban Solution (1977), unpublished Ph.D. Dissertation, Baltimore, Johns Hopkins University (available from University Microfilm, Ann Arbor, Michigan and Johns Hopkins University library). See also Walker, *The Transformation of Urban Structure in Mid-Nineteenth Century American Cities and the Beginnings of Suburbanization*, in URBANIZATION AND CONFLICT IN MARKET SOCIETIES (K. Cox ed. 1978); Gordon, *Class Struggle and the States of American Urban Development* in RISE OF THE SUNBELT CITIES 55 (D. Perry & A. Watkins eds. 1977); Watkins & Perry, *Regional Change and the Impact of Uneven Urban Development*, in THE RISE OF THE SUNBELT CITIES 19 (D. Perry & A. Watkins eds. 1977).

[391] Mumy, *supra* note 373 and Mumy, *Economic Systems and Environmental Quality*, to be published in 11 ANTIPODE (1979).

[392] *Id.*

[393] See text at notes 334-54, *supra*.

have themselves proven to be hazardous.[415] Catalytic converters, which have successfully reduced most automobile emissions, produce increased emissions of sulfuric acid.[416] Powerplants in their search for coal and their avoidance of air standards have relocated to the Rocky Mountain region where they no longer pollute the already substandard air of metropolitan areas, but rather degrade previously pristine airsheds.[417] Indeed, it appears that the only development which the enforcers of the Clean Air Act can definitely anticipate is unanticipated change.

VI. Conclusion: Why Government Cannot Regulate and Plan for Clean Air

In the last twenty years, public sentiment against increasing pollution of the environment produced a change in philosophy toward pollution problems. Abandoning the former *laissez-faire* attitude, environmentalists and other clean air advocates have apparently adopted the view that the solution to pollution problems lies in government regulation. This article has questioned the ideology of regulation, which is so prevalent in American politics.

The perception of the problem of governing in our society as one of mobilizing popular sentiment, passing a law and creating a government agency to enforce the law is a mystification of political-economic reality. Such a simplistic perception is more prevalent than might be supposed.[418] Yet, even more sophisticated views still mystify the actual processes of social control and social change by explaining the phenomenon of regulatory failure — and hence the basic difficulty of controlling conditions of society such as air quality and energy use — as, *inter alia*, failures in logic by the architects of regulatory programs, failures of will on the part of those who were to implement and enforce the programs, failures of judicial logic in interpretation of the Act and regulations or "capture" of regulatory agencies. This article strives to pierce the layers of illusion to reveal the real nature of the problem of societal self-governance which underlies the failure of regulation.

[415] See text at note 203, *supra*.

[416] See text at note 186, *supra*.

[417] See text at note 304, *supra*.

[418] There seems to be an assumption that regulation acts simply and directly, and that the issuance of a rule or an order by an administrative agency results in the achievement of the mandate and the purpose of that rule or order without any complicating consequences. This assumption is not to be found explicitly in any discussion but seems to be implied in most of the literature.
D. Savage *et al.*, The Economics of Environmental Improvements 168 (1974).

Any belief that the original goals of the Clean Air Act would be met on schedule has been destroyed by the passage of time. The 1975 goals may still be reached in the future. Yet, although such speculation cannot be proven false before the fact, the relatively limited progress made toward cleaner air and the erosion of the law which was designed to achieve that goal strongly indicate that clean air standards will not be met. Faced with the present reality of unmet goals and eroded law, various agents of government and the legal system must shoulder the blame. EPA, in particular, is a primary target for criticism. However, all agents have weakened at one time or another, and EPA often took a strong stand on issues only to be overridden by the President, courts or Congress. Thus, major change is difficult unless all branches of government move simultaneously.[419]

"Government" is not the source of the problem, however. Government actors are typically moved by external political forces, and government policies encounter barriers to their realization in the external economic environment. The economic structure and its imperatives are the origin of the once-removed, but politically powerful, obstacles to successful implementation of the Clean Air Act and the source of erosion of the Act. Government cannot overcome these barriers and simply regulate and plan for clean air because it does not have sufficient power. The regulators do not control the central variables which determine the amount and kind of pollutants which are put into the air. They do not control the key decisions over production, investment, employment and location. They can only try to redirect the decisions of those who do have these basic economic powers. Moreover, government lacks control over the collective result of private economic activities. Congress and EPA do not have the wherewithal to prevent an industrial crisis in steel or automobile manufacturing nor to countermand the international recession and inflation of the 1970's. Their role is limited to a "realistic" reaction to such exigencies. The indirect power of the economic system disciplines the regulators and their supporters by means of crisis. It forces them to retreat from strict enforcement of pollution laws for fear of creating unemployment, triggering regional economic decline or disrupting the economy severely by penalizing a major industry. Similarly, regulators cannot redirect the path of economic development, whether this means reorganizing the spatial layout of cities, revising a wasteful pattern of intensive energy use

[419] *See* P. Bachrach & M. Baratz, *supra* note 363.

or reorienting the country's transportation system. Such enterprises would require not only that command over economic decisions which government does not have, but also would require time to rebuild the physical environment of human activity and effect complex social change, which no single piece of legislation can achieve.

Clean air regulations are thus limited by the parameters of government power. They are also limited by the positive exercise of power by the class in society which has the most to lose from successful societal control over production and investment decisions—the owners and managers of capital. Such power expresses itself directly and indirectly. Business can resist regulation and limits on its freedom to make a profit when and how it chooses through the direct use of economic power. This resistance takes such forms as lawsuits, noncompliance or relocation to avoid areas with strict regulation; it may be transformed into political power such as lobbying or support from voters who would be hurt by relocation. The cumulative decisions of private capital are also fundamental in shaping the patterns of urbanization, transportation and energy-use that exist today and confront government regulators as givens.[429] This shaping power of capital extends into the future as well; as capital changes societal patterns, regulators appear only to be chasing after it—coping with new hazardous products, new locations for powerplants and new industrial processes. Finally, however, private power is also confined within a certain range prescribed by the exigencies of social reproduction as a whole and by the cumulative impact of a multitude of individual decisions made by the purveyors of capital. U.S. Steel and General Motors, despite their size, are as powerless as EPA to prevent recession or regional change.

The division and inequality of power and the role of economic imperatives do not reduce the reality of the political economy to either total domination by economic imperatives or economic determinism. Regulation can effect change; it already has produced cleaner air. Without the Clean Air Act of 1970, air quality probably would not have shown any improvement, and worse conditions might now prevail. The evidence presented in this article chronicles the erosion of the Act, but it also shows how the political activities of clean air advocates have played an important role in influencing the actions of regulators and attaining the gains that have so far been made.

To a large degree, then, the perception of government as regulator

[429] *See* Walker & Large, *supra* note 227.

is also a myth; instead, the government is an arena where contending forces do battle over the conditions of social life, such as the quality of air, and society struggles to discover the possibilities for improving the way we work, live, govern ourselves—and breathe. If clean air is found not to be achievable given presently existing barriers in social organization, then, perhaps, it is not new laws that are needed but a transformed economic and political system as a whole.

POSTSCRIPT

Between the time this article was completed (mid-1978) and the final preparations for its publication were made (early-1979), a few noteworthy events occurred which further corroborate the article's theme of "erosion" of the Clean Air Act.

*For the first time, a primary ambient air quality standard has been relaxed. On January 26, 1979, Environmental Protection Agency (EPA) Administrator Douglas Costle lowered the ozone standard from 0.08 parts per million to 0.12 parts per million, a fifty percent increase.[1] Although EPA claimed that its action could be justified by new health research findings,[2] this claim was vigorously disputed by environmentalists and by the California Air Resources Board.[3] The American Petroleum Institute, on the other hand, said that it would file suit to lower the standard still further.[4]

*According to the Clean Air Amendments of 1977, new State Implementation Plans must be forthcoming by January 1, 1979 for areas still not in compliance with air quality standards.[5] As of the January 1, 1979 deadline, however, not one state had submitted its plan to EPA.[6]

*Opponents of the Clean Air Act won an important strategic victory in California with respect to the preparation of the revised

[1] 44 Fed. Reg. 8202 (1979) (amending 40 C.F.R. § 50.9). The revision also changed the chemical designation of the standards from "photochemical oxidants" to "ozone," the principal, but far from sole, component of photochemical smog. *Id.* Only two cities out of 105 being monitored currently meet the standard; EPA estimates that 15-20 smaller cities will meet the new standard. Most large cities are considerably above both standards; Los Angeles is the worst. San Francisco Chronicle, Jan. 27, 1979, at 1, col. 2.

[2] *See* 44 Fed. Reg. 8203-04, 8207-11 (1979).

[3] San Francisco Chronicle, Jan. 27, 1979, at 1, col. 2.

[4] *Id.*

[5] Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 172, 91 Stat. 746 (1977) (to be codified in 42 U.S.C. § 7502).

[6] Personal communications with an anonymous EPA official, San Francisco Regional Office, March 3, 1979.

State Plan. Owing to its history of leadership in air quality control, California is widely considered to be a test case for how vigorously other states will respond to the new deadline. Therefore, any weakening of that state's resolve redounds to the detriment of EPA's willingness to pressure less aggressive states.

The first step in the California-based opposition effort to undermine state planning was to attack local efforts to prepare regional air quality plans which would ultimately be incorporated in the State Plan. The San Francisco Bay Area Environmental Management Plan, drafted by a task force under the auspices of the Association of Bay Area Governments, is the most important of these air quality plans. The Bay Area Environmental Management Plan was stimulated by and funded under Section 208 of the 1972 Federal Water Pollution Control Act,[7] and originally consisted of two units: air and water. Under fire from business-led organizations such as the California Council for Economic and Environmental Balance, the Committee on Labor and Business and the Bay Area Council,[8] the task force ultimately dropped proposed land use controls thereby weakening the air pollution control plan.[9] This remained an equivocal victory for the organizations, however, because the State Air Resources Board, under Tom Quinn, still had final say over the State Plan. However, opponents of the Board went to the California legislature with a bill which said that the Air Resources Board could not revise the air management plan, but must include it as is in the final State Plan.[10] Governor Brown signed the bill into law in September, 1978, over the objections of his own close advisor, Quinn.[11]

*Emboldened by the preceding success, the Clean Air Act opposition introduced bills in both houses of the California legislature which would force the Air Resources Board to submit the final State Implementation Plan to the legislature for approval before it could be forwarded to EPA.[12]

*On January 23, 1979, the California Energy Commission and the State Air Resources Board adopted a joint policy aimed at streamlining government permit procedures for powerplants. The policy gives final authority to the Energy Commission and allows the Commission to override local air pollution control districts if necessary.[13] This move was sharply attacked by local district authorities in Southern California and by environmentalists.[14] A spokesman for Friends of the Earth objected to the policy on the grounds that "[i]t comes down to power plants not having to meet state standards when all other industries do."[15]

*Finally, a national congress of business and labor groups was held in San Francisco in January, 1979, to consider methods for compelling Congress to amend the Clean Air Act and to eliminate its most objectionable features. This bold offensive against the Act was sponsored by such organizations as the American Petroleum Institute, the Bay Area Council, the Commission on Labor and Business, the Construction Industry Advancement Fund and the California Council for Economic and Environmental Balance, with the latter serving as host.[16] Clearly, the success of campaigns against environmental regulations in California directed by well-funded united-front organizations, like the Council for Economic and Environmental Balance, has moved the business-led forces of opposition to a new level of coordinated activity in place of the more or less random acts of legal obstruction and non-compliance characteristic of their past struggle against the Clean Air Act.[17]

[7] 33 U.S.C. § 1288 (1976).

[8] *See, e.g.*, [San Francisco] Bay Area Council, Bay Area Council Bulletin (No. 17, Feb. 1979) for these business-led organizations' attitude toward pollution control.

[9] Association of Bay Area Governments (ABAG) Environmental Management Plan for the San Francisco Bay Region, final version approved by ABAG on Jan. 13, 1979.

[10] SB 2167 (1978).

[11] Personal communications with an anonymous member of the Air Resources Board Staff, Sacramento, California, Sept. 21, 1978. *See also* Bay Area Council Bulletin 6 (No. 17, Feb. 1979).

[12] SB 228 and AB 300 (1979).

[13] San Francisco Chronicle, Jan. 24, 1979, at 1, col. 1.

[14] *Id.*

[15] Ron Rudolph, *quoted in* Not Man Apart, Feb. 1979, at 6, col. 1.

[16] An idea of the antagonistic tone of the Conference (for which there are no transcripts) can be had from the excerpts of speeches printed in the Bay Area Council Bulletin 2-4 (No. 17, Feb. 1979).

[17] For more on the crucial anti-regulatory initiatives of business and labor in California *see* Walker, Storper & Gersh, *The Limits of Environmental Control: The Saga of Dow in the Delta*, to be published in 11 Antipode (1979).