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DEBORAH I. DINGELL

President
General Motors Foundation

July 2, 1999

Mr. Roger Ballentine
Office of the Vice President
The White House
Washington, DC 20500

The attached article in *USA Today* shows that CAFE has political opponents on both sides and continues to be a political issue everywhere, not just the Midwest.

Debbie

P.S. I am also attaching a copy of the UAW letter to the Hill opposing CAFE increases.

Beth Vioz suggested I send this to you.

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flights today between Burlington, Vt., and its Cleveland hub.

Two-for-one: British Airways extended until midnight

on a deal giving a free round-trip ticket between London and 22 U.S. cities with each economy round trip bought for flights by Oct. 1. Free ticket is good

gung Pack Express opened in United terminal.

Sky ple: American now offers Uno pizzas on many international flights.

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SPECIAL REPORT

Death by the gallon

A USA TODAY analysis of previously unpublished fatality statistics discloses that 46,000 people have died because of a 1970s-era push for greater fuel efficiency that has led to smaller cars.

By James R. Healey
USA TODAY

Californian James Bragg, who helps other people buy cars, knows he'll squirm when his daughter turns 16.

"She's going to want a little Chevy Cavalier or something. I'd rather take the same 10 to 12 thousand bucks and put it into a 3-year-old (full-size Mercury) Grand Marquis, for safety.

"I want to go to her high school graduation, not her funeral."

Hundreds of people are killed in small-car wrecks each year who would survive in just slightly bigger, heavier vehicles, government and insurance industry research shows.

More broadly, in the 24 years since a landmark law to conserve fuel, big cars have shrunk to less-safe sizes and small cars have poured onto roads. As a result, 46,000 people have died in crashes they would have survived in bigger, heavier cars, according to USA TODAY's analysis of crash data since 1975, when the Energy Policy and Conservation Act was passed.

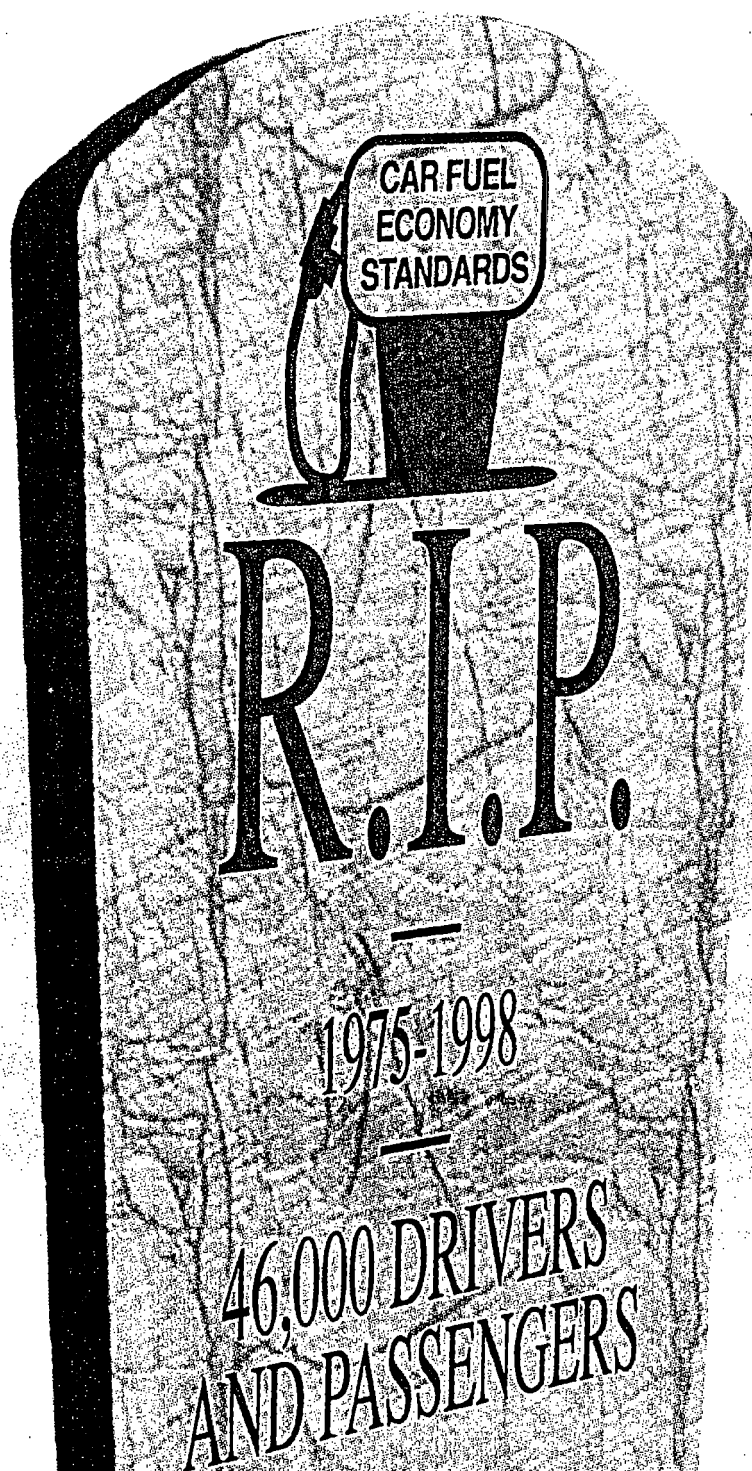
The law and the corporate average fuel economy (CAFE) standards it imposed have improved fuel efficiency. The average of passenger vehicles on U.S. roads is 20 miles per gallon vs. 14 mpg in 1975.

But the cost has been roughly 7,700 deaths for every mile per gallon gained, the analysis shows.

Small cars — those no bigger or heavier than Chevrolet Cavalier or Dodge Neon — comprise 18% of all vehicles on the road, according to an analysis of R.L. Polk registration data. Yet they accounted for 37% of vehicle deaths in 1997 — 12,144 people — according to latest available government figures. That's about twice the death rate in big cars, such as Dodge Intrepid, Chevrolet Impala, Ford Crown Victoria.

"We have a small-car problem. If you want to solve the safety puzzle, get rid of small cars," says Brian O'Neill, president of the Insurance Institute for Highway Safety. The institute, supported by auto insurers, crash-tests more vehicles, more violently, than all but the federal government.

Little cars have big disadvantages in crashes. They have less space to absorb



Myths about small cars

Myths about small cars. Here are two of the most why they are wrong:

1 Small cars have a rate because they those big sport-util over the roads.

Fact: In 1997, latest-av ment data, 56% of small-volved only small cars: 46 car crashes, 10% from sn ning into each other. Just small-car deaths in 1997 i sions with midsize and lar 136 out of 12,144 total sn that year.

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- Making small cars s

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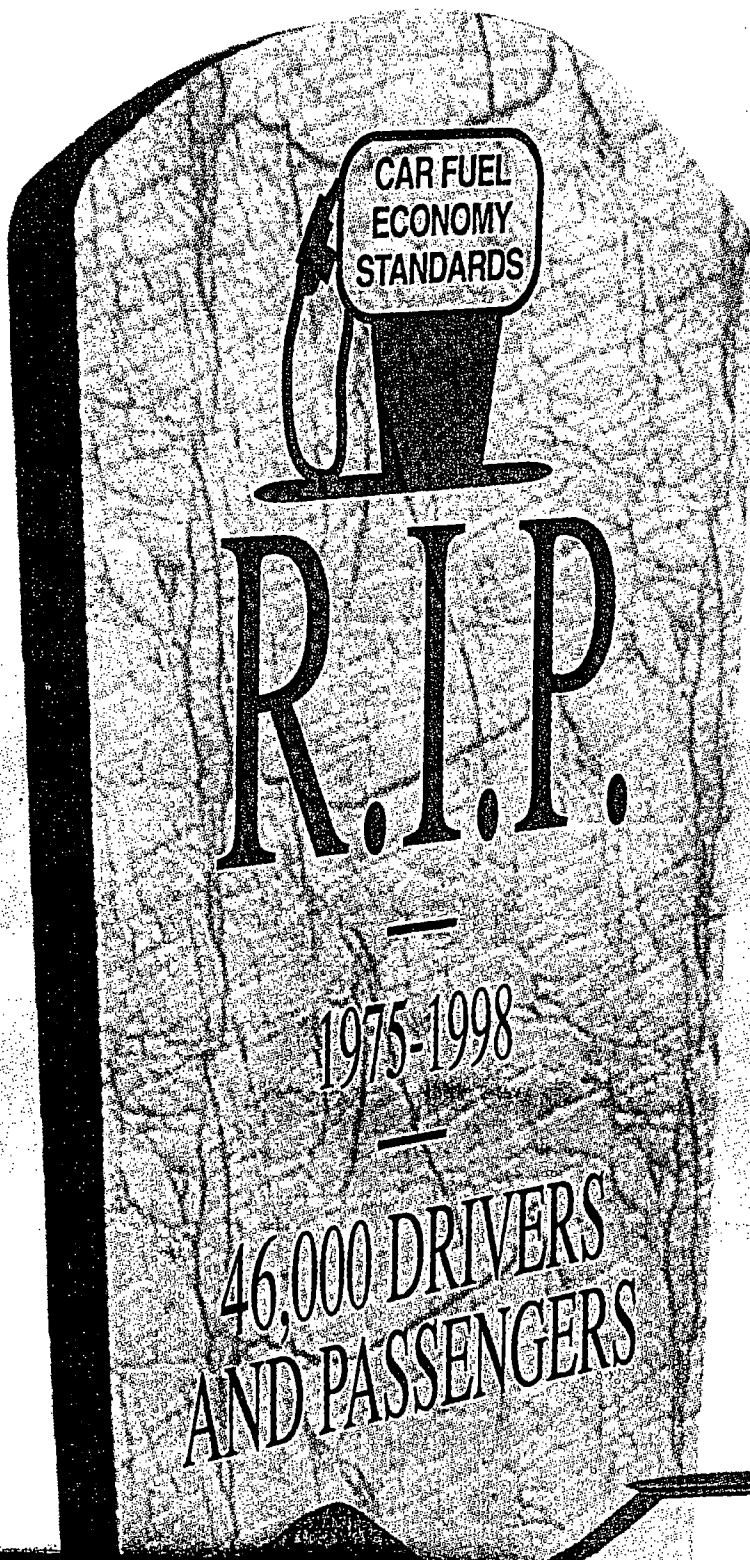
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Myths about small cars

Myths about small cars are strong. Here are two of the most common and why they are wrong:

1 Small cars have a high death rate because they get hit by those big sport-utility vehicles all over the roads.

Fact: In 1997, latest-available government data, 56% of small-car fatalities involved only small cars: 46% from single-car crashes, 10% from small cars running into each other. Just 1% of small-car deaths in 1997 involved collisions with midsize and large SUVs — 136 out of 12,144 total small-car deaths that year.

2 Small cars are necessary because they pollute less than big cars.

Fact: Federal regulations impose the same pollution restrictions on all cars, big and small. The limits are stated in "grams per mile" of acceptable pollution, not in grams per gallon of fuel burned. Thus, a large Lincoln Town Car with a V-8 engine can't legally pollute more in a mile, or 10 miles, or 1,000 miles, than a tiny Chevrolet Metro with a three-cylinder engine driven the same distance.

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- ▶ How the analysis was done, **2B**
- ▶ Designing a new Neon, **2B**
- ▶ The push toward small cars, **3B**
- ▶ Small sport utilities a worry, **3B**
- ▶ Making small cars safer, **3B**

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More broadly, in the 24 years since a landmark law to conserve fuel, big cars have shrunk to less-safe sizes and small cars have poured onto roads. As a result, 46,000 people have died in crashes they would have survived in bigger, heavier cars, according to USA TODAY's analysis of crash data since 1975, when the Energy Policy and Conservation Act was passed.

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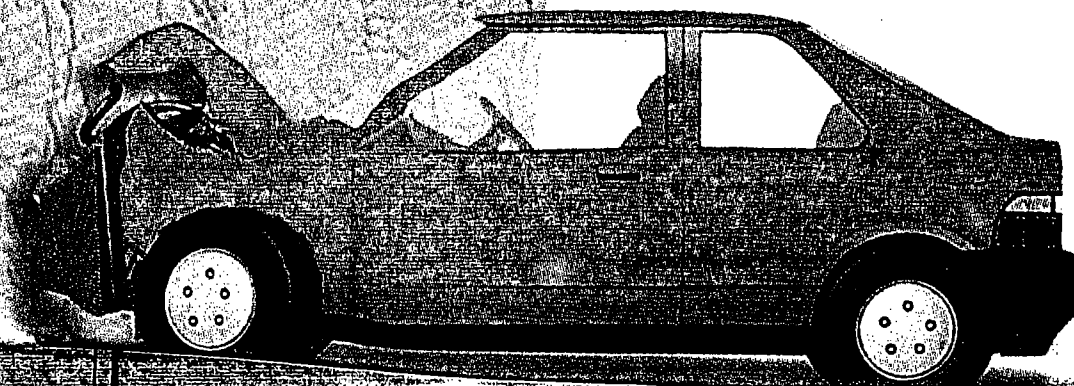
Little cars have big disadvantages in crashes. They have less space to absorb crash forces. The less the car absorbs, the more the people inside have to.

And small cars don't have the weight to protect themselves in crashes with other vehicles. When a small car and a larger one collide, the bigger car stops abruptly; that's bad enough. But the little one slams to a stop, then instantly and violently accelerates backward as the heavier car's momentum powers into it. People inside the lighter car experience body-smashing levels of force in two directions, first as their car stops moving

R.I.P.

1975-1998

46,000 DRIVERS AND PASSENGERS



those big sport-utility vehicles all over the roads.

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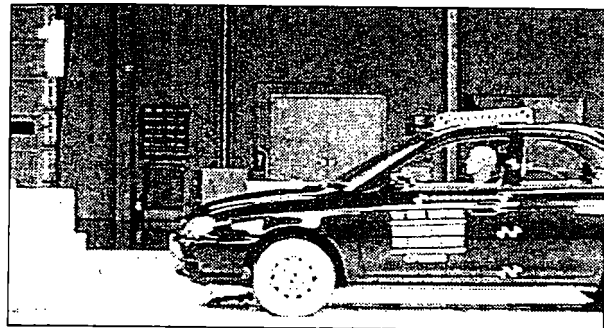
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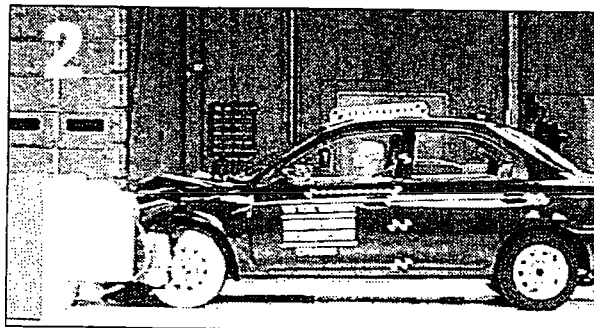
Please see SPECIAL REPORT next page ▶

DEATH BY THE GALLON

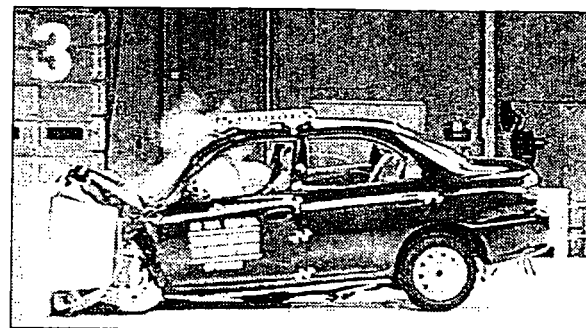
Crash test shows immediate effect when small car Kia Sephia hits barrier at 40 mph



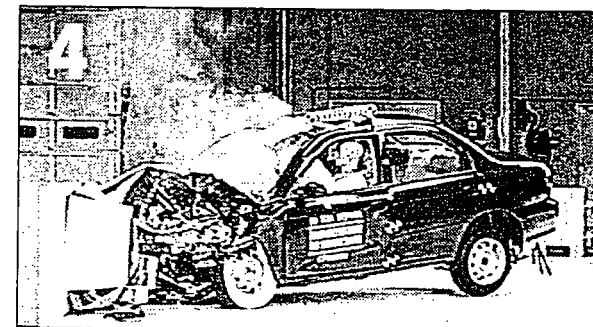
In these shots from videotape, Kia Sephia approaches a barrier at 40 mph during an Insurance Institute for Highway Safety test. The barrier is designed to make the crash equal to hitting an identical car at about 37 mph. The barrier is set to the driver's side to test safety belt, air bag.



Left front half of car smashes into barrier. Within a few thousandths of a second, the hood buckles from force of impact and the front fender is shoved into the tire. Dummy representing driver remains upright because crash force has not traveled into passenger compartment.



Momentum drives car harder into barrier. Windshield pillar, roof begin to buckle. Front tire crushes back into floor, pushing driver's legs up violently enough to cause serious injury. Air bag inflates. Rear of car rises as front abruptly stops. Time elapsed: about 0.05 of a second.



Insurance Institute for Highway Safety

Air bag smoke, powder pour out windshield. Dummy slams backward. Total time elapsed: 0.10-0.12 of a second. Kia meets government safety standards but scored the worst of small cars tested by IIHS. On better-scoring cars, floor, roof and windshield pillar don't bend as much.

Push for better mileage raises death toll

Continued from 1B

forward, then as it reverses. In the heavier car, bodies are subjected to less-destructive deceleration and no "bounce-back."

The regulations don't mandate small cars. But small, lightweight vehicles that can perform satisfactorily using low-power, fuel-efficient engines are the only affordable way automakers have found to meet the CAFE (pronounced ka-FE) standards.

Some automakers acknowledge the danger.

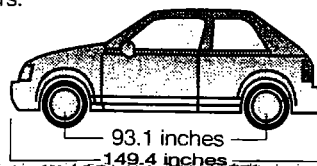
"A small car, even with the best engineering available — physics says a large car will win," says Jack Collins, Nissan's

What is a small car?

The federal Environmental Protection Agency (EPA) defines car sizes by interior space. But that leads to anomalies such as the EPA fuel-economy guide lumping Rolls Royce with Japanese mini-cars. Most common-sense classification systems try, instead, to portray cars by exterior size, usually measured by overall length or by wheelbase, the distance between the front and back wheels, or by a combination of length and wheelbase. Sometimes weight is a factor. For this report, small cars are those often known as subcompacts and mini-compacts. Such cars generally are 180 inches long or less; have wheelbases of 105 inches or less; weigh 2,600 pounds or less. Here are examples of various-sized small cars:

Mini-Chevy Metro coupe

Weight:
About 1,900
pounds



93.1 inches
149.4 inches

Beetle shines in rating of crashworthiness

The Insurance Institute for Highway Safety, a research organization supported by auto insurers, has found only one small car that "turned in a good overall performance" in IIHS 40-mile-per-hour crash tests — the 1998-99 Volkswagen New Beetle. IIHS named the car a "best pick," a designation not given any other small car.

Here, in order, is how IIHS rates other recent-model small cars it has tested for overall crashworthiness.



Average

'99 VW Jetta/Golf
'96-'99 Honda Civic
'98-'99 Toyota Corolla/Chevrolet Prizm
'98-'99 Hyundai Elantra
'97-'99 Ford Escort/Mercury Tracer
'95-'99 Saturn SL
'98-'99 Nissan Sentra
'99 Mazda Protégé

Marginal

in Detroit in March that it would be safer to get rid of the smallest vehicles, not the largest.

Drawing on crash research from eight countries, Lund and Chapline predicted that if all cars and trucks weighing less than 2,500 pounds were replaced by slightly larger ones weighing 2,500 to 2,600 pounds, there would be "nearly 3% fewer fatalities, or an estimated savings of more than 700 lives" a year. That's like trading a 1989 Honda Civic, which weighs 2,000 pounds, for a '99 Civic, at 2,500 pounds.

Conversely, the researchers conclude, eliminating the large

SPECIAL REPORT

U.S. marketing chief.

Tellingly, most small-car crash deaths involve only small cars — 56% in 1997, from the latest government data. They run into something else, such as a tree, or into one another.

In contrast, just 1% of small-car deaths — 136 people — occurred in crashes with midsize or big sport-utility vehicles in '97, according to statistics from the National Highway Traffic Safety Administration, the agency that enforces safety and fuel-efficiency rules. NHTSA does not routinely publish that information. It performed special data calculations at USA TODAY's request.

Champions of small cars like to point out that even when the SUV threat is unmasked, other big trucks remain a nemesis. NHTSA data shows, however, that while crashes with pickups, vans and commercial trucks accounted for 28% of small-car deaths in '97, such crashes also accounted for 36% of large-car deaths.

Others argue that small cars attract young, inexperienced drivers. There's some truth there, but not enough to explain small cars' out-of-proportion deaths. About 36% of small-car drivers involved in fatal crashes in 1997 were younger than 25; and 25% of the drivers of all vehicles involved in fatal wrecks were that age, according to NHTSA data.

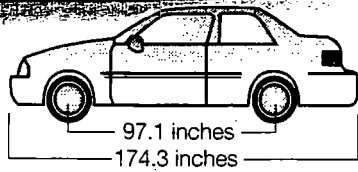
Gas shortage worries

U.S. motorists have flirted with small cars for years, attracted, in small numbers, to nimble handling, high fuel economy and low prices that make them the only new cars some people can afford.

"Small cars fit best into some consumers' pocketbooks and driveways," says Clarence Ditlow, head of the Center for Auto

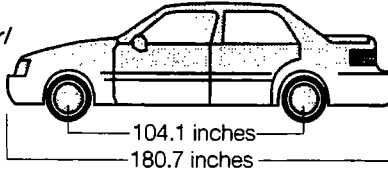
Standard
Toyota Corolla

Weight:
About 2,400
pounds



Large
Chevrolet Cavalier/
Pontiac Sunbird

Weight:
About 2,600
pounds



Source: Insurance Institute for Highway Safety.

By Alejandro Gonzalez, USA TODAY

Small cars will always be around."

But small cars have an erratic history in the USA. They made the mainstream only when the nation panicked over fuel shortages and high prices starting in 1973. The 1975 energy act and fuel efficiency standards were the government response to that panic.

Under current CAFE standards, the fuel economy of all new cars an automaker sells in the USA must average at least 27.5 mpg. New light trucks — pickups, vans and sport-utility vehicles — must average 20.7 mpg. Automakers who fall short are fined.

In return, "CAFE has an almost lethal effect on auto safety," says Rep. Joe Knollenberg, R-Mich., who sides with the anti-CAFE sentiments of his home-state auto industry. Each year, starting with fiscal 1996, he has successfully inserted language into spending authorization bills that prohibits using federal transportation money to tighten fuel standards.

Even if small cars were safe, there are reasons to wonder about fuel-economy rules:

► **Questionable results.** CAFE and its small cars have not reduced overall U.S. gasoline and diesel fuel consumption as hoped. A strong economy and growing population have increased consumption. The U.S. imports more oil now than when the standards were

efficient. The full-size Dodge Intrepid, with V-6 engine, automatic transmission, air conditioning and power accessories, hits the average 27.5 mpg.

"Improved fuel economy doesn't necessarily mean lighter, inherently less-safe vehicles," says Robert Shelton, associate administrator of NHTSA.

► **Cost.** Developing and marketing small cars siphons billions of dollars from the auto industry. Small cars don't cost automakers much less to design, develop and manufacture than bigger, more-profitable vehicles. But U.S. buyers won't pay much for small cars, often demanding rebates that wipe out the \$500 to \$1,000 profit.

Consumers pay, too. Though small cars cost less, they also depreciate faster, so are worth relatively less at trade-in time. And collision insurance is more expensive. State Farm, the biggest auto insurer, charges small-car owners 10% to 45% more than average for collision and damage coverage. Owners of big cars and SUVs get discounts up to 45%. "It's based on experience," spokesman Dave Hurst says.

CAFE has been "a bad mistake, one really bad mistake. It didn't meet any of the goals, and it distorted the hell out of the (new-car) market," says Jim Johnston, fellow at the American Enterprise Institute in Washington and retired General Motors vice president who

fuel economy generally is good, "the undesirable attributes of the CAFE system are significant," and CAFE deserves reconsideration.

A NHTSA study completed in 1995 notes: "During the past 18 years, the office of Technology Assessment of the United States Congress, the National Safety Council, the Brookings Institution, the Insurance Institute for Highway Safety, the General Motors Research Laboratories and the National Academy of Sciences all agreed that reductions in the size and weight of passenger cars pose a safety threat."

Yet there's no serious move to kill CAFE standards.

Automakers can't lobby too loudly for fear of branding their small cars unsafe, inviting negative publicity and lawsuits. And Congress doesn't want to offend certain factions by appearing too cavalier about fuel economy. Nor, understandably, does it want to acknowledge its law has been deadly.

"I'm concerned about those statistics about small cars, but I don't think we should blame that on the CAFE standards," says Rep. Henry Waxman, D-Calif., who supported CAFE and remains a proponent.

Pressure, in fact, is for tougher standards.

Thirty-one senators, mainly Democrats, signed a letter earlier this year urging President Clinton to back higher CAFE standards. And environmental lobbyists favor small cars as a way to inhibit global warming.

Although federal anti-pollution regulations require that big cars emit no more pollution per mile than small cars, envi-

via tougher CAFE rules.

Activists especially fume that trucks, though used like cars, have a more lenient CAFE requirement, resulting in more CO₂.

"People would be much safer in bigger cars. In fact, they'd be very safe in Ford Excursions," says Jim Motavalli, editor of *E: The Environmental Magazine*, referring to a large sport-utility vehicle Ford Motor plans to introduce in September. "But are we all supposed to drive around in tanks? You'd be creating that much more global-warming gas. I demonize sport utilities," says Motavalli, also a car enthusiast and author of the upcoming book *Forward Drive: The Race to Build the Car of the Future*.

Not all scientists agree that CO₂ causes global warming or that warming is occurring.

Seeking alternatives

Worldwide, the market is big enough to keep small cars in business, despite the meager U.S. small-car market of 2 mil-

Marginal

'00 Dodge/Plymouth Neon

Poor

'97-'99 Mitsubishi Mirage

'98-'99 Kia Sephia

Bug me: Volkswagen Beetle praised for performance.

More information on the IIHS tests is available via the Internet at www.hwysafety.org. Results of extensive U.S. government crash tests at a less-violent 35 mph are available (arranged by year and model) at www.nhtsa.dot.gov/ncap.

est cars, SUVs and pickups, and putting their occupants into the next-size-smaller cars, SUVs and pickups would kill about 300 more people a year.

Market skepticism

U.S. consumers, culturally prejudiced in favor of bigness, aren't generally interested in small cars these days:

Car-buying expert Bragg — author of *Car Buyer's and Leaser's Negotiating Bible* — says few customers even ask about small cars.

Small-car sales are half what they were in their mid-'80s heyday. Just 7% of new-vehicle shoppers say they'll consider a small car, according to a 1999 study by California-based auto industry consultant AutoPacific. That would cut small-car sales in half. Those who have small cars want out: 82% won't buy another.

To Bragg, the reasons are obvious: "People need a back seat that holds more than a six-pack and a pizza. And, there's the safety issue."

That hits home with Tennessee dad George Poe. He went car shopping with teenage daughter Bethanie recently and, at her insistence, came home with a 1999 Honda Civic.

"If it would have been entirely up to me, I'd have put her into a used Volvo or, thinking strictly as a parent, a Humvee."

How fatality statistics were calculated

USA TODAY's analysis of deaths resulting from federal fuel-economy standards uses data and estimates from the National Highway Traffic Safety Administration and the Insurance Institute for Highway Safety.

NHTSA is an arm of the Department of Transportation and is responsible for enforcing safety and fuel-economy regulations. IIHS is a private research organization supported by auto insurance companies.

A 1995 IIHS study looked at fatalities involving 1- and 2-year-old cars, from 1993 models back through the '75 models current at the

year since then, making the total about 46,000 through 1998.

IIHS President Brian O'Neill says the USA TODAY calculation is reasonable and the number of deaths could be even higher.

A 1989-91 NHTSA study analyzed car downsizing from 1975-85 as a result of fuel-economy regulations: Cars got 1,000 pounds lighter, wheelbases shrank 10 inches, widths decreased slightly.

NHTSA concluded: "Downsizing resulted in increases of nearly 2,000 fatalities and 20,000 serious or moderate injuries per year," or 200 deaths per 100,000 people.

driveaways, says Clarence Ditlow, head of the Center for Auto Safety, a consumer-activist organization in Washington.

Engineer and construction manager Kirk Sandvoss of Springfield, Ohio, who helped two family members shop for subcompacts recently, says that's all the car needed.

"We built three houses with a VW bug and a utility trailer. We made more trips to the lumber yard than a guy with a pickup truck would, but we got by.

have increased consumption. The U.S. imports more oil now than when the standards were imposed.

► **Irrelevance.** Emerging fuel technologies could make the original intent obsolete, not only by making it easier to recover oil from remote places, but also by converting plentiful fuels, such as natural gas, into clean-burning, competitively priced fuel.

And new technology is making bigger, safer cars more fuel

American Enterprise Institute in Washington and retired General Motors vice president who lobbied against the 1975 law.

Here to stay

CAFE is resilient, although concern over its effect on small-car safety is neither new nor narrow.

A 1992 report by the National Research Council, an arm of the National Academy of Sciences, says that while better

regulations require that big cars emit no more pollution per mile than small cars, environmental activists seize on this: Small engines typical of small cars burn less fuel, so they emit less carbon dioxide.

Carbon dioxide, or CO₂, is a naturally occurring gas that's not considered a pollutant by the Environmental Protection Agency, which regulates auto pollution.

But those worried about global warming say CO₂ is a culprit and should be regulated

A 1995 IIHS study looked at fatalities involving 1- and 2-year-old cars, from 1993 models back through the '75 models current at the birth of U.S. corporate average fuel economy (CAFE, pronounced ka-FE) standards.

IIHS found 10,656 more deaths in that 19-year period than if the mix of car sizes had not been skewed smaller by CAFE standards.

IIHS looked only at 1- and 2-year-old cars, but cars stay on the road a median 8.1 years. Divide that by two because each year in the IIHS study accounted for two model years, then multiply by IIHS' 10,656 total. Result: 43,157 additional deaths through 1995. Other IIHS data suggest close to 1,000 more deaths a

NHTSA concluded: "Downsizing resulted in increases of nearly 2,000 fatalities and 20,000 serious or moderate injuries per year," or 200 deaths per 100 pounds of weight reduction.

That would total about 22,000 deaths from 1975-85. But that's too low, NHTSA concluded in a follow-up study completed in 1995. A better estimate: 302 deaths per 100 pounds cut. That boosts the 1975-85 tally to 30,200. Since then, an additional 15,484 have died from downsizing, using NHTSA's formula and agency data on average car weight.

Total dead from downsizing: 45,684.

By James R. Healey



New Neon: No one wants a small car, says Joe Caddell, DaimlerChrysler's manager of small-car operations. So Neon got bigger for model year 2000.

Neon aims for biggest small car possible

AUBURN HILLS, Mich. — "Why even bother making a small car? You don't make much money on 'em. Nobody wants 'em."

That's not some small-car hater talking. It's Joe Caddell, manager of small-car operations at DaimlerChrysler. In a briefing prior to the car's launch, Caddell was summarizing challenges his team faced redesigning the Dodge and Plymouth Neon small car for the 2000 model year.

The '00 Neon is a study of how frustrating the U.S. small-car market can be. Automakers need them to meet government fuel-economy standards but often have trouble making money on them. DaimlerChrysler sells Neon in 60 other countries, helping offset what happens here.

Chrysler spent 31 months and \$1.3 billion on the original Neon, launched as a 1995 model. Caddell's '00 redo was more efficient but still 28 months and a hefty \$703 million.

Caddell says: "We asked everybody, 'What kind of small car do you want?' You know what the answer was? 'I don't want a small car.'"

So the '00 Neon grew almost 3 inches longer,

an inch taller and a bit wider inside than its predecessor. Wheelbase — distance between front and back wheels — was stretched an inch.

The changes gave about 2 inches more hip room, nearly an inch more shoulder room, a bit more headroom, an 11% increase in trunk space and a smoother ride, more like a big car's. Seats were raised half an inch so occupants would feel less vulnerable in traffic. Atop those changes, Neon was restyled to resemble full-size Dodge and Chrysler sedans.

The Neon was, in short, redesigned to be as big — and big feeling — as possible while still fitting its assembly line at Belvidere, Ill.

The grown-up Neon — starting at \$12,890 — hit dealerships in January. By the time the full marketing campaign bloomed in March, the huge, colorful, fold-out ads in national publications already were offering \$1,000 rebates.

That wipes out the profit — and Neon sales are down 7% this year despite the good deal.

By James R. Healey

Neon '95 vs. Neon '00

	1995 model	2000 model
Months to develop	31	28
Cost	\$1.3 billion	\$703 million
Dimensions		
Length (inches)	171.8	174.4
Width (inches)	67.4	67.4
Height (inches)	54.8	56.0
Weight (lbs.)	2,320	2,564
Wheelbase (inches)	104	105
Wheels/tires (inches)	13	14
Interior volume (cubic feet)	101.7	103.4
Trunk space (cubic feet)	11.8	13.1
Base price	\$8,975	\$12,890

Source: DaimlerChrysler, USA TODAY research

The history of small cars in America

Small cars had a hard time in the USA until shoved into the mainstream by 1970s fuel panics and federal law. Here are developments surrounding those events. Sources: Krause Publications' *Standard Catalogs* of imported and American cars, AutoPacific Small Car Consultancy, *Facts on File*, Daniel Yergin's *The Prize*, USA TODAY research.

Balance of petroleum power shifts . . .

Recounting the drama of 1973, it's easy to understand why the USA panicked over fuel shortages and prices. But the stage was set much earlier.

1948

USA becomes a net importer of oil but remains world's largest oil producer into the 1960s.

1950s

Soviet Union overtakes Venezuela as No. 2 oil producer. Soviet competition drives down oil prices, threatens wealth of Middle East and other traditional oil-producing regions.

1959

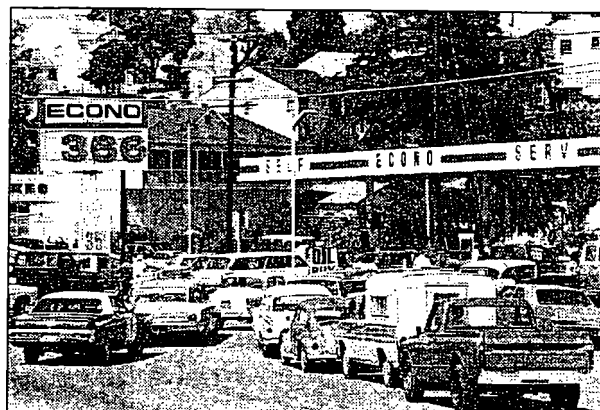
Petroleum Week correspondent Wanda Jablonski introduces Venezuela oil minister Juan Pablo Pérez Alfonzo and Saudi Arabia oil minister Abdullah Tariki at Arab Oil Congress in Cairo, Egypt. The ministers, discovering they are mutually furious over threats to their countries' income and influence, begin secret talks that lead to the formation of the Organization of Petroleum Exporting Countries, or OPEC.

1960

OPEC holds first meeting, settles on goal: keeping oil prices up.

1971

President Nixon imposes price controls on oil as anti-inflation move — locking maximum price of gasoline at peak-season high, heating oil at off-season low. Refiners quickly shift to more-profitable gasoline.



Gold rush: California drivers try to fill their tanks after station owners threatened to shut down over gas price restrictions.

diesel prices of 50 cents a gallon, up from 30 cents in the summer. Spreading the word via then-popular citizens' band (CB) radios, nonunion truckers paralyze traffic on Interstate 84 in Connecticut, I-80 in Pennsylvania, I-40 between Little Rock and Memphis, the Indiana Toll Road and along some major roads in West Virginia, Illinois, Iowa, Michigan, Nebraska, South Dakota and Nevada.

National Guardsmen and riot troops are called out. Transportation Secretary Claude Brinegar implores truckers to end the disruption.

Public is outraged to learn that U.S. oil companies continue exporting oil, despite U.S. shortages. Oil firms can get more money selling overseas because OPEC is setting high oil prices for countries allowed to buy, and price controls are in place in the USA. Some U.S. oil even goes to OPEC members.

Energy Director William Simon bans outdoor holiday lighting to conserve fuel needed to generate electricity. Schools in cold-weather states stretch winter breaks up to six weeks to save fuel.

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1974

Feds order year-round daylight savings time, hoping time shift cuts use of oil. Feds order states to impose 55 mph speed limit or lose road money.

Embargo leaks. Arab nations needing cash to pay for So-

... as the small car is born

The modern history of small cars in the USA begins just after World War II. The pace of developments accelerated after the government reacted to 1970s fuel shortages.

1949

Two Volkswagen Beetles, officially known as Type I, are sold in the USA.

1954

U.S. carmakers Nash and Hudson merge to form American Motors Corp., which begins selling the Metropolitan, considered first U.S. subcompact. AMC's emphasis on small cars, despite U.S. preference for big cars, made the company vulnerable.

1957

Toyota enters U.S. market with small sedan called Toyopet, renamed Crown in '59. But even Toyota can't popularize small cars in '50s. It quits U.S. car market temporarily, returning with Tiara sedan in '64, Corona sedan in '65.

1959

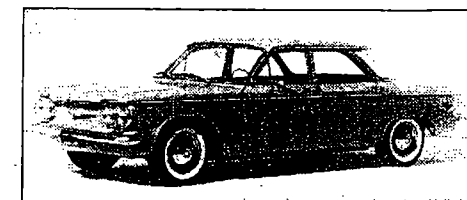
Ford introduces 1960 Falcon, 3 feet shorter than regular Fords. Chevrolet introduces 1960 Corvair, a radical design with an air-cooled engine in the rear, like VW Beetle.

1960

Chrysler introduces Plymouth Valiant and Dodge Dart, conventional small cars, to keep up with Falcon and Corvair. Even GM's big-car Buick division feels small-car fever and introduces '61 Special.

1964

Ford introduces the Mustang as a 1964½ model. That first Mustang is a Falcon with a sporty body and interior, and optional V-8 engines. An instant success, it demonstrates that sporty small cars could thrive, even if other small cars couldn't.



1960 Corvair: Has air-cooled engine in rear.

Shift to more pro-

1973
Homes, schools, factories in Midwest, West shut during winter for lack of heating oil, some of which sits undelivered for lack of diesel fuel for delivery trucks.

Environmental Protection Agency Administrator William Ruckelshaus tries to shame motorists into conservation, claiming that heavy, luxurious vehicles burn 20% more gas than necessary. Cutting 500 pounds would increase fuel economy 14%, he says.

Oct. 17, OPEC halts oil sales to USA after U.S. backs Israel in the 1973 Arab-Israeli war. OPEC raises prices to other countries. Gas, diesel shortages occur. Prices zoom.

In November, the Pentagon commandeers 19.6 million barrels of petroleum products from 22 reluctant oil companies that say there isn't enough to go around even before the military seizure. In December, the Pentagon warns that petroleum shortages could compromise national security.

Dec. 4, independent truckers stage slowdown to protest

Embargo leaves Arab nations needing cash to pay for Soviet weapons turn a blind eye to oil shipments that make neutral-country stopovers, then go to the USA.

Service stations charge \$1 a gallon for gasoline, three times its pre-embargo price.

In March, OPEC calls off the embargo. Price of crude oil has risen fourfold, to nearly \$10 for a 42-gallon barrel, ensuring high fuel prices after the embargo.

1975

Congress passes the Energy Policy and Conservation Act of 1975, setting corporate average fuel economy (CAFE) standards to prevent future shortages.

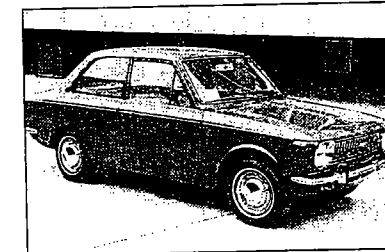
1979

U.S.-hater Ayatollah Ruhollah Khomeini takes over as head of Iran after the shah, a U.S. ally, is overthrown in revolution. Khomeini halts oil sales to USA, triggering second round of shortages.

Instant success, it demonstrates that sporty small cars small cars couldn't.

1968

Toyota begins selling the 1969 Corolla small sedan in the USA, finally hitting on the right combination of size, price and features to attract free-thinking younger buyers who ensure the company's future in the USA.



Toyota

1969 Corolla: Toyota is a hit in USA.

1969

Honda, known only for motorcycles, enters the U.S. car market offering the 600 sedan, powered by a two-cylinder, 0.6-liter, air-cooled engine rated 36 horsepower.

1973

General Motors shuts 16 of 24 North American plants a week in December to trim inventories of unsold large and midsize cars, GM's first production cut since 1970. Ford

Motor says it will convert some big-car plants to small-car production, and cuts back at 13 plants because of a shortage of parts and a decline in big-car sales. Chrysler announces plans to close six of its seven North American plants three days the first week of 1974, and convert the seventh plant to small-car production.

Accidentally perfect in its timing, Honda introduces the Civic small car in April, during fuel shortages, replacing the tiny, underpowered 600 model.

1980

Detroit begins to decode the small-car formula. Ford introduces Escort and twin Mercury Lynx as 1981 small, front-wheel-drive models, ambitiously calling them "world cars." Ford says that designation means they are good enough to be sold the world over.

1981

Chevrolet introduces the front-wheel-drive Cavalier small car in March, as an early '82 model, and keeps the rear-drive Chevette, introduced in 1975, in production.

1985

Unique joint venture between GM and Toyota called New United Motor Manufacturing results in the June launch of '86 Chevrolet Nova, a near-clone of the Toyota Corolla. Nova is Chevy's third small car, joining Cavalier and the now-antiquated Chevette.

1990

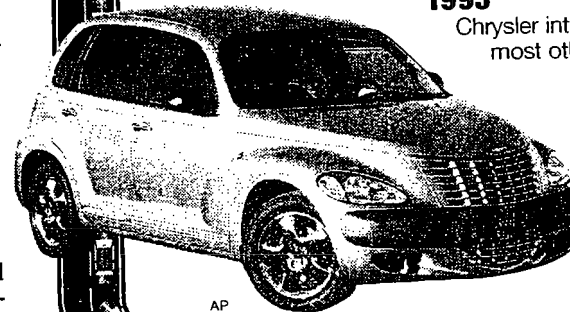
GM launches Saturn small cars, which become a hit because dealers don't haggle on price and treat customers royally. As with the original Mustang, there's a lesson: Small cars can do reasonably well if their buyers are treated like luxury-car buyers.

1993

Chrysler introduces Neon, with front wheels about 6 inches farther from rear wheels than on most other small cars, providing extraordinary room inside.

1999

Ford introduces Focus, European-designed replacement for Escort. Focus costs \$1,000 less to build, finally giving Ford what it hopes will be a consistently profitable small car. DaimlerChrysler says its PT Cruiser small car (left) will be classed a truck to help meet truck CAFE standard. Cruiser is based on Neon, but removable back seats and flat-load floor allow the car to be a truck under government rules. United Auto Workers, GM officials discuss but can't agree on plan for GM to quit losing money on small cars it builds at Lordstown, Ohio.



AP

Small trucks pose even more serious problems

Higher center of gravity leads to deadly rollovers

Drivers have been switching from cars to sport-utility vehicles and other trucks in big numbers, partly to escape size and power restrictions on cars from corporate average fuel economy standards, and partly because bigger vehicles are safer in most crashes.

The switch has been profitable for automakers, who earn more on trucks than on cars. But it's becoming thorny, too. The most-popular trucks are bigger, heavier models that use more fuel, making it increasingly difficult to meet CAFE standards.

The antidote is familiar: Force-feed small, fuel-efficient trucks into the market to meet the overall fuel economy average just as manufacturers

have done with cars. The results are more funereal than with small cars, however.

Small trucks share small cars' size and weight deficiencies that make them vulnerable in crashes. And many have another problem: They are designed for better ground clearance, so they sit higher. That makes them more prone to deadly rollovers.

Small SUVs, the size of Chevrolet Tracker, Honda CR-V and Toyota RAV4, are four to six times more likely to kill their occupants in a rollover than small cars are. Small SUVs also are nearly five times as likely to kill occupants in a rollover, as are midsize SUVs, such as Chevy Blazer, Ford Explorer and Jeep Grand Cherokee. Small pickups have a similar, though less extreme, problem.

Overall, crashes involving small SUVs kill their occupants twice the average rate of all vehicles, according to the Insur-

ance Institute for Highway Safety: 300 deaths per 1 million registered small SUVs, vs. an average 152 deaths per million. Small pickups kill at a rate of 211 per million. Small cars kill 189 people per million; the smallest, mini-cars, kill 217.

Light trucks — vans, pickups and sport-utility vehicles — are about 49% of new-vehicle sales. SUVs probably will overtake pickups as best-selling trucks this year, partly driven by an increase in small SUVs.

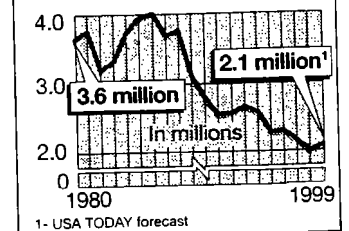
Two examples: Honda is selling 50% more CR-Vs this year than last; Kia has doubled sales of its Sportage SUV.

And other automakers will push more such vehicles into showrooms soon. Ford Motor and affiliate Mazda will launch small SUVs in about a year, while General Motors is accelerating development of a similar small SUV.

By James R. Healey

Small-car sales

Small-car sales peaked at 4 million in 1986, the year car and light-truck sales hit a record 16.1 million. Since then, small cars have lost favor fast. Some analysts predict record vehicle sales this year, which could help boost small-car sales.



Source: Autodata By Quin Tian, USA TODAY

Carmakers deou around CAFE rules

Corporate average fuel economy — referred to as CAFE (pronounced ka-FE) — is the mileage the federal government requires each automaker to attain when the fuel economies of all the vehicles it sells in a model year are averaged.

The standard for cars is 27.5 miles per gallon in combined city and highway driving. The standard for light trucks — pickups, vans and sport-utility vehicles — is 20.7 mpg.

An automaker could achieve car CAFE selling 1 million cars averaging 30 mpg and another 1 million averaging 25 mpg. If an automaker sold 1 million at 20 mpg, it would have to sell another 1 million at a daunting 35 mpg to average 27.5.

There's a fine for missing the standard: \$5.50 for each 0.1 mpg short of the CAFE standard, multiplied by the number of vehicles sold. Sell 1 million cars with an average of 27 mpg instead of 27.5, the fine would be \$27.5 million.

Some foreign automakers, unlikely to meet the standard

because they mainly sell bigger vehicles, pay the fines and call it a cost of doing business. U.S. automakers don't, even if it would be cheaper than selling fuel-efficient vehicles at a loss to meet the standards.

U.S. makers are too afraid of being prosecuted for breaking the federal law under which CAFE standards are imposed. They are afraid of lawsuits by shareholders irate at corporate decisions that would result in law breaking and fine paying.

Even when the standards aren't met, there are ways to avoid paying:

► **Previous credits.** If an automaker exceeds CAFE one year, the excess can be applied the next three years to help balance worse averages.

► **Future credits.** An automaker can forecast that sales up to three years in the future will result in exceeding CAFE standards. That projected excess can be used as a credit now. If an automaker doesn't hit its forecast, it pays a fine.

► **Model years.** An auto-

Fuel fines a cost of business

Some auto companies don't make any models fuel-efficient enough to satisfy federal regulations. Those makers routinely pay fines to the U.S. government for missing the mark, and chalk it up as the cost of doing business. The first fine for falling short of the Corporate Average Fuel Economy standards was paid by Jaguar in 1985. Since then, companies have paid a total \$451 million in fines. Companies that paid more than \$1 million in fines through 1998:

Company	CAFE fines
Mercedes-Benz	\$197,105,570
BMW	\$114,268,519
Volvo	\$56,421,280
Jaguar	\$40,069,650
Porsche	\$16,678,615
Land Rover	\$13,222,747
Fiat/Ferrari	\$5,746,805
Sterling	\$4,318,780
Peugeot	\$2,805,205

Source: National Highway Traffic Safety Administration.

maker can juggle model-year designations to help meet CAFE. General Motors, for instance, declared that the 1998 model year would end January 1998 for its Chevrolet Tahoe, GMC Yukon and Chevy/GMC Suburban full-size sport utilities, just four months after the '98 model year began. Starting February 1998, those vehicles were designated '99 models, though the vehicles were unchanged. That's legal.

The shortened '98 model year helped GM two ways: It reduced the number of less-efficient '98 models sold, so their lower fuel-economy averages wouldn't weigh as heavily in an overall calculation. And it pushed sales of some less-efficient, old-design SUVs into the '99 model year where they're averaged with more fuel-efficient new pickups.

By James R. Healey

Could new crash tests?

Some experts advocate tougher standards for small cars

Small cars have benefited from dramatic safety improvements, as have other vehicles, and the USA's highway death rate in both 1997 and '98 was a historic low: 1.6 deaths per 100 million miles driven.

Because better brakes, tires, safety belts, interiors and side-impact protection are shared by all vehicles, crash safety still focuses on size. Improving just small-car safety involves troubling tradeoffs.

"We're looking at enhancing small-car safety, but most of our regulations improve safety across the board," says Robert Shelton, associate administrator in charge of safety standards at the National Highway Traffic Safety Administration. NHTSA, a unit of the federal Department of Transportation, enforces safety and fuel-economy standards.

"We don't want to improve small-car safety at the expense of others," he says.

Clarence Ditlow, head of the consumer activist group Center for Auto Safety, proposes

changing the government crash test.

Instead of driving cars head-on into fixed barriers, he says, how about slamming heavy barriers into cars, better matching real crashes?

Shelton sees promise. If the moving barrier weighed more than a small car, for instance, but no more than a midsize or large car, then "a small car would have to do more to improve its crashworthiness than larger cars would, so that benefits small-car safety."

Tradeoff: It could water down crashworthiness of vehicles heavier than the barrier.

NHTSA's current test is equivalent to crashing the test vehicle head-on into an identical vehicle. Crashing a 4,000-pound car into a 4,000-pound barrier is a tougher test than slamming a 3,000-pound barrier into a 4,000-pound car.

A barrier heavy enough to tax the weightiest vehicles would be so heavy, small cars never could pass. An array of different weight barriers "is

probably getting too complicated," Shelton says.

Others have suggested external air bags in, say, the bumpers. Sensors would inflate bags an instant before a crash to help cushion the impact.

"It's not so crazy," says Brian O'Neill, head of the Insurance Institute for Highway Safety, a private research organization supported by auto insurers.

Technology would be similar to what's already used, he says.

Tradeoffs: More bags add weight, hurting fuel economy, and add cost, driving off price-sensitive small-car buyers.

Some suggest a law requiring the best safety features be reserved for small cars.

Tradeoff: Newest features usually cost the most. Small cars lack the profit margins to absorb costly gadgets.

And such exclusivity would enrage luxury-car buyers, who expect the best and newest everything for the premium prices they pay.

By James R. Healey

Saudi Arabia oil minister Abdullah bin Abdul Aziz at Arab Oil Congress in Cairo, Egypt. The ministers, discovering they are mutually furious over threats to their countries' income and influence, begin secret talks that lead to the formation of the Organization of Petroleum Exporting Countries, or OPEC.

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Ford introduces the Mustang as a 1964½ model. That first Mustang is a Falcon with a sporty body and in-



1960 Corvair coupe, modified for racing.



INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE & AGRICULTURAL IMPLEMENT WORKERS OF AMERICA—UAW

STEPHEN P. YOKICH, President

RUBEN BURKS, Secretary-Treasurer

VICE PRESIDENTS

ELIZABETH BUNN • RON GETTELFINGER • BOB KING • JACK LASKOWSKI • RICHARD SHOEMAKER

IN REPLY REFER TO

**1757 N STREET, N.W.
WASHINGTON, D.C. 20036
TELEPHONE: (202) 828-8500
FAX (202) 293-3487**

June 30, 1999

Dear Senator:

When the Senate considers the FY 2000 Transportation Appropriations bill, we understand that amendments may be offered to eliminate or modify the current moratorium on increases in fuel economy standards for autos and trucks (commonly known as CAFE, the Corporate Average Fuel Economy standards). The UAW strongly opposes such amendments and urges you to vote against them.

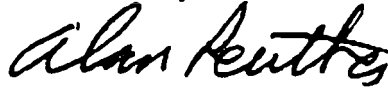
The UAW supported the CAFE standards when they were originally enacted. We believe these standards have helped to improve the fuel economy achieved by motor vehicles (which has doubled since 1974). This improvement in fuel economy has saved money for consumers and reduced oil consumption by our nation.

However, for a number of reasons the UAW believes it would be unwise to increase the fuel economy standards at this time. First, any increase in the CAFE standard for sport utility vehicles (SUVs) and light trucks would have a disproportionately negative impact on the Big Three automakers because their fleets contain a much higher percentage of these vehicles than other manufacturers. Second, any increases in CAFE standards for cars or trucks would also discriminate against full line producers like the Big Three automakers because their fleets contain a higher percentage of full size automobiles and larger SUVs and light trucks. The current fuel economy standards are based on a flat miles per gallon number, rather than a percentage increase formula, and are therefore more difficult to achieve for full line producers. Taking these two factors together, the net result is that further increases in CAFE could lead to the loss of thousands of jobs at automotive plants across this country that are associated with the production of SUVs, light trucks and full size automobiles.

The UAW believes that additional gains in fuel economy can and should be achieved through the cooperative research and development programs currently being undertaken by the U.S. government and the Big Three automakers in the "Partnership for a New Generation of Vehicles". This approach can help to produce the breakthrough technologies that will achieve significant advances in fuel economy, without the adverse jobs impact that could be created by further increases in CAFE standards.

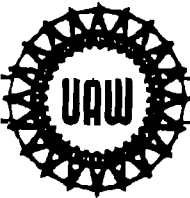
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Sincerely,

A handwritten signature in cursive script, appearing to read "Alan Reuther".

Alan Reuther
Legislative Director

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opelu494
C4100



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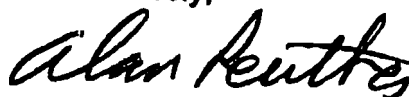
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Alan Reuther
Legislative Director

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THE WHITE HOUSE

WASHINGTON

June 16, 1999

MEMORANDUM TO JOHN PODESTA

FROM: GEORGE FRAMPTON
ROGER BALLENTINE
LINDA LANCE

RE: CORPORATE AVERAGE FUEL ECONOMY (CAFE) RIDER

Background on Current Law and Rider

The CAFE law applies to all manufacturers selling in the U.S., and sets standards for the average fuel economy of a manufacturer's fleet. The statutory term of art for vehicles covered is "automobiles," but the definition encompasses cars, pickup trucks, minivans and sport utility vehicles (SUVs) potentially up to 10,000 pounds (DOT regulations limit its application to vehicles up to 8500 pounds). During the time the standards have been in effect, fuel economy of the car fleet has doubled with no loss in interior volume of performance, and improvements continued even after gasoline prices began to fall. This has saved an estimated 2.5 million barrels of oil per day, and has saved consumers at least \$40 billion in gasoline costs.

The statute sets separate requirements for cars and "light trucks", which includes pickups, SUVs and minivans. It established numerical standards for cars leveling off at 27.5 miles per gallon in 1985 and after, although the Secretary of DOT has the authority to raise or lower that standard based on consideration of a number of factors. For "light trucks" the statute does not prescribe a numerical standard, but requires that DOT set the standard at least 18 months prior to the beginning of each model year.

If manufacturers exceed the fleet average in a particular year they can carry forward or carry back credits they expect to earn for doing better than the standard in another year. However, if they exceed the standard and run out of credits they pay fines calculated on the number of vehicles sold and the miles per gallon by which they exceed the standard.

During the Reagan years the car standard was lowered to 26 mpg, and the U.S. manufacturers built up credits. The car standard returned to 27.5 in the Bush years, and has remained flat ever since. The truck standard (this category is now 50% of new vehicle sales) was raised during the Bush Administration from 20.0 mpg to 20.5. In the first three years of the Clinton Administration the standards were raised from 20.5 to 20.7. The rider has precluded further consideration of changing these standards.

This year's rider (which has been added to the House but not the Senate version of the DOT Appropriations bill) is identical to previous riders. It precludes expenditure of DOT funds to "prepare, propose, or promulgate any regulations" setting CAFÉ standards for vehicles that are different from existing standards.

Options

1. Do Not Veto; Same Response as Previous Years

As in previous years, particularly if rider is on a stand-alone Transportation appropriations bill, we would speak out against the rider but reluctantly sign bill.

Pros: Avoid possible over-ride; do not anger industry and labor; avoid tough vote for vulnerable Members of Congress.

Cons: Greatly anger environmental community; extend period during which we take no action in face of decreasing efficiency of vehicle fleet; face domestic and international criticism for failing to take action in one of two largest carbon-emitting sectors.

2. Fight Rider; If Successful, Use Leverage of Possible Regs to Reach Agreement with Industry.

Regardless of where the rider appears, we would make a strong stand against the rider and in favor of closing the "light truck loophole". We would point out that SUVs are passenger cars and that Americans expect them to perform as efficiently as passenger cars. Our message would have to be strong and convincing, delivered by Principals and echoed by NGO's, to give cover and stomach to Members. If we were successful in eliminating the rider, we would indicate an intention to engage the rulemaking process on CAFÉ, but also that we are interested in exploring a "third way" solution that would involve either voluntary or other administrative action to achieve improved efficiency. Ideally, we would have some closure with the industry and the enviros in advance.

Pros: We would be making a strong environmental commitment and backing up our long-standing positions, arguing that Americans want efficient vehicles and that over the past [5] years, the fuel efficiency of the fleet has gone down, despite gains in technology and a growing public concern with clean air and climate change. We would also deliver a strong, overall message against anti-environmental riders and demonstrate strong will in support of this position. In addition, if we were successful in delivering a third-way result (not just a process), we would head off any Republican candidate argument in *favor* of cleaner, more efficient vehicles, but *against* old-style Democratic, top-down, Washington-mandate solution that pits the environment against business and jobs.

Cons: Will be hard to get enviros and industry on same page. We still would put some Members in position for a tough vote.

3. Fight Rider; Begin Rulemaking Process Whether or Not We Reach an Agreement.

Again, we would make a strong argument in favor of the policy and back that up if we won with the initiation of the rulemaking process on some reasonable timetable. There would be no expectation of finalizing any rule during this Administration.

Pros: Enormous support from environmental community and some key international recognition of strong domestic actions on carbon. Perhaps we would reap some pundit credit for courage and principle. Obviously, we could remain open to a deal if presented. While industry would be very upset, it is difficult for them to argue on the merits of closing the loophole, since public supports efficiency. There may also be a range of options on how much we would propose raising the standard that could mitigate opposition/difficulty on Hill.

Cons: Strong opposition from industry and perhaps labor. Industry will put increased CAFÉ standard in terms of jobs. Tough vote for certain Members. While Republican candidates could oppose increasing efficiency altogether (a debate we could win), they could support increased efficiency, but oppose bureaucratic, heavy-handed approach.

4. Don't Go To War on Rider Yet; Start Immediate Dialog with Industry.

We would keep our "strongly oppose" language on the bill in the immediate term, but engage industry at high level (COS) with message that we are very concerned about this issue, and all out opposition to rider and attack on industry's failure on efficiency improvements are real possibilities for us. We would immediately explore the possibility of a voluntary agreement or alternative to CAFE. If we fail, we could either go to option 1 or option 3. We would have some leverage. Our Tier II rules are pending (which impact on producing efficient vehicles), industry would get good green public relations hit with a deal and they would avoid a high profile environmental fight, and they might fear our striking a deal with foreign manufacturers.

Pros: Could avoid tough vote for Members; third way solution; great deliverable.

Cons: There may be no viable option other than CAFÉ and little hope for a voluntary agreement.

Cc: Ron Klain
Larry Stein
David Beier
Elgie Holstein
Martha Foley
Morley Winograd
Lisa Kountoupes

Tier II



Mindy E. Myers

04/30/99 04:07:22 PM

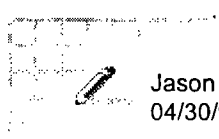
Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP, Lisa M. Kountoupes/WHO/EOP@EOP

cc:

Subject: Embargoed Radio Address Paper

----- Forwarded by Mindy E. Myers/WHO/EOP on 04/30/99 04:07 PM -----



Jason H. Schechter

04/30/99 04:04:39 PM

Record Type: Record

To: See the distribution list at the bottom of this message

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Subject: Embargoed Radio Address Paper

EMBARGOED UNTIL 10:06AM EST, SATURDAY, MAY 1, 1999

**PRESIDENT CLINTON AND VICE PRESIDENT GORE:
CLEANER AIR FOR THE NEW CENTURY**

May 1, 1999

Today, in his weekly radio address, President Clinton proposes major new steps to improve air quality and protect public health by dramatically reducing pollution from cars, sport utility vehicles (SUVs) and light-duty trucks. The proposed rules would strengthen tailpipe standards for cars, SUVs and other vehicles, and reduce sulfur in gasoline, beginning in 2004. Under this plan, manufacturers would produce vehicles that are 77 to 95 percent cleaner than those rolling off the assembly lines today, while preserving consumers' ability to drive the vehicles of their choice.

Cleaner Skies and Healthier Air. Americans have made tremendous progress in improving air quality. Since the Clean Air Act was enacted in 1970, air pollution has been cut more than 30 percent even as our population and economy have continued to grow. Since 1993, the number of over 43 million Americans' communities met federal air quality standards. In 1997, the Administration adopted the toughest new health standards in a generation for smog and soot, an action that will protect the health of 125 million Americans, including 35 million children. This past Earth Day, Vice President Gore announced a new measure to restore pristine skies over our national parks and wilderness areas.

Doing Better in the Decades Ahead. In a study released last July, EPA reported that additional emission reductions will be necessary to maintain the nation's progress in achieving cleaner air, and could be achieved cost-effectively by coupling tighter tailpipe standards with cleaner fuels. The proposed rules, to be phased in

between 2004 and 2009, would:

- For the first time ever, apply a uniform tailpipe standard to passenger cars, SUVs and other light-duty trucks. The new standard would result in cars that are 77% cleaner - and SUVs and other light-duty trucks 95% cleaner - than today's models.
- Reduce average sulfur levels in gasoline from more than 300 to 30 parts per million. These reductions are needed because sulfur fouls catalytic converters, the devices that remove pollutants from auto exhaust.

The number of miles Americans drive each year rose from 1 trillion in 1970 to 2.5 trillion in 1997 and is expected to continue to rise at a rate of 2-3% a year. Sales of higher-polluting SUVs, minivans and other light-duty trucks, now 50 percent of the market, are expected to keep growing. The proposed measures, when fully implemented, would reduce vehicle emissions at a level equivalent to removing 166 million cars from the road. EPA calculates that the proposals would prevent as many as 2,400 deaths, 3,900 cases of chronic bronchitis, and tens of thousands respiratory problems a year.

Flexible and Cost-Effective. The proposed rules reflect extensive consultation by EPA with the auto and fuel industries, states and local officials, environmental groups, and public health communities. They provide for flexible implementation for the auto and oil industry to meet the new standards cost-effectively. For instance: 1) by allowing auto companies to average across the fleet as they phase-in the new requirements and; 2) allowing for a market based trading and banking system for both industries to reward those who lead the way in reducing pollution. The projected costs of meeting the standard - about \$100 for cars, \$200 for light-duty trucks, and between one and two cents per gallon of gas - would be outweighed by the projected public health benefits. EPA is inviting public input on the proposed rules, and will carefully consider all comments before the rules are finalized. The proposed rules can be found on the Internet at www.epa.gov/oms/tr2home.htm.

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EMBARGOED UNTIL 10:06AM EST, SATURDAY, MAY 1, 1999

CLEAN AIR: CLEANER CARS AND CLEANER GASOLINE

Today, President Clinton is announcing the next step in providing Americans with cleaner air, cleaner cars, and cleaner gasoline. The proposed new standards are specifically designed to reduce harmful air pollution, like smog-causing nitrogen oxides, with flexible and cost-effective ways that give Americans the cleaner air and the consumer choices they want.

Cleaner Cars. EPA is proposing to set tougher tailpipe emissions standards beginning in 2004 -- the first time both cars and light-duty trucks are subject to the same national pollution control system. The proposed new standard is .07 grams per mile (gpm) for nitrogen oxides, a 77 percent reduction for cars and an 95 percent reduction for trucks and SUVs. Vehicles under 6000 pounds would be phased in between 2004 to 2007, and vehicles weighing between 6000 and 8500 would be phased in through 2009. The current national standards range from .6 gpm for cars to 1.53 gpm for the heaviest SUVs and vans. Estimated cost would be an average of \$100 for cars and \$200 for SUVs per vehicle.

Cleaner Gasoline. EPA is proposing for the first time that tailpipe emissions and sulfur in gasoline are addressed together as a single system to achieve cleaner air efficiently and cost effectively. Sulfur in gasoline impedes the effectiveness of catalytic converters -- the devices that reduce pollution from tail pipes. The

proposal would require the nation's refiners to meet an average sulfur level of 30 parts per million (ppm) by 2004, down from the current average of more than 300 ppm. Small refiners -- those with 1,500 employees or less -- would have an additional 4 years to comply, with the opportunity of an extension for those that can demonstrate a severe economic hardship. EPA estimates the cost would be between one and two cents per gallon, or about \$12 to \$24 dollars per year per car.

Maximum Flexibility. To ensure that the car and oil industries meet the new standards cost-effectively, the proposal includes several flexible mechanisms:

- **Averaging:** Automakers and refiners can meet the proposed standards by averaging to allow maximum cost-effectiveness. For example, automakers could manufacture a range of vehicles that emit 0.00 grams per mile (gpm) to 0.2 gpm of nitrogen oxides as long as the average amount of the entire fleet remains at 0.07 gpm. The nation's refiners and importers of gasoline would have the flexibility to manufacture gasoline within a range of sulfur levels as long as the annual average is 30 parts per million (ppm). The maximum amount of sulfur in gasoline, for purposes of averaging, could not exceed 80 ppm after 2005.
- **Phase-In:** Beginning in 2004, 25 percent of lighter vehicles would be required to meet the new 0.07 gpm standard each year until the phase-in is completed in 2007. Larger vehicles, from 6000 to 8500 pounds, would also be phased in to meet the new standard beginning in 2004 until completed in 2009. Small refiners would have until 2008 to comply with the proposed sulfur standards. Small refiners that demonstrate a severe economic hardship could apply for an additional extension of up to two years.
- **Credit for Early Action:** As early as 2001, auto manufacturers could obtain credits for later use for vehicles produced at or below the 0.07 gpm standard. Refiners and importers of gasoline also would be allowed to generate, bank, and trade sulfur credits that they could either use in a later year or sell to another refiner. This proposal allows companies to gain credits for early pollution reductions. The result of these market mechanisms is reduced costs to industry and cleaner air faster for the American people.

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Message Sent To: _____



Mindy E. Myers

04/30/99 04:53:17 PM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP, Lisa M. Kountoupes/WHO/EOP@EOP

cc:

Subject: EMBARGOED transcript 4/30/99 Press briefing on environment

----- Forwarded by Mindy E. Myers/WHO/EOP on 04/30/99 04:53 PM -----



OLCOTT_E@A1

04/30/99 04:46:00 PM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:

Subject: EMBARGOED transcript 4/30/99 Press briefing on environment

THE WHITE HOUSE

Office of the Press Secretary

Embargoed For Release

Until 10:06 A.M. EDT

Saturday, May 1, 1999

PRESS BRIEFING BY
GEORGE FRAMPTON, ACTING CHAIR OF THE COUNCIL
ON ENVIRONMENTAL QUALITY, and
CAROL BROWNER, ADMINISTRATOR OF THE
ENVIRONMENTAL PROTECTION AGENCY

The Briefing Room

3:12 P.M. EDT

MR. TOIV: Good afternoon. This briefing, as you all know, is embargoed. It is on the record for broadcast. However, it is embargoed until 10:06 a.m. on Saturday. The subject of the briefing is the President's radio

address tomorrow. And here to brief are George Frampton, who is the Acting Chair of the Council on Environmental Quality; Carol Browner, who is the Administrator of the Environmental Protection Agency; and also here and available to answer questions is Josh Gotbaum, who is the Executive Associate Director of the Office of Management and Budget.

MR. FRAMPTON: Ladies and gentlemen, good afternoon. I'm George Frampton, Acting Chair of the Council on Environmental Quality. Tomorrow, in his radio address, the President will announce a major step forward in cleaning up the air we breathe and in giving consumers cleaner transportation.

He'll announce a new proposed rule under the Clean Air Act that will require significant reductions in tailpipe emissions for cars, light trucks and SUVs; and at the same time, a proposed rule to require a very significant, 90 percent reduction in the sulfur in gasoline, to clean up automobile fuels.

I think that there are two things that are quite extraordinary about this proposed rule. First, that it takes major, major steps forward to clean up the air and that it does so across the board for all kinds of light vehicles. The rule is phased in between 2004, which is the first year that we could do this under the Clean Air Act for tailpipe emission standards, to 2009. By 2009, all kinds of vehicles, including SUVs and light trucks, will have to meet the same tail pipe emission standards.

It's a major step forward, cleaning up the air. It's also extraordinary in terms of the process that was used here. EPA Administrator Browner and her staff and the Administration have engaged in what I think is a really unusual and productive series of stakeholder discussions over the past six or eight months, and particularly the last few months, with the automobile industry, the oil industry, refiners, public health officials and experts with state and local government, with the environmental community to reach a balance, to hit the sweet spot. It will clean up the air, but will also take care in account of particular problems that industry has in meeting this rule, which is a strong rule.

So that has been a very unusual and, I think, productive process. And I think that the proposed rule will really strike a good balance, the right balance, and will clean up the air. This process will continue. This is a proposed rule and we will continue in the same spirit and in the same vein, in the same process, to try to talk to all interested parties after the rule is published over the coming months to make sure that if there are changes, if there are small changes, or things that we haven't quite got the right balance or hit the sweet spot, that the final rule will do that. I think it's been a very unusual and very successful process, to date. We hope to continue it. Thank you.

Carol.

ADMINISTRATOR BROWNER: Thank you, George. And let me begin by thanking both George, Josh and the people who work with them. It has, indeed, been an unusual process, a tremendous amount of time and energy spent with the automotive industry, with the

petroleum industry. I, personally, met with CEOs, I met with environmental vice presidents and we engaged in what I think will be a dialogue that will serve the American people well.

Let me welcome you here to the White House, those of you who normally cover us at the Environmental Protection Agency; and let me thank all of you for coming here today.

Over the past six years, the President and the Vice President have made cleaner air for the people of this country one of their key environmental priorities. Today's proposal for the next generation of cleaner cars is in keeping with that tradition. These new, cost-effective standards would provide every single person in this country cleaner air. It will protect their health and their environment.

There are three important parts to this proposal. First, for the first time ever we are proposing to hold sport utility vehicles and light duty trucks to the same national pollution standards that passenger cars will meet.

Second, also for the first time ever, to achieve cost-effective reductions we are treating tailpipe emissions and gasoline as a single system -- what comes out of the tailpipe is a function, in part, of the gasoline. Not only will manufacturers build cleaner cars, but refiners will be producing cleaner fuels that contain less sulfur. Sulfur is a pollutant that can inhibit the effects of pollution reduction technology. It can literally poison the catalytic convertor.

Third, working with the automotive and petroleum sectors, we have built in flexibility that will allow them to do this in the most cost efficient manner, that will give them both the opportunity to take advantage of market mechanisms in the time frames that will allow us to achieve the greatest amount of pollution reductions at the lowest cost.

Last year, EPA issued a report in which we concluded that given the increase in miles driven or miles traveled, and the changes in the make up of the fleet mix, including an increase in the number of sport utility vehicles and light trucks, tighter standards were needed to continue this country's incredible progress in providing cleaner air.

After months of collaboration with interested parties, we have decided and we are proposing today that a cost efficient tailpipe standard of .07 grams per mile of nitrogen oxides is attainable and that it will give us the necessary pollution reductions to provide the American people with clean, healthy air. These reductions represent a 77 to 86 percent decrease for cars in the amount of pollution, and a 92 to 95 percent decrease in pollution from SUVs and light duty trucks.

Let me explain quickly how this program will work. For cars

and vehicles under 6,000 pounds -- that is, your passenger cars and many of today's minivans -- the new requirements would be phased in over a four-year period in 25 percent increments, beginning with the year 2004, which is the first year we are allowed to make these requirements under the Clean Air Act of 1990. By the year 2007, all cars and light duty trucks -- ones and twos, minivans -- would be required to meet the new proposals.

In terms of the heavier trucks, the larger sport utility vehicles, they would begin the program with an initial reduction in 2004, bringing them down almost 60 percent and then they would phase into the car program from the years 2004 to 2009.

To make the fuels that our vehicles burn cleaner we will also phase in a 90 percent reduction of sulfur and gasoline beginning in the year 2004. Sulfur not only pollutes our air but it also, as I said earlier, poisons the performance of catalytic converters that are installed to actually help clean our air, or to really scrub the emissions. By addressing both sulfur and gasoline in the tailpipe standards at the same time by bringing these programs on line together, we believe that we will be able to further reduce the cost and provide cleaner air for the American people more quickly.

The nation's refiners will have to meet a sulfur standard of 30 parts per million by the year 2004. For the less than two dozen small refineries, we do provide some additional flexibilities, including an additional two to four years.

To ensure that both industries can meet these goals, the proposal contains a number of important flexibilities including an averaging scheme, in the case of the vehicles the entire fleet will have to meet an average of .07. No vehicle can be in excess of .2. We also have structured the proposal to allow recognition and credit for those in either industry who choose to provide these pollution reductions earlier than we are able to require under the law.

So, for instance, beginning in the year 2001, automobile manufacturers could obtain credits for later use for vehicles produced at or below the .07 standard. Refiners and oil importers would also be able to bank and trade credits that could be used in a later year to sell to another refiner.

The results of this proposal would be to cut emissions from cars and trucks by almost 80 percent of what they are today. The effect of this proposal is the same as if 166 -- 166 million cars were literally pulled off the road and parked. We estimate that this will keep 300 million tons of pollutants out of our air and every year work to help prevent the thousands of premature deaths and the onset of respiratory illness, aggravated asthma attacks associated with air pollution.

It is important to understand that today's proposal does not in any way limit a consumer's choice in vehicles. In almost all cases the manufacturing and the refinery sectors will be able to meet these standards by building upon and perfecting existing technologies, emerging technologies. What it does allow the consumer is the car of their choice but a cleaner car. What's the cost to consumers? Minimal. We estimate that the price of gas will rise one to two cents per year. That means for the average family of four an extra \$12 to \$24 dollars a year for cleaner air. The new catalytic converter technologies are estimated to be approximately \$100 to \$200 per vehicle. With this new standard we will maintain the nation's progress in meeting our clean air goals. And as I said, we will allow every American to breathe cleaner air.

We now enter a period of public comment and outreach. We want to hear from the American people about these proposals. We will be working with industry, with public health officials, state and local government leaders, consumers. We will be conducting public hearings across the country. This administration is committed to finalizing this proposal by the end of the year so we can begin the job of cleaner air for the American people, building on this President's, the Vice President's commitment and their work of the last six years.

We are now more than happy to answer any questions you may have.

Q From what I understand, the largest sport utility vehicles, some of them like the Chevy Suburbans and the new Ford -- whatever it's called, Excursion -- would be actually too heavy to apply for any of these regulations.

ADMINISTRATOR BROWNER: This is actually an interesting question. We capture everything up to 8,500 pounds. When we began this work I don't think things existed over 8,500 pounds. They now exist. We are keenly aware of that. So we have modified this proposal to take comment on how to include those slightly larger SUVs, to bring them into the same program that will address all the other SUVs and the passenger cars. So we are taking comment on that and we do intend to make a decision on that.

But, literally, they didn't exist when we began this process.

Q Administrator Browner, there's been some concern among the auto industry folks about whether they'll be able to continue to make diesel engines, because they arguably can be more efficient. Will that be possible under this proposal? And are there components of the proposal to allow that to happen, and how do they work?

ADMINISTRATOR BROWNER: I want to be clear, there is no diesel loophole. This proposal does allow for some of the cleaner, more fuel efficient technologies that are now emerging, for example, in Europe. It would allow for cleaner diesels. For example, some of the work that's going on, as I said, in some of European countries.

We do intend to shortly put forward a proposal for cleaner diesel. The fuels that we covered in today's announcement are the traditional gasoline, the sulfur reductions; but we will also be making a proposal on cleaner diesel fuels.

We recognize that there can be benefits from clean diesel engines with clean diesel fuels, that it can give you a level of fuel efficiency that can be extremely important both for environmental reasons and for the consumer. And so we worked very hard to structure a proposal that would allow for those cleaner technologies and, yet, guarantee the kind of public health benefits that were so important to us.

Q Just to follow up, but you're not including diesels under the same standards as gasoline cars and trucks, are you?

ADMINISTRATOR BROWNER: Oh, no, no, no. Whether you use diesel fuels or traditional gasoline, your vehicle is covered under this program. We are also, in this proposal, picking up traditional gasoline in terms of reducing sulfur and we will shortly make a proposal on diesel fuels.

Q The auto makers had asked for a third party review, if possible. Is that going to happen and is there a date certain on that?

ADMINISTRATOR BROWNER: We're taking comment on how to fashion some sort of a technology review as the program comes on line. That is not something that we've made any final decision about. The automobile industry did bring that to our attention and we are asking the public for comment on how we might structure such a technology review.

Q Just to follow up, is there a deadline on that commentary period?

ADMINISTRATOR BROWNER: Yes, the comment period is 60 days and it will begin, I think, effective Monday.

Q Comment period of 60 days? You hope to finish the rule by the end of the year?

ADMINISTRATOR BROWNER: We will finish the rule by the end of the year. I'll tell you why --

Q Then what happens for the next four years?

ADMINISTRATOR BROWNER: Under the law, under the Clean Air Act amendments of 1990, EPA was allowed to set the next round of tailpipe emission reductions for model year 2004 -- that was the earliest we could do it. Now, this administration has achieved a voluntary agreement with the automotive industry that is already bringing on line some cleaner cars, reducing the NOX emissions. Today's proposal would go much, much further.

But the first year we could do it in was model year 2004. We are required under the law to give the automotive industry a certain period of time to prepare for that. That has the effect of requiring us to be done by the end of this year. If we don't finish by the end of the year, we will finish by the end of the year or we would lose a full model year and we don't think the American public should have to wait any longer for cleaner air and for cleaner cars.

Q Can I got back to your cost estimate? You said one to two cents --

ADMINISTRATOR BROWNER: Per gallon.

Q -- per gallon. Now, is that per year? Is that --

ADMINISTRATOR BROWNER: Per gallon.

Q Okay. You said one to two cents a gallon, per year. Does that mean two to four cents in a second year?

ADMINISTRATOR BROWNER: No. It's one to two cents forever, in essence. I think the additional way to think about it that I tried to offer you was for the average family of four, that would be \$12 to \$24 a year, not an awful lot to pay for cleaner air.

Q And can you repeat the percentage reductions, again, in pollutants for cars and SUVs and light trucks?

ADMINISTRATOR BROWNER: For the passenger cars and what we refer to as light duty trucks -- which are, essentially, minivans, something weighing 6,000 pounds or less -- the percent reduction is 77 to 86 percent of NOX, and some other pollutants are included in that. For the larger, the 6,000 to 8,500 pound vehicles, it's a 92 to 95 percent reduction.

But, again, let me -- we did something very, very important here that allows us to get cleaner air even quicker than I think was originally envisioned. Remember, we can't make any requirements to 2004. So what we have done is said in 2004 everything is going to take an initial drop and then we will

phase into the .07 averaging program. So, for example, right now the largest SUVs are, their emissions are running at 1.53 parts per million, we would drop that down immediately to .6 and then further on into the .07 averaging scheme. But you get almost a 60 percent reduction beginning in 2004 from the largest vehicles.

Q Would the changes in the catalytic --

ADMINISTRATOR BROWNER: This is something California did not do, by the way.

Q That inclusion of the larger SUVs in the initial whack, was that in your original proposal as it went to OMB, or was that an addition?

ADMINISTRATOR BROWNER: This was a collaborative process, we all worked together. I don't think there is a situation that -- I don't think it's fair to say things were additions or deletions. It was an incredibly collaborative process and we all stand here today making this announcement and this proposal to the American people.

Q Is that a "yes"?

ADMINISTRATOR BROWNER: That's an answer. (Laughter.)

Q Would the changes to the catalytic convertors -- are they going to have any foreseeable impact on performance for these vehicles?

ADMINISTRATOR BROWNER: We don't anticipate -- in fact, if you take the time to actually look at our proposal, you will see that we have actually put one of these cleaner catalytic converters on an SUV that we purchased off the lot and we're achieving the reductions that are envisioned. Obviously, we're not able to make the kind of engine adjustments that the manufacture can make. We can simply apply the new -- apply the new catalytic convertor, put the fuels in and see what kind of reductions we can get. And we are able to get them right now.

Q But in that experiment, did it have any effect on the performance of the vehicle?

ADMINISTRATOR BROWNER: No, it did not. No. And, in fact, another point that I should just make to you is when -- this requirement is at 120,000 miles, so you have to be able to meet the lower emission requirement out to 120,000 miles, recognizing that that is generally the life of a car. It was important not to simply look at what's a new car, or a two-year-old or a three-year-old car, but to actually go over the life of the vehicle.

Q Is there any regionalization in this plan, in the sense that the one to two cents that you mentioned -- does it raise if

you're from, say, New York City, versus if you're from Wyoming, for instance?

ADMINISTRATOR BROWNER: Well, there are lots of things that can affect prices. We looked at it from a national perspective, our economists looked at it from a national perspective.

You know, let me just take an opportunity, or a moment, here to say something. Obviously, there are going to be people out there saying different things about prices. You know, there is a long history in the United States of industry claiming that pollution reductions are going to be very costly. Time and time again, that has proven to be wrong.

For example, when EPA required the petroleum industry to take lead out of gasoline, they projected very high costs. The reality was very different, the benefits significant. Similarly, acid rain -- it was projected to be very high.

I know some in industry may suggest those sorts of costs. They have traditionally been wrong. We have looked at this. We have worked with people in industry. We believe this is incredibly cost-effective, one to two cents a gallon for cleaner air.

There are no regional distinctions; it is a national program that we are proposing. And I will explain why. Some had suggested to us that we regionalize it, and we'd have gasoline with one amount of sulfur in one part of the country, and another amount of -- you know, higher sulfur. Remember, we're recommending a 30 parts per million. On average, in the United States today, it is 330 -- in some areas it is as high as 500. So we are recommending, our proposal is for a 30 parts per million average, a cap of 80 parts per million -- a very significant reduction.

The reasons that we did not make a proposal on a regional basis are several, but the most important reason is, as Americans, we love to drive across our country. We love to drive from state to state. Sulfur poisons a catalytic converter; it really does damage to its ability to scrub out the pollution.

And so if a person with a nice, clean catalytic converter who's using nice, clean gas were to drive to an area where the gasoline was not as clean, they would do damage to their car's ability to continue to function as a cleaner car.

So recognizing that, as Americans, we love to go on our family vacation, drive across the country, we are proposing a national program for the country.

Q What do you figure this will do for smog -- in Los Angeles, for instance? Is it going to cut it by a third, a half?

ADMINISTRATOR BROWNER: No, remember California has its own air pollution programs. Under the federal law, they were given their own authorities.

This does help California -- although California has taken another set of steps -- it helps California for two reasons. One, because lots of cars come into California, so the tougher standards will help California. California has their own car standards.

The second reason it helps California, California has already gone to cleaner fuels, but again, people coming into California with the less clean fuels, and people in California leaving the state filling up with high sulfur content fuel are losing the benefits of those cleaner catalytic converters. So there is a benefit to California, but they do have their own authority under the Clean Air Act.

The real effect here -- it is cleaner air for every person in the country, including the people of California, they do get a benefit for this -- the larger effects will be felt outside of California in the large metropolitan areas. California has their own car standards. They were given their own authorities. And they made a proposal earlier this year to go to cleaner catalytic converters, they chose a different way of getting there than we are proposing.

Our proposal does have benefits to California and we get greater reductions earlier than California because of this initial reduction we take in 2004, in terms of the large SUVs. In California the larger SUVs would stay outside of their program until, I think, 2008, 2009. We felt that getting a first round of reductions, particularly from SUVs, was extremely important in terms of air quality.

Let me go to someone back there and then these two.

Q Two questions. First, are you going to do anything about fuel economy? That's not directly your agency, but you are responsible on global warming issues and the carbon dioxide from some of these vehicles getting eight miles a gallon has been a question posed. Second of all, when you talk about the 75 percent, isn't that including some of the so-called voluntary reductions that are already happening next year for the cars, anyway? Wouldn't their be a wider spread between the cars versus the SUV reductions if you take out what's already --

ADMINISTRATOR BROWNER: No, the bigger reduction will still be in the SUVs. I mean, the baseline that you look at is what would -- you're talking about the national lower emission, the NLEP program -- for cars and light duty truck ones, the first category of trucks were picked up in that, it's a .6 cap with a .3 average. For the threes and fours, they stayed into the

program that allows them to sit at 1.53. So it's a fairly significant reduction when you go to the .6 in 2004. What was the second part of your question? I apologize -- oh, fuel efficiency.

One of the very important things about how we structured our proposal was to recognize that there are these new emerging clean diesels, for example, that will bring with them fuel efficiency benefits. So while it is an averaging program where your fleet average is a .07, there is a cap of .2. No vehicle can be greater than .2. And we believe -- and, in fact, I met with diesel engine manufactures who are looking at these clean diesel technologies -- that that will allow for the more fuel efficient clean technologies to become available.

Q The auto makers are now saying that they need or want five parts per million in 2008, so the big sport utilities can meet this. How do you feel about that and is that something you're accepting comments on?

ADMINISTRATOR BROWNER: Yes, we are taking comment on that. What we tried to do -- and EPA has never done this before -- no administration has ever done this -- which is to look at both the fuels and the tailpipe. Historically, what has happened is something happens on fuels and then something happens on tailpipes and then something happens on fuels and it's been back and forth. And in most instances -- finally Congress had to set the tailpipe standards, EPA was unable to do it, for any number of reasons. So for the first time ever this Administration said let's look at it as a system, let's look at fuels, let's look at the tailpipe.

The car manufacturers did raise the issue of even lower sulfur. We will take comment on that. We did structure this proposal to look to both industries to do their part, if you will, perhaps a balancing between the two industries. Now, obviously, in the early years of a program the gasoline part of the reduction is higher in terms of the number of tons of pollution that come out of the air because you have, you know, cars, fleets have to turn over.

But as you get to full implementation cars and gasoline, it's roughly equivalent in terms of the number of pounds of pollution reduction. It's a 50-50 split that we achieved between the two industries. And the costs are roughly equal between the two industries. And that was part of what we were looking to do, to really put together a proposal that would ask both sectors to do their part in a cost-effective and an efficient manner.

Q But wouldn't the cost of gas possibly go much higher if you had to go down to five parts per million?

ADMINISTRATOR BROWNER: We looked at -- the cost analyses that we did were focused on the 30 parts per million and the time

frame that we had proposed. We did not look at that issue.

Q Ms. Browner, could you answer a question on another subject? There was a report this week that about eight different environmental groups had withdrawn from a toxics advisory committee because they were disappointed at the speed at which the EPA was issuing new standards for toxic substances.

ADMINISTRATOR BROWNER: It's actually a little bit different. It's on pesticide chemical registrations, yes.

Q Can you explain what your reaction is to that?

ADMINISTRATOR BROWNER: It's a new law. The President signed this law -- we argued in Congress for two years to get a new food safety law passed to allow EPA to set standards on all foods and not simply processed foods, to set standards to protect children's health. It is a mammoth undertaking for us, and we are on schedule.

We did create a public advisory committee, made up of farmers, manufacturers, the United States Department of Agriculture, environmentalists. You know, in a perfect world, would everything go more quickly? Absolutely. We are on schedule to meet all of our statutory deadlines to take the steps to ensure safe, abundant food for the people of this country, to protect the health of our children.

We are disappointed that the environmentalists couldn't hang in there for the next several months while we make those sorts of decisions. That is the schedule we articulated from the beginning, and -- you know, it's very disappointing that so many people have put a lot of time and energy into this process to find the best ways to provide the protections and, yet, they couldn't work with us for two more months.

Q What are your cost estimates for compliance for the auto and oil industries, respectively? And, secondly, could you repeat how long the refineries will have to comply?

ADMINISTRATOR BROWNER: The costs are approximately \$3.4 to \$4.4 billion. The benefits, in terms of the public health benefits -- everything from reduction in respiratory illness, asthma, crop loss, death, premature deaths that would be avoided -- approximately \$16.6 billion. The benefits to the public's health far outweigh the costs.

What was the second part of your question?

Q You mentioned, I think, a time frame --

ADMINISTRATOR BROWNER: Oh, yes, I'm sorry. For petroleum, the phase in begins in 2004, through 2006. It ends with a 30

part per million average, with a cap of 80. Just so you know, today gasoline is anywhere from 330 to 500 parts per million sulfur. It's a very significant reduction.

There are approximately two dozen small refineries under the SBA definitions. They are given additional time, given their unique situations -- a minimum of two years and, if necessary, for hardship reasons, they can have up to an additional four years.

Q So larger refiners would have to comply 2004?

ADMINISTRATOR BROWNER: Beginning in 2004, they can phase in, to 2006. And one of the flexibilities we offered for both industry sectors are credits for earlier reductions, so you can use -- if you're willing to -- and some, I mean, this has been reported through many of you, that some in the petroleum industry have already suggested that they're prepared to move towards cleaner fuels to lower sulfur, specifically.

Q -- that's for both industries?

ADMINISTRATOR BROWNER: Yes, and they're roughly -- they roughly split out. Again, things vary between the two industries in the short-term, because of when investments get made. But when you look out over the life of the program, it evens out.

MR. TOIV: This will be the last question.

Q Because this is being phased in, and because it applies to new cars, and obviously it would take a long time before most of the nation's vehicles fall under these regulations, I mean, it seems like --

ADMINISTRATOR BROWNER: You'd be surprised how quickly it starts to affect the air we breathe. For example, fuels, it's an immediate effect, right? The first day that you have cleaner fuels, there's a measurable effect. In 2007, you're already achieving 800,000 tons of reduction. By 2010, you're up to 1.2 million tons of reductions. So it happens quickly.

You're right, there is a fleet turnover. And that is part of why -- when we looked at fleet turnover, when we looked at life cycle -- that is part of why we took this initial significant reduction, are proposing this initial significant reduction in 2004 -- to bring in the SUVs, to drop them that 60 percent. I mean, there's some effect on cars, but the really big chunk of it is on the SUVs, as opposed to California, who waits until the end of their program. And that was as we looked at these issues of fleet turnover and life of vehicles, we thought that was extremely important, to get the cleaner air more quickly.

MR. TOIV: Last question.

Q Administrator Browner, the Administration will be participating in the Sustainable Development Conference next week in Detroit.

ADMINISTRATOR BROWNER: Starting Sunday, yes.

Q Can you articulate exactly what specific outcome the Administration would like to see, what goals you would like reach?

ADMINISTRATOR BROWNER: Well, there is a great thing happening in this country. Community by community, people are coming together and looking at how they can grow their community smarter and healthier. Everything from the ballot initiatives we saw in November, where people were putting forward bond proposals to acquire to preserve green spaces, to some of the transportation challenges that communities are facing and are successfully beginning to answer.

As we traveled across the country we heard communities tell us great things that they were doing, and they would always say, what's going on in other communities? So this is an opportunity. Detroit is an opportunity for communities, for leaders, for elected officials to come together to learn from each other what is happening, what they can do. There is no requirement for any of this, it's not some federal program. It is simply an opportunity to learn from each other, to do the work community by community.

You know, when you look at the environmental challenges we face in this country, there is a host of dilemmas and challenges that have to be addressed from the national level. That's what we're proposing to date -- cleaner cars, cleaner fuels. There is a whole lot of communities who want to go beyond that, who want to make a set of local decisions that will further enhance their environment. Detroit is about that, helping communities learn from each other.

Thank you all very, very much.

MR. TOIV: And just a reminder, we're going to hand out paper very shortly on this so you won't have to memorize all those numbers. Secondly, that paper and this briefing are embargoed until 10:06 a.m. on Saturday. Thank you.

END

3:45 P.M. EDT

Mindy E. Myers

04/30/99 06:22:33 PM

Record Type: Record

To: Lisa M. Kountoupes/WHO/EOP@EOP, Roger S. Ballentine/WHO/EOP@EOP

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Subject: EMBARGOED 5/1/99 POTUS radio address

----- Forwarded by Mindy E. Myers/WHO/EOP on 04/30/99 06:22 PM -----



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THE WHITE HOUSE

Office of the Press Secretary

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For Release

Until 10:06 A.M. EDT

Saturday, May 1, 1999

RADIO ADDRESS OF THE PRESIDENT
TO THE NATION

THE PRESIDENT: Good morning. Today I want to talk to you about one of the most important steps we can take to clean the air we breathe, and protect the health of all Americans.

Over the past generation, our nation has made enormous progress in improving the quality of our air. In the late 1960s, carbon monoxide, lead, and smog levels were so high in several major cities that walking to school in the morning could be almost as harmful for young children as smoking cigarettes.

Today, people are breathing easier all across our country. Thanks to engineering breakthroughs and bipartisan environmental stewardship over the past three decades, we have reduced the annual emissions of harmful pollutants by a remarkable 70 million tons.

Over the past six years alone, even as our nation has produced the most dynamic economy in a generation, we have improved air quality in every single state. We've reduced toxic air pollution from chemical plants by 90 percent. We've set the toughest standards in decades for smog and soot, which will prevent millions of cases of childhood asthma. Just last week, the Vice President announced a new effort to clear the haze, and restore pristine skies to our national parks. But we must do more.

Americans love to drive, and we're driving more than ever. But the emissions from our cars, particularly from the larger, less efficient vehicles, threaten to erode many of the air quality gains America has achieved. As a result, many of our states and cities are no longer on course to meet our vital air quality goals.

So last year, EPA Administrator Carol Browner sat down with members of the oil and auto industries, environmental and public health groups and state and local governments, to study how we can stay on track. The level of cooperation was unprecedented, and so was the result.

Today, I am proud to announce the details of this EPA proposal. The proposal would achieve a dramatic reduction in air pollution for the 21st century, and it would do so in the most cost effective and flexible ways. For the first time, we would require all passenger vehicles, including the popular sport utility vehicles, to meet the same tough pollution standards. And for the first time our plan addresses not only the cars we drive, but also the fuel they use. Because sulfur clogs and impairs anti-pollution devices, we're proposing to cut the sulfur

content of gasoline by about 90 percent over the next five years.

Beginning in the year 2004, manufacturers would start producing vehicles that are 75 to 95 percent cleaner than those rolling off the assembly lines today. And the health benefits would be enormous. Every year we can prevent thousands of premature deaths, tens of thousands of cases of respiratory illness and hundreds of thousands of lost work days.

According to some estimates, the benefits of the proposal may outweigh the costs by as much as four to one. In designing this proposal we've taken great pains to make sure these new standards will not cause hardship for industry or reduce consumer choice.

In many cases, existing technology will allow manufacturers to meet the new standards and still offer the same models popular with consumers today. To accommodate manufacturers and sport utility vehicles, and others who face special challenges, our proposal provides extra time to meet the new standards. We will

spend the next several months getting comments and suggestions on the plan. Now that the EPA has published its proposal, a 60-day period of public comment and public hearings will begin. With the help of interested citizens, industry and public health and other groups, we believe we can finalize this proposal by the end of the year.

Ever since the days when thick smog was choking our major cities, pessimists have claimed that protecting the environment and strengthening the economy were incompatible goals. But, today, our economy is the strongest in a generation and our environment is the cleanest in a generation. Whether the issue was deadly pesticides, fouled rivers or polluted air, the American people have always proved the pessimists wrong.

With the EPA's new clean air proposal, we will prove them wrong once again. Not only will we enhance our long-term prosperity, we will ensure that our children inherit a living, breathing Earth, our most important obligation of all.

Thanks for listening.

END

Message Sent To: _____

Congress of the United States
Washington, DC 20515

March 25, 1999

The Honorable Carol M. Browner
Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

We understand that EPA will soon publish a Notice of Proposed Rulemaking (NPRM) to set more stringent emissions standards for light-duty cars and trucks. This next stage of standards will build on the U.S. automotive industry's February 1998 voluntary National Low Emissions Vehicle (NLEV) program. NLEV combines the latest advancements in technology to achieve significant additional reductions in hydrocarbon and oxides of nitrogen emissions of 70 and 50 percent, respectively. If a 16 oz. bottle of spring water represented the tailpipe emissions of a vehicle produced in the 1970s, the emissions from the NLEV would fail to fill the bottle cap

The new emissions standards will call on the U.S. automotive industry to do more, and it is a challenge the industry accepts. Our understanding is that the Alliance of Automobile Manufacturers, which accounts for more than 90 percent of North American light-duty vehicle sales, has stepped forward in recent weeks with a very aggressive proposal. Among other things, the Alliance proposal takes yet another step beyond the progress guaranteed by the industry's adoption of the voluntary NLEV program by committing to standards that go beyond current, known technology. In addition to assuring significant additional reductions in NOx, the proposal breaks new ground by requiring cars and heavier light trucks, such as pickup trucks and sport utility vehicles (SUVs), to ultimately meet the same NOx standard

These new standards present major challenges, and if not designed properly, could have both adverse and unintended consequences on consumers, competitiveness and employment in the industry. Specifically, the NPRM should include the following components.

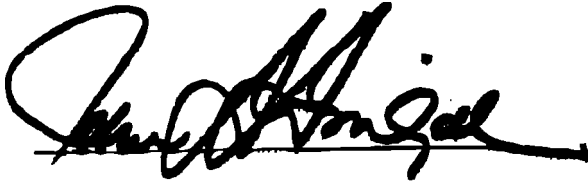
- Reductions in fuel sulfur content to enable innovative emissions control technologies;
- Sufficient lead-time to develop technology to address the functional needs of all vehicles;

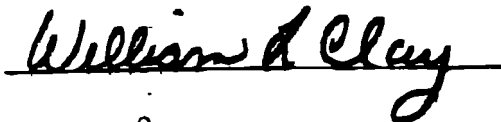
The Honorable Carol M. Browner
Page 2

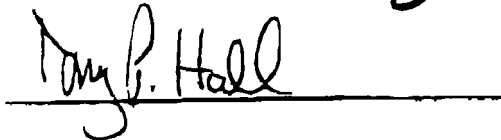
- Fleet averages and standards that do not effectively preclude the use of promising advanced technologies; and,
- An independent third party review regarding the viability of attaining very stringent performance levels, no later than 2004.

We urge EPA to take into account the Alliance's proposal and needs before finalizing this NPRM. We look forward to working with you during the formal rulemaking process.

Sincerely,













cc: The Honorable Al Gore
Vice President of the United States

Mr. John Podesta, Chief of Staff
The White House

CRS Report for Congress

Congressional Research Service • The Library of Congress

Nitrogen Oxides and Electric Utilities: Revising the NSPS

Larry Parker
Specialist in Energy and Environmental Policy
Environment and Natural Resources Policy Division

Summary

Under the Clean Air Act (CAA), the Environmental Protection Agency (EPA) sets New Source Performance Standards (NSPS) for emissions of nitrogen oxides (NO_x) from utility boilers, combustion turbines, and combined-cycle units. The NO_x NSPS, set in 1979, became outdated as NO_x control technology advanced. Consequently, in the 1990 Clean Air Act Amendments, Congress directed EPA to revise the 1979 NO_x NSPS for fossil fuel-fired boilers. EPA promulgated a new NO_x NSPS for utility and industrial boilers on September 16, 1998 (63 *Federal Register* 179, pp. 48442-49455).

While the 1979 standard was stratified by fuel-type and combustion configuration, EPA has promulgated a uniform, one-size-fits-all performance standard. EPA argues that a performance standard levels the playing field for all fuels, a contention disputed by coal interests who argue that the playing field is not level because coal combustion is inherently more NO_x producing than natural gas combustion. The new uniform standard would tend to encourage construction of natural gas-fired powerplants at the expense of coal-fired ones. Analysis suggests, however, that the new NO_x NSPS may be essentially moot in terms of influencing fuel choice for new powerplant construction, or reducing NO_x emissions, because of overriding trends in state Best Available Control Technology (BACT) determinations and in electric utility industry economics.

Why Regulate NO_x?

Nitrogen oxides (NO_x) are a family of brownish gases that enter the air through a variety of natural and human activities. In general, any activity that involves combustion creates some NO_x, including electric power generation, automobile and truck engines, and many industrial processes. Of the 23.4 million tons of NO_x emitted in the U.S. during 1996, 6.0 million tons (26%) were from electric utilities, 7.2 million tons (31%) from highway vehicles, 3.2 million tons (14%) from industrial combustion, 4.6 million tons (20%) from non-road vehicles, and 0.9 million tons (4%) from industrial processes. U.S. NO_x emissions have remained roughly constant over the past 10 years, as increases in



vehicles and power generation have been offset by new equipment meeting more stringent emission standards.¹

Nitrogen oxides, both directly and because they contribute to formation of ozone, raise human health and environmental concerns that bring them under the purview of the CAA. Nitrogen dioxide (NO₂), the index compound for nitrogen oxides, can irritate the lungs and lower human resistance to various respiratory infections, such as influenza. In combination with volatile organic compounds (VOCs) and in the presence of heat and sunlight, NO_x forms ozone, for which human health concerns include lung damage, chest pain, coughing, nausea, throat irritation, and congestion. Ozone also exacerbates the effects of bronchitis, heart disease, emphysema, and asthma.² In addition, nitrogen oxides are precursors of fine particulates, which are suspected of significant human mortality and morbidity effects. In 1997, EPA established a fine particulate NAAQS.

Environmental concerns about NO_x emissions include its transformation into nitric acid, a component of acid precipitation; visibility impairment; and known effects of ozone on plant life.³ In addition, EPA estimates that up to 40% of the nitrogen "loading" in the Chesapeake Bay, resulting in excessive nutrient enrichment, is the result of deposition of air-borne nitrogen oxides. In the West, nitrogen oxides contribute to visibility impairment, particularly in southern California.

How is NO_x Regulated?

The multiple effects resulting from NO_x emissions have led to their control under several different parts of the CAA; these are discussed below, concluding with a discussion of the NSPS, which has a crucial role in setting the floor for other technological standards for emissions from new facilities such as steam electric generating facilities.

Primary National Ambient Air Quality Standards (NAAQS) set maximum levels of permitted pollution concentrations nationwide. NAAQS are federally enforceable with specific deadlines for compliance; they are required by Section 109 of the CAA to protect the public health with an "adequate margin of safety." They are periodically reviewed to take into account the most recent health data. Three NAAQS may result in NO_x controls: NAAQS for nitrogen dioxide, ozone, and fine particulates.

In 1994, all monitoring locations in the U.S. were in compliance with the NO₂ NAAQS; however, compliance with the ozone NAAQS remains elusive in several parts of the country, particularly in southern California, the Texas Gulf Coast, and the Northeast

¹ U.S. Environmental Protection Agency. *National Air Quality and Emissions Trends Report, 1996*. Research Triangle Park: Office of Air Quality, January 1998. p. 84.

² For a discussion of human health effects of air pollution, see Lippmann, Morton. "Health Benefits from Controlling Exposure to Criteria Air Pollutants," in Blodgett, John. *Health Benefits of Air Pollution Control: A Discussion*. CRS Report for Congress, 89-161 ENR, February 27, 1989. pp. 75-144.

³ For a discussion of ozone and acid precipitation effects on vegetation, see Shriner, David S., et. al. *Response of Vegetation to Atmospheric Deposition and Air Pollution: State of Science and Technology Report 18*. Washington, D.C.: National Acid Precipitation Assessment Program, December 1990.

corridor (from Virginia to Maine). Because NO_x is a precursor to ozone formation, NO_x control represents an important component in reducing ozone pollution. In recognition of the multi-state nature of the ozone problem in the Northeast, the 1990 CAA Amendments created an Ozone Transport Commission (OTC) to develop and coordinate emission reduction efforts for the area. (It will be years before the new NAAQS for fine particulates results in NO_x controls.)

For areas in attainment with the NO_x or ozone NAAQS, the CAA mandates states to require new sources, such as powerplants, to install **Best Available Control Technology (BACT)** as the minimum level of NO_x control required of a new powerplant.⁴ State permitting agencies determine BACT on a case-by-case basis, taking into account energy, environmental and economic impacts. BACT can be much more stringent than the federal NSPS, but can not be less stringent than NSPS.

For areas *not* in attainment with the NO_x or ozone NAAQS, the CAA mandates states to require new sources to install **Lowest Achievable Emissions Rate (LAER)** technology. Along with offset rules, LAER ensures that overall emissions do not increase as a result of a new plant's operation. LAER is based on the most stringent emission rate of any state implementation plan or achieved in practice without regard to cost or energy use. It may not be less stringent than NSPS.

A **Prevention of Significant Deterioration (PSD)** program (Part C of the CAA) focuses on ambient concentrations of pollutants (including NO₂) in areas of the country where air quality is better than the NAAQS. The provision allows some increase in clean areas' pollution concentrations depending on their classification. In general, historic or recreation areas (e.g., national parks) are classified class 1 with very little degradation allowed while most other areas are classified class 2 with moderate degradation allowed. Class 3 areas may be permitted to degrade up to the NAAQS. New sources in PSD areas must undergo preconstruction review and must install BACT; state permitting agencies determine BACT on a case-by-case basis, taking into account energy, environmental, and economic impacts. More stringent controls can be required if modeling indicates that BACT is insufficient to avoid violating PSD emission limits, or the NAAQS itself.

The **acid deposition control** provisions of title IV of the 1990 Amendments focus on total emissions from existing sources of sulfur dioxide and nitrogen oxides. For nitrogen oxides, section 407 of title IV requires tangential- and wall-fired (dry bottom, not cell burner equipped) boilers (group 1 boilers) designated to meet 1995 phase 1 reductions to meet an emission limitation based on low-NO_x burner technology. Regulations for phase 1 NO_x reductions were finalized in 1995. For phase 2 in the year 2000, remaining group 1 boilers are required to meet the same standard (or more stringent if technology and costs permit) as those covered in phase 1, and boilers with other firing configurations (group 2 boilers) are required to meet standards based on available technology that is comparable in costs to low-NO_x burners. EPA finalized regulations for phase 2 group 1 and group 2 boilers in 1996. (61 *FR* 245, pp 67112-67164).

Mobile source standards, set under title II of the CAA, establish statutorily determined emission rates for NO_x (and other emission gases) for automobiles and trucks,

⁴ More stringent controls can be required if modeling indicates that BACT is insufficient to avoid violating the NAAQS.

with specific deadlines and provisions for inspection and maintenance (I&M) programs for ozone non-attainment areas to ensure emission rates are maintained over the expected life of the vehicle.

New Source Performance Standards (NSPS) are federal standards defining the minimum controls necessary for new sources regardless of their location — in contrast to the PSD and NAAQS standards that focus on ambient concentrations of pollutants. EPA's NSPS determinations represent the floor for state BACT and LAER determinations in case-by-case situations.

Required under Section 111 of the CAA, NSPS require major new sources to install the best system of continuous emission reduction which has been adequately demonstrated. In making such an assessment, the CAA requires EPA to take into account "the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements." Also, Section 111 explicitly permits EPA to "distinguish among classes, types, and sizes within categories of new sources for the purposes of establishing such standards." To take into account technological innovations, the CAA originally required EPA to review and revise NSPS every four years. But at the time of enactment of the 1990 CAA Amendments, the last revision of the NO_x NSPS for electric and non-electric steam generating units had occurred in 1979. With substantial technological improvements in controlling NO_x having occurred during the 1980s, the 1990 Amendments (title IV, section 407(c)) required EPA to promulgate a new NO_x NSPS for electric and non-electric steam generating units by 1994 — a deadline EPA did not meet.

Thus, for constructing new powerplants, the CAA envisions the NSPS as the baseline for control efforts — with BACT potentially more stringent than NSPS in given situations, and LAER potentially more stringent than BACT. However, for NO_x, because technological developments had outstripped the 1979 standard, it had become virtually irrelevant as a "floor." As discussed below, current BACT determinations are typically more stringent than the current NO_x NSPS.

Technical Inadequacy of the 1979 NO_x NSPS

For utility coal-fired boilers, the 1979 NO_x NSPS was 0.6 lb. of NO_x per million Btu (lb./mmBtu) for bituminous coal and 0.5 lb./mmBtu of NO_x for subbituminous coal — standards that advancements in NO_x control technology outstripped in the 1980s. Indeed, the NO_x standard for *existing* tangential-fired coal boilers covered under the acid deposition title of the 1990 Amendments (0.45 lb./mmBtu) is more stringent than the 1979 NSPS. Added refinements to existing low-NO_x burner technology or some new clean coal technologies, such as fluidized bed combustion (FBC) permit achievement of emissions rates at about half the 1979 standard (to around 0.3 lb./mmBtu). The addition of more sophisticated control technology, such as Selective Catalytic Reduction (SCR), can reduce emission rates even further (to around 0.1 lb./mmBtu). Likewise, Integrated Gasification Combined Cycle (IGCC) technology could meet a NO_x standard in the vicinity of 0.1 lb./mmBtu. Various ammonia injection technologies could make other technologies, such as circulating fluidized-bed (CFB), capable of meeting a 0.1 lb./mmBtu standard or less.

Likewise, the 1979 NSPS for natural gas-fired boilers and combustion turbines had fallen behind advancements in control technology. The 1979 NSPS for natural gas-fired boilers was 0.2 lb./mmBtu. The NO_x NSPS for utility gas turbines is expressed in terms

of volume and is currently 75 parts per million (ppm) (roughly equivalent to 0.24 lb./mmBtu). Because the 1990 CAA Amendments refers to “steam generating units,” the mandate for a new NO_x NSPS only included the steam-generating portion of a combined-cycle unit. This is important as combined-cycle is the current technology of choice for new electric generating additions. In any case, the 1979 NSPS for gas turbines or boilers does not reflect the current state of technology. Manufacturers currently will guarantee new combined cycle units at 25 ppm (0.08 lb./mmBtu) with some offering units at 9 ppm (0.03 lb./mmBtu). These levels are achieved with only combustion modifications (“dry” controls); the addition of inside combustor catalysts, steam injection or SCR would reduce these levels even further (to 2 ppm or less). In the case of SCR, the cost would be about half that required to add SCR to an equivalent coal-fired unit.

Controversy over EPA New NSPS

EPA’s new NO_x NSPS has raised controversy with respect to the structure of the NSPS. The 1979 NO_x NSPS was stratified according to fuel-type and combustion configuration, and based on the performance of a particular control technology applied to each fuel/boiler type combination. EPA’s new NSPS, however, provides for a “fuel-neutral,” performance-based standard of 0.15 lb./mmBtu, which all utility boilers would have to meet regardless of fuel source.⁵ EPA argues that this approach expands available control options by allowing the use of clean fuels (e.g., natural gas) as a control method.

Coal interests consider this performance-based approach to be a subsidy for natural gas as natural gas technologies can meet this standard with no additional control technology or compliance costs. In contrast, coal will be faced with either adding SCR to conventional steam boilers or moving to currently more expensive clean coal technologies with or without additional NO_x control technologies.

In fact, a 0.15 lb./mmBtu NO_x NSPS standard does not represent the best available control technology (BACT) for either coal or natural gas boilers. BACT for coal would be in the range of 0.1 lb./mmBtu, reflecting the capabilities of IGCC, SCR, and other control combinations. Concern about costs and operational flexibility could justify a less stringent standard for small boilers, or when boilers are running at low load factors. BACT for natural gas turbines or combined-cycle units would be in the range of 0.03 lb./mmBtu (9 ppm), reflecting the current availability of units that can meet that standard, or an even more stringent 0.005 (2 ppm) that would reflect the additional capability of SCR or other wet controls. However, a less stringent NSPS standard might be justified by EPA after assessing economic and other factors.

Does the NSPS Matter?

NSPS represents the floor for determining BACT under the various NO_x control provisions of the CAA. At the current time, most BACT determinations result in considerably more stringent NO_x controls than the 1979 NSPS (generally as a result of PSD provisions). Based on EPA-compiled permit data for recent coal-fired powerplants, BACT determinations fell into the following ranges: 0.07-0.15 lb./mmBtu for fluidized-bed

⁵ EPA’s standard is expressed in terms of output, not input. It has been converted to input (assuming a 38% efficiency factor) to make it comparable to other numbers presented.

combustors with selective non-catalytic reduction (SNCR), 0.17 lb./mmBtu for pulverized coal boilers with SCR or SNCR, and 0.3-0.5 lb./mmBtu for pulverized coal boilers with low-NOx burners and overfire air. Only one cogeneration facility reported no NOx control and a BACT determination of 0.6 lb./mmBtu. The situation with natural gas was even more telling with no BACT determinations above 42 ppm. Based on control technology employed, BACT determinations for natural gas-fired facilities fell into the following ranges: 25-42 ppm for facilities using water (steam) injection, 3.5-9 ppm for facilities using SCR, and 9-42 ppm for facilities using dry controls.⁶

From these data, it would appear that a 0.15 lb./mmBtu standard will primarily have the effect of adding greater incremental cost to the construction of coal-fired powerplants relative to those fired by less NOx emitting fuels, such as natural gas. All else being equal, this will result in coal becoming less economic compared with these other fuels for new powerplant construction, and a corresponding reduction in NOx emissions compared with current standards.

However, the actual effect of the new NSPS on both fuel choice and NOx emissions may be small, given current realities in the electric generating sector and regulatory regime. First, natural gas, not coal, is the current fuel of choice for new electric generation, a choice reinforced by environmental considerations (acid deposition, global warming, smog), economic considerations (fuel price, technology), and changes occurring in the electric utility industry (competition in the generating sector, non-utility generators). A NSPS that is less stringent than performance levels currently achieved by gas-fired electric generating technologies will arguably have little effect on this trend in the industry.

Second, as indicated above, not only have many areas already moved beyond the 1979 NSPS in their BACT determinations, but some areas, like in California and parts of the Northeast, new facilities have to meet standards that are often more stringent than EPA's new NSPS. For these areas, the new NSPS is essentially irrelevant to the actual permitting process, which is primarily the domain of states, with EPA oversight.

The controversy over the new NOx NSPS standard may involve less than would first appear, both in terms of possible NOx emissions reductions or in terms of influencing fuel choice for new construction. Recent data indicate that many states (and manufacturers of generating equipment) have already moved to or beyond the new NSPS in their BACT determinations, making both it and its anticipated emissions reductions essentially moot. In terms of fuel mix, for at least the near-term, the existing dynamics within the electric utility industry appear sufficiently robust that it seems unlikely that the new NOx NSPS will have any significant effect on them. These dynamics would have to change substantially for the NSPS to affect fuel choice and potential future emissions.

⁶ Based on data from the BACT/LAER clearinghouse for the last five years, as compiled by EPA. EPA. *Analyzing Electric Power Generation under the CAAA*. Office of Air and Radiation, July 1996. Appendix B.

CRS Report for Congress

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Air Quality and the New Ozone NAAQS: The OTAG Process

Larry Parker and John Blodgett
Specialists

Environment and Natural Resources Policy Division

Summary

The Administration has announced that the recommendations of the Ozone Transport Assessment Group (OTAG) will provide the basis for its rule on regional compliance strategies to assist nonattainment areas to achieve the ozone National Ambient Air Quality Standard (NAAQS). Consisting of representatives of the eastern 37 states, OTAG was a 2-year process of assessing ozone transport, and developing recommendations to mitigate it. OTAG found that ozone transport becomes increasingly important over longer averaging times, indicating the importance of regional controls for attaining the new 8-hour ozone NAAQS. Strategies that OTAG recommended included controls on utilities, non-utility stationary sources, mobile sources, and fuels. However, OTAG's recommendations with respect to utility sources were very broad. Also, OTAG was unable to agree to a specific implementation strategy, opting instead for either a "cap and trade" or a "rate only" approach, depending on a state's discretion and EPA's approval.

Overview

On July 16, the Administrator of the Environmental Protection Agency (EPA) finalized a new National Ambient Air Quality Standard (NAAQS) for ozone. Accompanying the NAAQS was a White House memorandum discussing the general approach EPA was to take in implementing the new NAAQS.¹ Recognizing ozone as a regional pollution problem, the memorandum focuses on regional compliance strategies for the new NAAQS. In particular, the memorandum cites the work of the Ozone Transport Assessment Group (OTAG) as the basis of this approach. As stated therein:

¹ President Clinton. "Implementation of Revised Air Quality Standards for Ozone and Particulate Matter," Memorandum for the Administrator of the Environmental Protection Agency, July 16, 1997.



For the past 2 years the EPA has been working with the 37 most eastern States through the Ozone Transport Assessment Group (OTAG) in the belief that reducing interstate pollution will help *all* areas in the OTAG region attain the NAAQS. ... The OTAG completed its work in June 1997 and forwarded recommendations to the EPA. Based on these recommendations, in September 1997, the EPA will propose a rule requiring States in the OTAG region that are significantly contributing to nonattainment or interfering with maintenance of attainment in downwind States to submit SIPs [State Implementation Plans] to reduce their interstate pollution. The EPA will issue the final rule by September 1998.

OTAG represented a cooperative effort between states, the EPA, and numerous stakeholders to address the complex issue of ozone transport. However, opponents of the new ozone NAAQS argue that the OTAG recommendations are far too vague and ambiguous to be cited by EPA as a basis for implementation. This report provides background on the effort, and summarizes OTAG's assessment and recommendations.

Background

Interstate transport of air pollutants is not a new problem. However, the 1990 Clean Air Act Amendments (CAAA) provided the Environmental Protection Agency (EPA) and the states with new tools to address the problem. One of those tools is section 176A, a provision that permits the EPA, either on its own or by petition from any state, to establish a transport region to address regional pollution problems contributing to violations of a primary NAAQS. A commission of EPA and state officials is constituted to make recommendations to EPA on appropriate mitigating strategies. Based on the commission's findings and recommendations, EPA is required under section 110(k)(5) to notify affected states of inadequacies in their current SIPs and established deadlines (not to exceed 18 months) for submitting necessary revisions.

In 1995, EPA issued a planning guidance memorandum for ozone nonattainment areas classified serious or above.² Among its provisions was a call for a 2-year regional assessment of ozone transport and control strategies. The goal was for a consensus between EPA and the affected states on necessary additional regional and other emission reductions to achieve attainment in ozone transport areas. Based on results, states would submit plans by mid-1997 for appropriate local and regional controls to achieve attainment. If no consensus were reached, EPA stated it would use its authority under the Clean Air Act (CAA) to ensure the required reductions are achieved (particularly §126 and/or §110).

In partnership with the Environmental Council of the States (ECOS), OTAG initially met in May, 1995. The group consisted of representatives of the eastern 37 states and other relevant stakeholders, such as industry and environmental groups. The policy arm of OTAG consisted of the state environmental commissioners from the 37 states and the

² Nichols, Mary D. "Ozone Attainment Demonstration," U.S. EPA: Assistant Administrator for Air and Radiation, March 2, 1995.

District of Columbia and senior EPA officials. It was this Policy Group that voted on the proposals to be included in recommendations to the states and EPA.

To develop the necessary assessment data, OTAG created three subgroups and six workgroups to address modeling and assessment issues, strategies and controls, along with outreach and communications. Each subgroup held open working meetings to receive input from various stakeholders. The recommendations of these subgroups were submitted to the Policy Group via joint sessions of the Strategies and Controls and Modeling and Assessment Subgroups. The final OTAG meeting was June 19, 1997.

OTAG Assessment Results

OTAG analytical work began with the development of an improved emissions inventory from which extensive modeling of ozone transport could be conducted. From that modeling, two workgroups reached several conclusions with respect to ozone transport and the anticipated benefits from increased nitrogen oxide (NO_x) and volatile organic compound (VOC) control. Among those findings particularly relevant in light of EPA's new 8-hour ozone National Ambient Air Quality Standard (NAAQS) are the following:

- The perceived contribution of ozone transport is strongly dependent on how the ozone "problem" is defined. Local emissions are more important with respect to peak 1-hour concentrations than with respect to lower concentration thresholds and concentrations assessed over longer averaging times (8-hour or seasonal averages), where larger areas and longer distance scales become increasingly important.
- The central portion of the [37-State] OTAG domain is truly unique with respect to ozone and ozone transport. It persistently has elevated ozone levels producing an "ozone pool." Transport in any direction from this region has been implicated with high ozone levels in neighboring areas.
- High ozone levels in the southern portion of the OTAG domain are typically associated with stagnant [pollutant] transport conditions resulting in shorter transport scales than on average. In contrast, high ozone levels in the northern portion of the OTAG domain are more typically associated with higher speed and persistent transport conditions from inside the OTAG domain.
- The proposed 8-hour ozone standard [now finalized] will result in significantly more nonattainment areas across the OTAG domain which will be closer together. This will make ozone transport more critical with respect to nonattainment than it is under the current [now previous] standard.³

OTAG Recommendations

Of the 37 states that constituted OTAG, 32 voted in favor of the final recommendations with Alabama, Kentucky, Michigan, Virginia, and West Virginia voting

³ Air Quality Analysis Workgroup. *OTAG Air Quality Analysis Workgroup Results Summary*. [Http://capita.wustl.edu/otag/Reports/ExecSumm/AQASUM3.html](http://capita.wustl.edu/otag/Reports/ExecSumm/AQASUM3.html)

against. Those recommendations covered numerous areas, ranging from utility controls to increased research.

Size of Transport Region. Which states should comprise the ozone transport region was debated continuously during OTAG deliberations. Particularly, states west of the Mississippi River and some southern states argued that their emissions had de minimus effects on ozone transport. OTAG recommended that these “coarse-grid” states be exempt from OTAG-related controls. These states include North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Minnesota, Iowa, Arkansas, Louisiana, Mississippi, and Florida, as well as parts of Maine, New Hampshire, Vermont, New York, Michigan, Wisconsin, Missouri, Alabama, and Georgia. OTAG did recommend that Iowa work with Wisconsin in developing implementation plans for southwestern Wisconsin; that Kansas work with Missouri on implementation plans for Kansas City; and, that Oklahoma, Texas, Arkansas, and Louisiana share modeling results with Missouri.

Utility NO_x Controls. Potential increased NO_x control on utility plants was one of the most contentious issues within OTAG. The final recommendation reflects this contention by being wide enough to cover all points of view. Specifically, OTAG recommended a range in the 26 “fine grid” states between current Clean Air Act controls (i.e., existing requirements) to the lesser of 85% reduction from 1990 rates or a .15 lb/mmBtu performance standard (a significant increase in stringency). It is arguable how such a wide range provides any guidance to EPA on implementing regional controls. Essentially, the range gives EPA a free hand in deciding on appropriate tonnage levels.

OTAG did recommend that any statewide tonnage levels proposed by EPA be revised if additional subregional modeling or air quality analyses justified it. Likewise, OTAG recommended that EPA consider any submitted comments and subregional modeling with respect to proposed statewide tonnage levels prior to finalizing SIP calls.

Non-Utility Stationary Source NO_x Control. OTAG’s recommendations for non-utility stationary sources mirrored those for the utility sources. Dividing non-utility facilities into medium and large sources, OTAG recommended that large sources be controlled in proportion to how much utility sources are controlled. If utility sources are required to reduce 55%, large non-utility sources should be required to reduce 55%. This parallel requirement weakens as the utility reductions increase; for an 85% utility source reduction, OTAG recommends only a 70% reduction for large non-utility sources.

Requirements for medium sources are also based on utility source requirement, but considerably less stringent. For 55%-65% utility reductions, no medium non-utility control is recommended. For 75%-85% utility reduction, OTAG recommends that medium non-utility sources be required to install reasonably available control technology (RACT), a determination made by the states based on EPA guidance. As with the utility control recommendations, OTAG urges flexibility if additional modeling and air analyses warrant it.

Federal Emission Control Measures. The federal government has a major role in assisting states achieve compliance, particularly with respect to new stationary source control and mobile source control. OTAG outlines nine specific areas where the federal government should develop, adopt and implement stringent national NO_x and/or VOC control requirements to assist the OTAG region in achieving compliance with the ozone

NAAQS. These areas include architectural and industrial maintenance coatings, consumer and commercial products, autobody refinishing, reformulated gasoline, small engines, heavy duty highway engines, heavy duty non-road diesel engines, and locomotive engines.

OTAG also recommended EPA act on some fuel related items. These recommendations included EPA (1) adopting a rule on an appropriate fuel sulfur standard to improve long-term performance of emission control devices, (2) evaluating emission benefits and other effects of cetane adjustments on current diesel engines and adopting standards as appropriate, and (3) considering and potentially adopting new diesel fuel standards by the year 2004 through existing deliberative processes.

Finally, OTAG supported and encouraged adoption of a National Low Emission Vehicle Program.

Specific State Actions. Among the provisions OTAG recommended are that “fine grid” states consider adopting include enhanced inspection and maintenance (I&M) program in urban areas with populations greater than 500,000, and the continued use of reformulated gasoline (RFG) in both mandated and opt-in areas.

Trading Program. Part of the controversy over utility source control involved proposed market-based approaches to implementing such controls. OTAG did considerable work on market mechanisms and found several benefits to these implementation approaches, including: (1) lower compliance costs, (2) incentive for early reductions, (3) incentive for over-control of sources, (4) incentive for innovation, and (5) administrative flexibility.

However, OTAG was unable to agree on a basic structure for a market mechanism. Some states, particularly those in the northeast, advocated a “cap and trade” program. A cap and trade program places a total emission limit (i.e., cap), expressed in tons of pollutants, on specific emission sources in an area. The allowable amount of pollution is then allocated to these sources according to an agreed upon formula. Sources that emit less pollution than their allocation may trade the unused portion of their allocation to sources that exceed their allocation, or bank those unused pollution “credits” for use in a future year. A system like this has been successfully implemented to reduce sulfur dioxide emissions under title IV of the CAA and is being implemented in the Ozone Transport Region (OTR) to reduce NO_x emissions.

Under a cap and trade system, emissions are not permitted to increase over time. Thus, as production increases, new emissions from either new sources (or expanded production at existing sources) has to be offset with increased controls at existing sources. Industry groups have objected to this increasing limitation on their emissions and argued for an alternative that controls the rate of pollution emitted, but not the total amount emitted (i.e., no cap). Under a “rate only” approach, a source would emit as much of a pollutant as it wished, as long as it did not emit them at a rate greater than stipulated under the rate only approach. If a source emitted at below the stipulated rate, it would receive credits amounting the difference between its actual rate and the stipulated rate times its production for a given year. It could trade or bank the resulting credits. If a source exceeded the rate, it could purchase emission credits for the excess amount (based on its total production for a year) from a source that emitted pollution at a rate lower than

that agreed upon for that year. Currently, no trading programs are based on this approach.

As was the case with the utility control recommendations, OTAG's final recommendation with respect to a trading program encompasses both points of view. The cap and trade program, called "Track 1," and the rate only program, called "Track 2," are both identified by OTAG as options for states to adopt in implementing utility (and possibly other) control measures. OTAG acknowledged several uncertainties with respect to this recommendation including (1) the need for further work on rate only approaches to implement them with same level of confidence and certainty as the cap and trade system; and (2) how any "cross-track" trading could occur between cap and trade states and rate only states. OTAG did note that EPA would have an integral part in overseeing the implementation and integrity of these approaches.

For its part, OTAG recommends a joint state/EPA workgroup address the issues of implementation of Track 1 and Track 2, along with identifying key design features that states could select in developing a NO_x trading program. OTAG believes its work in this area provides a sound basis for the workgroup's task. In addition OTAG suggested the workgroup address other concerns with respect to modeling, market systems, and local control requirements.

Conclusions

Ozone transport is a complex phenomenon with potential winners and losers. With major stakes involved, it is not surprising that some characterize OTAG's final recommendations as vague and ambiguous, where others see needed flexibility. In any event, OTAG's work assessing ozone transport moves the debate forward and clarifies an issue made more important because of the new 8-hour standard.

OTAG does specify some specific approaches to the problem, particularly with respect to mobile sources and fuel issues. However, with respect to utility control, OTAG leaves open the choice of implementation approaches (such as cap and trade or rate only) and appropriate control levels (such as 0.15 lb./mmBtu for NO_x). Overall, OTAG appears to sanction flexibility, both for the states and for EPA in deciding on how to respond to the ozone transport issue, and how to make necessary reductions.

The White House memorandum outlining the Administration's approach to implementing the new ozone standard states that EPA will propose a rule for the OTAG region in September 1997. At that time, EPA's interpretation of OTAG's recommendations will be published, with a final rule scheduled for September, 1998. How that process proceeds may reveal the true achievement of OTAG and the future of such cooperative approaches.

CRS Report for Congress

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Air Quality Standards: EPA's Final Ozone and Particulate Matter Standards

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Summary

On July 18, 1997, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards for ozone and particulate matter.¹ The new standards, chosen to provide additional health protection, generated controversy. They will require further pollution reductions, but projections of impacts on specific areas are speculative because implementation is several years off. While many in Congress criticized the new standards, no bill nor rider to block them has been considered; however, the Transportation Equity Act for the 21st Century (P.L. 105-178) was amended (Title VI) to specify deadlines for designating nonattainment, require federal funding of monitoring for the new particulate standard, and coordinate a regional haze rule with the new particulate standard. Court challenges are also being mounted.

Background

Under the Clean Air Act (CAA), EPA sets national ambient air quality standards (NAAQS) for pollutants that are emitted from numerous sources and that endanger public health. NAAQS are set solely on the basis of protecting health (costs and feasibility are taken into account in *implementing* NAAQS, a process that is primarily a state responsibility).

The Act requires EPA to review the NAAQS every 5 years, to take into account new scientific information.² On the basis of the most recent of these reviews for ozone and particulate matter, EPA revised the ozone standard and the existing particulate standard,

¹Published in the *Federal Register* on July 18 (62 FR 38652-38896), the standards became effective September 16, 1997. Copies of the documents, including related rules and a discussion of implementation, are available at: <http://ttnwww.rtpnc.epa.gov/naaqsfin/index.htm>; see CRS Report 97-8, *Air Quality: Background Analysis of EPA's 1997 Ozone and Particulate Matter Standards*.

² See CRS Report 97-722, *Air Quality Standards: the Decisionmaking Process*.

which regulates “coarse” particles up to 10 microns in diameter (PM_{10}), and issued a new standard for “fine” particulates, those 2.5 microns in diameter or smaller ($PM_{2.5}$).³

The Final Standards

As revised, the ozone and PM standards are as follows:

- **OZONE:** the new ozone standard is 0.08 parts per million measured over 8 hours, with compliance determined by averaging over 3 years the annual fourth-highest daily maximum at an ambient air quality monitoring site.
- **PM_{10} :** the PM_{10} standard remains at an annual maximum concentration of 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and a 24-hour concentration of 150 $\mu\text{g}/\text{m}^3$; the measurement statistic for the latter is revised to be based on the 99th percentile of 24-hour PM_{10} concentrations at a monitoring station.
- **$PM_{2.5}$:** the new $PM_{2.5}$ standard is set at an annual maximum concentration of 15 $\mu\text{g}/\text{m}^3$ based on the 3-year average of annual arithmetic mean $PM_{2.5}$ concentrations from one or more community-oriented monitors; and a 24-hour concentration of 65 $\mu\text{g}/\text{m}^3$, based on the 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations at a population-oriented monitoring station.

In most areas of the country, the revised ozone standard is more stringent than what the previous standard required; the PM_{10} standard is somewhat less stringent than the former standard (because of the change in the statistical measure of compliance); and the new $PM_{2.5}$ standard will likely require controls in some areas with elevated levels of sulfur oxides, nitrogen oxides, and/or organic fine particles.

While the CAA requires NAAQS to be set without regard for costs, EPA prepared a Regulatory Impact Analysis (RIA)⁴ in compliance with Executive Order 12866. Despite many uncertainties described in the RIA, EPA projects that the annual monetized benefits in 2010 of partial attainment of the ozone standard will at best equal costs (and may be less), but that the benefits of the $PM_{2.5}$ standard will exceed costs 2 to 5 times.

Implementation

The impact of these new standards will be determined first by designations of nonattainment, which will trigger preparation of State Implementation Plans (SIP), and second by the air pollution controls contained in each SIP. The CAA allows areas 10 years from the date of nonattainment designation to meet a NAAQS (with 2 years of extensions possible). Under Title VI of the Transportation Equity Act for the 21st Century

³The two sizes represent distinct pollutants: PM_{10} consists largely of dust-like particles, such as fly ash, while $PM_{2.5}$ typically forms from gaseous precursors, including sulfur oxides, nitrogen oxides, and volatile organic compounds. Control regimens likewise differ.

⁴EPA, *Regulatory Impact Analyses for the Particulate Matter and Ozone National Ambient Air Quality Standards and Proposed Regional Haze Rule* (1997), accessible at <http://ttnwww.rtpnc.epa.gov/naaqsfin/ria.htm>.

(TEA 21), enacted June 9, 1998, Governors are required to submit designations of the new ozone nonattainment areas by July 18, 1999, and EPA is required to promulgate final designations by July 18, 2000. This would place the attainment deadline for ozone in July 2010, with a possible 2 years of extensions. The PM_{2.5} deadlines will occur later. TEA 21 requires designation of PM_{2.5} nonattainment areas no later than December 31, 2005. This would place the attainment deadline for PM_{2.5} at December 31, 2015, with extensions possible to the end of 2017.

Because we don't yet know which areas will be designated nonattainment, the location and magnitude of impacts for both the new ozone and PM_{2.5} standards are necessarily speculative. This suggests that projections of nonattainment areas (including EPA's) based on historical data should be viewed with caution. Nonattainment designations for ozone will be made in July 2000 based on the most recently available 3-year set of data. About 100 counties are currently out of compliance with the old 1-hour standard; under the new standard EPA estimates about 280 may be out of compliance.

Given the time necessary to set up a proper monitoring system for the new PM_{2.5} standard, it will be at least 2002 (and more likely later) before designations of these nonattainment areas can begin. During this time other provisions of the CAA that reduce PM_{2.5} will be implemented, including Phase 2 of the acid precipitation control program and various nitrogen oxides control strategies. Whether an area will be in attainment with the new PM_{2.5} standard will depend partly on the implementation of these other CAA provisions. Most current analyses of the impact of the PM_{2.5} standard use modified historic PM₁₀ data; the accuracy of such analyses is problematic. Projecting from current data, EPA estimates that about 150 counties will fail to meet the new PM_{2.5} standard, compared to 41 failing to meet the old PM₁₀ standard.

For PM₁₀, the impact of the new standards is less speculative, since data from an established monitoring network can be used for determining attainment. A number of the 41 areas currently designated nonattainment for PM₁₀ are expected to meet the revised standard.

EPA, sensitive to the potential impacts of the new standards, contends that implementation will be flexible. According to the agency, its implementation plan will give "states, local governments and business the new flexibility they'll need to meet protective public health standards in a reasonable, cost-effective way."⁵ For ozone, EPA proposes to rely on regional, market-oriented implementation strategies (such as those recommended by the Ozone Transport Assessment Group (OTAG))⁶ to achieve attainment at least cost. As stated by EPA:

The Ozone Implementation Package will use a regional, state-sponsored plan to address the long-distance transport of ozone. As that plan's reductions take effect, the vast majority of areas that do not currently meet the new ozone standard will be able

⁵This and the following quotations on implementation are from EPA, FACT SHEET, *Implementation of the Standards* (June 25, 1997), accessible at: <http://ttnwww.rtpnc.epa.gov/naaqsfin/implem.htm>

⁶See CRS Report 97-744, *Air Quality and the New Ozone NAAQS: The OTAG Process*. EPA proposed regulations implementing the OTAG recommendations October 10, 1997.

to do so without any additional new local pollution controls or measures. In order to help these areas avoid burdensome measures associated with non-compliance, EPA will create a new "transitional" classification. These areas would not have to comply fully with the new ozone standard by achieving local pollution controls until at least 2004, with no compliance determination required until at least 2007.

For $PM_{2.5}$, EPA appears to be focusing on providing ample time for areas to develop cost-effective control strategies, along with committing the Agency to a timely (i.e., five-year) review of the new standard to avoid implementing a too stringent — or too lax — standard. As stated by EPA:

The Particulate Matter Implementation Package will give businesses ample time to find the most cost-effective pollution controls. In addition, EPA will complete another full scientific review of the health effects of fine particulates before any "non-attainment" designations are made or local controls mandated. EPA will allow five years to gather and analyze necessary data, and then use its discretion under the Clean Air Act to allow another three years for areas that are not in compliance to submit air quality plans on how they will meet the new standard. Following another year and a half for review of the plans, it will be several more years before many areas will actually have to comply with the new standard.

Responses to the New Standards

Even before EPA formally proposed the new standards in November 1996, stakeholders were marshaling evidence and arguments for their preferred outcomes — in general, business and industry oppose more stringent standards, and public health and environmental interest groups seek more stringent ones. During the public comment period on the proposed standards, EPA received over 50,000 comments. Congress, too, has been active: numerous hearings addressed the proposed standards, and Members wrote letters and forwarded comments to the Administrator and the President.

While the final decision was welcomed by most public health and environmental interests, business and industry expressed strong disappointment at the stringency of the new ozone and $PM_{2.5}$ NAAQS. Many state and local governments (especially those in the Midwest) objected to the new rules, as well, but other states and localities (primarily in the Northeast) have been supportive.

Proponents of the new standards assert:

- scientific evidence of adverse health effects from ozone and PM air pollution is compelling;
- more stringent standards ensure progress toward meeting the CAA requirement to protect the public health with an adequate margin of safety; they cite EPA estimates that 15,000 premature deaths will be avoided per year (in the case of the $PM_{2.5}$ standard), along with the avoidance of other adverse health effects;
- welfare benefits such as crop yields and forest health will be enhanced; and
- EPA analysis indicates a highly favorable cost-benefit ratio for the $PM_{2.5}$ standard.

Critics of EPA's action contend:

- the standards are not justified by the scientific evidence;

- the costs and adverse impacts on regions and sectors of the economy are excessive; they cite EPA's estimate that the cost-benefit ratio is negative for the new ozone standard;
- EPA failed to comply with certain regulatory impact assessment procedures required by the Small Business Regulatory Enforcement Fairness Act, the Regulatory Flexibility Act, and the Unfunded Mandates Reform Act; and
- the new standards will disrupt the process for bringing into compliance areas out of attainment with the previous standards, as spelled out in the 1990 CAA Amendments.

On July 18, 1997, in the U.S. Court of Appeals for the D.C. Circuit, business, fuel retailer, and trucking interests filed suit challenging the final standards. At last count, 38 interest groups were contesting the standards substantively or procedurally; or challenging EPA's implementation process.

Congressional Response

Congress had a number of legislative options for responding to EPA's final standards, including review of the regulations under a new congressional review process (5 U.S.C. 801-808), use of the appropriations process, amendments to the Clean Air Act or to other moving legislation, or a free-standing bill focused on the NAAQS decision.

For a time, opponents of the new rules organized behind H.R. 1984, a free-standing bill introduced by Representatives Klink, Boucher, and Upton and cosponsored by both the Chairman and ranking minority member of the House Commerce Committee. The bill had 199 cosponsors as of April 1998. Companion legislation, S. 1084, was introduced by Senator Inhofe. Both bills would have provided a 4-year moratorium on the promulgation of new or revised ozone and particulate standards, and would have required EPA to complete another review of the old standards, deciding whether to retain them, revise them, or promulgate new standards within 4 - 5 years of enactment.

Markup of these bills was not scheduled, however, in part because they appeared to lack sufficient support to overcome a likely Presidential veto. This apparent stalemate moved Senator Inhofe to offer compromise language in the form of an amendment (S.Amdt. 1687) to the transportation reauthorization bill (S. 1173). The amendment was approved by voice vote March 4, 1998, after it was agreed to by EPA and the bipartisan leadership of the Senate Environment and Public Works Committee. The transportation bill passed the Senate March 12.

The House version of the bill (H.R. 2400) passed April 1, without provisions addressing the air quality standards. After some discussion, the conferees adopted the Senate amendment, with one additional provision delaying implementation of a proposed regional haze program, as Title VI of the bill. The conference report (H. Rept. 105-550) passed both the House and Senate May 22. President Clinton signed the bill (P.L. 105-178) June 9.

The Inhofe amendment addressed several issues. First, in promulgating the standards last July, EPA and the President announced an implementation schedule that was longer than that mandated under the Clean Air Act. Opponents of the standards have expressed

concern that court challenges might force EPA to disregard its intended schedule in favor of the speedier statutory requirements. The amendment prevents a court challenge on this point by codifying the announced implementation schedule, giving EPA until July 2000 to designate ozone nonattainment areas and December 2005 to designate PM_{2.5} areas.

Second, the new PM_{2.5} standard requires the establishment of a monitoring network in all 50 states. EPA has promised to fund these monitors. The amendment affirms EPA's stated intention to provide federal funding for the "establishment, purchase, operation and maintenance" of a PM_{2.5} monitoring network, and requires that the money come entirely through new federal funding, not reprogramming of other state grant funds.

Third, in response to concerns by farm groups that agricultural activities such as ploughing and agricultural burning will be targeted for PM_{2.5} regulation (which EPA denies),⁷ the amendment requires EPA to conduct a field study of the ability of the Federal Reference Method used in analyzing PM_{2.5} samples to differentiate types of PM_{2.5} particles, and requires a report to Congress within two years of enactment.

Fourth, as programs to meet EPA's proposed regional haze rule⁸ could overlap with PM_{2.5} controls, the amendment coordinates the schedule by which the two regulations would be implemented.

Finally, the amendment makes clear that none of its provisions is intended to affect pending litigation or to be interpreted as a ratification of the standards.

While passage of this amendment probably ends debate on the standards in this Congress, it leaves unresolved several issues raised by opponents, including the possibility that ozone nonattainment areas could be subject to two overlapping sets of requirements and questions regarding the legal authority for the exemption of "transitional" ozone nonattainment areas from numerous statutory requirements.

Conclusion

The 5-year review process of the ozone and PM NAAQS has been completed, with EPA having decided to tighten the ozone standard and to refocus the particulate standard toward "fine" particles (PM_{2.5}). Although Congress could still take additional steps, and the courts have yet to speak, debate on the standards for this Congress may have ended with passage of Title VI of the transportation bill, codifying EPA's announced deadlines. In Title VI and in the EPA appropriation for FY 1998, the Congress also clarified its intent that additional research be conducted and that EPA provide full funding to the states for a network of PM monitors. By fostering research and monitoring, Congress hopes to ensure that the next 5-year NAAQS review will be based on more robust scientific findings. Enhancing the scientific base could also inform any reauthorization of the Clean Air Act.

⁷For a further discussion of these issues, see CRS Report 97-670, *Agriculture and EPA's Proposed Air Quality Standards for Ozone and Particulates*.

⁸61 *Federal Register* 65764-65778 (December 13, 1996); see CRS Report 97-1010, *Regional Haze: EPA's Proposal to Improve Visibility in National Parks and Wilderness Areas*.

2 ENVIRO GROUPS: Op-Ed Connects Enviros, Trial Lawyers

The Sierra Club and the Assn. of Trial Lawyers of America have "remarkably similar" campaign contribution lists, according to an op-ed by David Ridenour, VP of the DC-based National Center for Public Policy Research, in the *Idaho Statesman*.

His review of Federal Election Commission reports shows that of the 26 Senate and House candidates who have received direct contributions from the Sierra Club between 1/97 and 9/98, 88% also receive ATLA contributions. And three Senate challengers endorsed by the Sierra Club -- Jay Nixon (D) running against Sen. Christopher "Kit" Bond (R-MO); Rep. Charles Schumer (D-NY) challenging Sen. Alfonse D'Amato (R-NY); and Michael Coles (D) challenging Sen. Paul Coverdale (R-GA), all received ATLA contributions.

Ridenour writes, "the two groups have several interests in common. ... Both use junk science as a means of winning public opinion and lawsuits."

There are about 500 environmental lawsuits at the federal level each year, according to Ridenour. "Litigation has become such a significant part of environmental policy ... that it is getting in the way of real environmental progress." Ridenour says the Sierra Club Legal Defense Fund "has profited handsomely" from this litigation, and that its political involvement "isn't just about advancing green policies, but making greenbacks" (*Idaho Statesman*, 9/23). ([Back to Contents](#))

► AIR AND WATER POLLUTION

3 SMOG: Utilities Predict Higher Rates, Power Shortages

Electric utilities in Kentucky, Indiana and several other Midwestern states "are certain of two things: Complying [with the US EPA's new nitrogen oxide restrictions] will cost billions of dollars, and consumers ultimately will foot the bill."

Columbus, OH-based American Electric Power estimates that it will spend \$1.6 billion on pollution control equipment to comply with the rules announced on 9/24, and it may consider switching from coal to cleaner-burning natural gas, according to spokesperson Jim See (*Greenwire*, 9/25) (Andrew Melnykovich, *Louisville Courier-Journal*, 9/25).

Lorie Kessler of Detroit Edison estimated modifications would cost her company \$400 million (Mastio/Mullinnix, *Detroit News*, 9/25). Mary Carpenter, spokesperson for Wisconsin Electric Power Co., said the cost of compliance with the mandate would be recovered through higher rates.

Power Outages Possible?

Utility officials in several states said the five-year implementation deadline "will require several power plants to be shut down at one time," which could lead to power outages. Lloyd Eagan, director of the Wisconsin Bureau of Air Management: "If [utilities] extend outages too long, they could run into a problem if there's a hot or early summer -- if there's not enough electricity to go around" (Alisa Lapolt, *AP/St. Paul Pioneer-Press*, 9/25).

Detroit Edison's Skiles Boyd said installation of selective catalytic reduction technology at a single plant would require an outage of about 20 months. Boyd: "You can't meet the 2003 deadline in all the Midwest and still supply the energy that will be demanded. There is not enough generation to meet that need" (Nigel Hunt, *Reuters/PlanetArk*, 9/28).

Midwest Governors May Fight Regulations

The regulations "drew the ire" of Indiana Gov. Frank O'Bannon (D), who "repeated industry concerns" that the compliance period is too short and could lead to power disruptions. O'Bannon spokesperson Cheryl Reed, said the governor may join with other Midwestern states to oppose the mandate in court, as well as lobby Congress and the

Clinton administration to rewrite the new rules (Doug Sword, *Indianapolis Star/News*, 9/25).

Robert Hodanbosi, chief of the Ohio air pollution control division, said the state preferred an alternative proposal by six Midwestern states that would have cut other sources of pollution and some power plant emissions. Ohio Gov. George Voinovich (R): "I'm very disappointed that the ... EPA has once again chosen a heavy-handed, punitive approach over sound science and reasonable regulation" (*Greenwire*, 6/26) (Edwards/Lowe, *Columbus Dispatch*, 9/25).

However, Tennessee Gov. Don Sundquist (R), "whose administration had blasted the proposal as tyrannical," is now backing the plan. Justin Wilson, the governor's top environmental adviser, said the EPA made adjustments to address the state's concerns (*Knoxville News-Sentinel*, 9/26).

Northeast States, Enviros Worried About Implementation

The New York Dept. of Environmental Conservation "lauded" the regulations but "said their effectiveness would depend largely on how the states implement the rules." DEC spokesperson Sam Thernstrom: "It is possible that some of the flexibility ... could allow Midwestern states to approach meeting the reductions in ways that will minimize the benefits to interstate air pollution" (Ronald Powers, *AP/Boston Globe*, 9/25). The Ozone Transport Commission is recommending that a "cooperative federal-state mechanism" be developed to monitor implementation (OTC release, 9/24).

Robert Varney, New Hampshire Environmental Services commissioner: "Any attempts to delay or replace [the rule] with a less stringent plan would place our state at an economic disadvantage compared with states with weaker environmental standards" (*AP/Boston Globe*, 9/25).

But William Tyndall, environmental services VP of Cinergy Corp., argued that Northeast states sought the tough NOx standards to raise Midwest energy costs, reducing the competitive advantage that comes with low energy costs. He also called the decision a "political victory" for Northeast governors who don't want to address the problem of auto emissions in their own region (Ben Kaufman, *Cincinnati Enquirer*, 9/25).

CLF Concerned That The Cuts Aren't Enough

The Boston-based Conservation Law Foundation which "expressed concern" that the new rule would not result in adequate power plant emission reductions in New England. It noted that New Hampshire, with the highest average utility smog emissions of any Northeastern state, is not required to reduce emissions at all. CLF attorney David Marshall: "[The] rule will not clean up smog in the Northeast, but it is a good start. We now need to ... clean up pollution in our own backyard as well" (CLF release, 9/24). ([Back to Contents](#))

4 SMOG II: NOx Rules -- How's It Playing?

The US EPA plan to cut nitrogen oxide emissions in the eastern US drew praise from several newspapers:

***New York Times*:** "[EPA Administrator Carol Browner's] ruling represents a triumph of science and common sense over a sustained lobbying campaign by the Midwestern governors and the coal-fired electric utilities that will bear most of the cost of the new program" (9/29).

***Baltimore Sun*:** "While Atlantic states have spent tens of millions of dollars to reduce unhealthy smog levels, they are foiled by coal-fired power plants to the west that spew a pall of pollution into eastbound air currents. ... Better air quality -- helping millions who suffer from respiratory problems -- depends on a common effort to take out the NOx" (9/29).

***Boston Globe* columnist Thomas Oliphant:** "A deep bow of respect is in order to Carol Browner, who ... showed, moreover, that a way of proceeding could be found that involved the states as partners and that harnessed new technologies and emission-control methods ... " (9/29).

Portland [ME] Press Herald: "The US EPA made the only credible choice it could with regard to air pollution produced in the Midwest and along the Atlantic seaboard" (9/26).

Charlotte Observer: "The onus [is] on the EPA to demonstrate in a convincing fashion how North Carolina's power plant emissions cause air quality problems for other regions. IF the EPA has clear evidence that power plants are the problem, then North Carolina has a responsibility to get cracking and fix it" (9/28). ([Back to Contents](#))

5 REFORMULATED GAS: EPA Issues Expanded RFG Rule

The US EPA last week issued a final rule modifying the reformulated fuels program to give states greater flexibility in complying with the federal ozone standard.

Under the new rule, states may add to their RFG programs areas which did not meet the federal ozone standard when the 1990 Clean Air Act amendments were passed, but which now are in attainment.

The "action provides states the flexibility to use RFG as an additional cost-effective option to help avoid future air quality problems in redesignated areas," the EPA says. Currently, areas in 12 states and the District of Columbia participate in the RFG program (EPA release, 9/25). ([Back to Contents](#))

6 MTBE: California Gov Vetoes Alternative Oxygenate Bill

California Gov. Pete Wilson (R-CA) yesterday vetoed legislation that would have enabled gasoline companies to use substitutes for MTBE in their fuel, reports the AP.

Critics say that regulations adopted in 1991 by the state Air Resources Board made MTBE the only oxygenate allowed in California gas. But Wilson said that the new bill, sponsored by state Assemblywoman Debra Bowen (D), was designed to promote ethanol at the expense of other oxygenates.

Wilson: "State law should not be used as a means to achieve market advantage, especially when the consequences will foul our air" ([AP/San Francisco Chronicle/Examiner](#) online, 9/28). ([Back to Contents](#))

7 DIESEL: Team Develops Cleaner, More Powerful Engine

Energy Secretary Bill Richardson last week announced a "major technological breakthrough that will enable diesel engines to operate in a cleaner and more efficient manner."

A partnership between scientists at the Argonne, IL federal scientific laboratory, General Motors' Electro-Motive Division and the Assn. of American Railroads was able to change fuel and oxygen levels and operating conditions to improve the diesel engine's internal combustion process and lower both hydrocarbon levels and nitrogen oxide emissions. The result both "boost[ed] engine power" and lowered smog-contributing emissions.

The two-year, \$2 million project is seeking additional funding "to build a fully integrated system for a full locomotive to see how the technique can be applied to trucks and automobiles." Richardson: "This is an excellent example of government-industry partnerships, and the results are the first of many we expect from this transportation technology center" (Agence France Press, 9/25). ([Back to Contents](#))

8 AG WASTE: CO Gov Plugs Initiative; Action In NC, AR, OK

Colorado Gov. Roy Romer (D) last week announced his support of a ballot initiative that would require the state to regulate corporate hog farms.

September 24, 1998

RECOMMENDED TELEPHONE CALL FOR THE CHIEF OF STAFF

TO: Governor Cecil H. Underwood (R-WV)

DATE: September 24, 1998

RECOMMENDED BY: Larry Stein

PURPOSE: To discuss today's release by the EPA of an ozone transport rule that will require the reduction of nitrogen oxide emissions in a 22-state region in the eastern United States at the request of Sen. Robert C. Byrd (D-WV).

BACKGROUND: Earlier today the EPA released a final rule that focuses on reducing the region to region transport of nitrogen oxide, a significant contributor to smog. These reductions, which are required under the Clean Air Act, are necessary for meeting the current health standard for smog and are the central component for meeting the Administration's health standards for smog announced by the President in July, 1997. A stringent rule on this point has been sought by the Northeastern states and the environmental community for some time, and both will be very pleased with today's announcement. Most of the South and Midwest have argued for less stringent requirements both in terms of emission reduction and timing, and some of those states will strongly oppose this announcement. Much of this debate has been reflected in Congress and the President has received letters and calls (mostly opposing a stringent rule) from Members on both sides of aisle.

Under the new rule, the EPA will provide 22 eastern states (including West Virginia) with reduction requirements for decreasing the nitrogen oxide emissions that are transported across states and create smog problems downwind. For states in the Midwest and South this will mean that they likely will have to impose controls on large sources of pollution like utilities that would not otherwise be required in this time frame.

The rule, which is based on extensive technical analysis and a wealth of input from states, groups, industry and other stakeholders, is designed to be both cost effective and allow states great flexibility in meeting their reduction requirements. For example, states will be allowed to achieve reductions from any source they choose and they will be encouraged to develop market-based emissions trading to lower costs. Additionally, states will have great flexibility in the implementation of the rule and up to a year to submit their clean air plans.

Governor Underwood led a group of governors from five other states (Alabama, Michigan, Ohio, Tennessee and Virginia) to develop an alternative proposal which generally requires less reductions, is more state-centered and provides states with a longer time period to come into compliance. Governor Underwood may also be concerned that the new rules will harm his state's coal producers by favor non-coalburning industries.

TOPICS OF DISCUSSION:

- Senator Byrd suggested you call to talk directly to the Governor about this rule, and to make clear that you understand his concern about the ability of his state to comply without adverse economic impact.
- The Administration believes strongly that this kind of control on transported ozone is vital to providing healthy air for citizens, particularly children, in their state and all of the eastern U.S., and you know the Governor shares that commitment.
- The White House has worked hard with EPA during this rulemaking process to ensure that the implementation of this rule will be as flexible and mindful of the circumstances of each state as is possible. **A particular example is the provision added since the publication of the proposed rule that will provide each state with a pool of emission credits to be used to address concerns about reliability for utilities and to encourage early action. These amount of these credits available corresponds to a one year delay of the date on which new controls must be in place.**
- I have talked with the CEQ and they indicate that the impact of this rule on coal consuming businesses is minimal.
- The White House has instructed EPA to work closely with each state to maximize flexibility and minimize

impact, and to give full consideration to the particular circumstances of each state within the requirements of the law. The White House is committed to making sure this is done.

CONTACT PERSON AND
TELEPHONE NUMBER(S): Governor Cecil H. Underwood
304-558-2000

DATE OF SUBMISSION: September 24, 1998

ACTION: _____

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

CC: Roger
(CEQ)

AUG 10 1998

August 6, 1998

The Honorable William J. Clinton
President
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

Dear Mr. President:

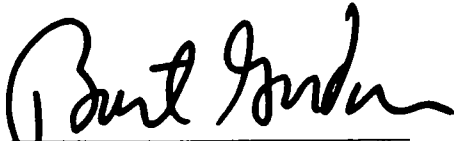
As the members of the Tennessee Congressional Delegation, we are writing to urge you to seek a compromise on the pending Environmental Protection Agency (EPA) proposal that would require an 85% reduction in nitrogen oxide (NOx) emissions in a 22-state region of the Eastern United States. We have serious concerns that a "one size fits all" approach could have significant implications for the environment, energy use, and the economy of our state.

As you may know, 13 Governors from the Southeast and the Midwest have offered alternative strategies that would achieve air quality standards at lower costs and avoid disruptions in electricity supply. Though the proposals contain some different elements, each one advocates the same basic control levels and cost-effective approach. These proposals ensure that the states come into compliance with the eight hour air quality standards in an economical fashion, allow the states to maintain their traditional role in implementing the Clean Air Act, and maintain the availability of a reliable electric power system. The Governors' proposals represent a major milestone in regional cooperation, that we believe should be recognized and embraced as EPA works to develop a fair and effective plan that meets our environmental and economic needs.

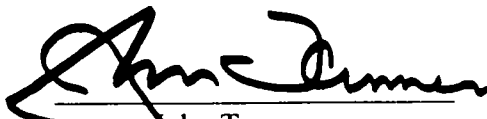
The Governors' proposals are based on careful air quality modeling assessments and economic analyses performed by various state environmental agencies. Further, their strategies are similar in design and effect to the reduction plans already developed by the electric utilities, as well as other industry sectors. In fact, just last week, the Tennessee Valley Authority (TVA) announced plans to spend \$500 million over the next 5 years to reduce their NOx emissions by 75% in the region they serve, which includes our home of Tennessee. We believe the personal attention and commitment given by the Governors should lead to environmental improvements, health benefits to our citizens, and still allow for continued economic growth.

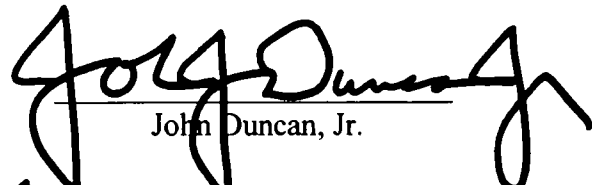
Mr. President, we believe the proposals made by the states embody the same desired end result as EPA intended -- a safer, cleaner environment for our children. We encourage you to carefully consider these proposals as you move towards a final EPA rule, and stand ready to work with you on this issue.

Sincerely,

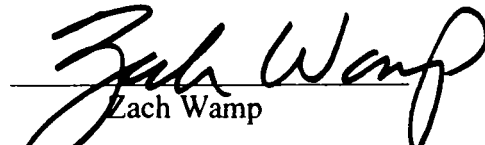

Bart Gordon

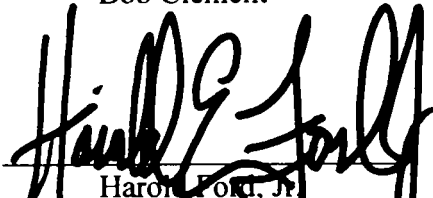

Ed Bryant


John Tanner

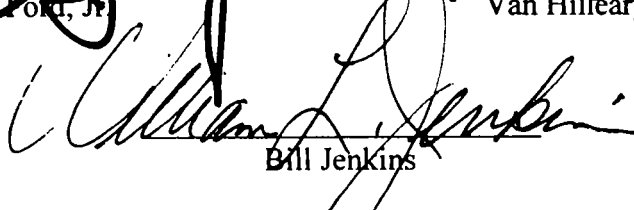

John Duncan, Jr.


Bob Clement


Zach Wamp


Harold Ford, Jr.


Van Hilleary


Bill Jenkins

Congress of the United States

Washington, DC 20515

RECEIVED
WHITE HOUSE MAIL SECTION

1998 SEP -1 PM 2: 57

August 17, 1998

President William J. Clinton
1600 Pennsylvania Ave., N.W.
Washington, DC 20500-0006

SEP 16 1998

Dear Mr. President:

We are writing to urge your personal involvement in working out a compromise on the pending Environmental Protection Agency (EPA) ozone regulation that would require major reductions in nitrogen oxide (NOx) emissions in a 22-state region of the eastern United States.

As you may know, 13 Governors have proposed alternative strategies to EPA's proposal that would achieve air quality standards at lower costs and avoid disruptions in electricity supply. The plans advocated by these states contain different elements but have the same basic approaches. The state proposals represent a major milestone in regional cooperation by committing utilities and other industry sectors in most of these states to substantial early NOx reductions that will result in sizable air quality improvements. We believe the White House should recognize this spirit of cooperation and work with the Governors to develop a fair and effective plan that meets the environmental and economic needs of the affected region.

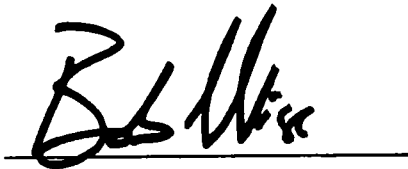
The Governors' proposals are based on careful air quality modeling assessments and economic analyses performed by the various state environmental agencies. We believe that the Governors' personal involvement demonstrates a commitment that can and should lead to an outcome that improves the environment, continues the unprecedented economic growth that we have enjoyed over the last six years and improves the health of our citizens.

Strong arguments have been advanced that the EPA proposal exceeds the legal authority provided to it by the Clean Air Act. Contentious litigation is an inevitable outcome if the EPA proposal is not modified. As Indiana Governor Frank O'Bannon stated in his June 25 letter to you:

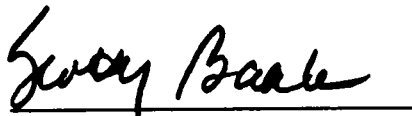
"We are very concerned that wholesale adoption of EPA's original proposal will result in unnecessary social and economic costs, undercut state efforts, fracture a cooperative approach, and engender lawsuits and delays, not clean air."

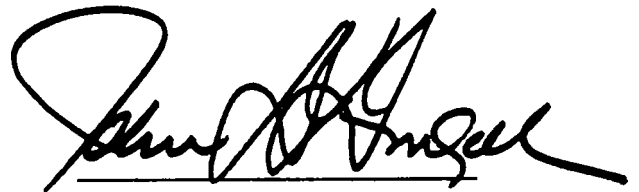
Mr. President, we stand ready to work with you on this issue and arrive at an outcome that is in the best interests of our nation.

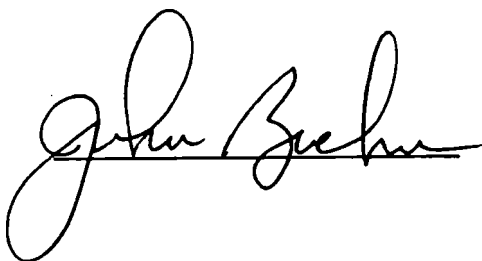
Sincerely,

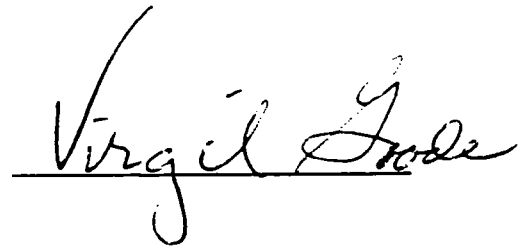












Rick Roeder

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Floyd Spivey

Sonny Callahan

Jim Barcia

Allen Pickett

Sam Banning

Pro (17-011)

Robert Hobson

Alan Malloha

Arny Blue

Paul J. Jellison

John Paul

Anne M. Northrup

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ged Strickland

James E Chyben

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Ed Whiggin

of Am Emerson

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Phil D. Ory

Ira M. Clayton

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WISE
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GOODE

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BOUCHER
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BURR
JONES
EVERETT
BATEMAN
PORTMAN

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CLEMENT
JENKINS

ETHERIDGE

PAGE 6

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United States Senate

COMMITTEE ON APPROPRIATIONS
WASHINGTON, DC 20510-6025

June 15, 1998

The Honorable William J. Clinton
President
United States of America
The White House
Washington, D.C. 20500

Dear Mr. President:

I am writing to express our concern about the November 7, 1997, proposal by the Environmental Protection Agency (EPA) regarding nitrogen oxide (NOx) emissions, and the transport of ozone. This proposed revision to State Implementation Plans calls for a uniform reduction to 0.15 lb./mmBTU across 22 states, which is equivalent to a reduction by utility power plants of 85 percent in that region. This reflects the most extreme and stringent option recommended by the 37 state group that has been studying this issue, the Ozone Transport Assessment Group (OTAG). Although the EPA has left it to the states to determine which emission sources will be selected to meet the 0.15 lb. standard, the EPA is well aware that the proposed reduction is so severe that the Midwestern states will have little option but to target utilities with the suggested 85-percent reduction, even while Eastern states have not yet effectively controlled their single greatest contributor to ozone, which is not Midwestern utilities, but rather their own automobiles. As a result of this kind of action, West Virginia, could face an overall NOx reduction of 44 percent, with a 72-percent corresponding reduction for our utilities.

I am concerned that even while the EPA has endorsed the most stringent of the possible options suggested by OTAG, the EPA has rejected other OTAG proposals that are aimed at ensuring that the final rule is based upon sound science, and take into consideration the concerns of individual states. I urge the EPA to reconsider this approach, particularly in light of the divisive and counter-productive battle over the ozone and particulate matter rule. As I previously stated in the letter of November 17, 1997, to EPA Administrator Carol Browner, I am surprised that the EPA has again chosen to pursue a heavy-handed and arbitrary approach toward air regulations.

The Honorable William Jefferson Clinton

June 15, 1998

Page 2

The current "top-down" approach of the EPA, by which it imposes the most stringent standards possible upon an entire 22-state region, ignores differences between the states, is neither fair nor equitable, will impose huge costs upon the states, does not allow for additional modeling, and undermines support for the Clean Air Act. Finally, the EPA assumes that there will be a system established to trade NOx allowances among the states that will lower the costs associated with the rule; however, this is unlikely to work effectively. The NOx controls proposed by the EPA are so severe, and compliance will be so expensive, that there will be very little incentive to reduce below mandated levels and create "surplus" credits. Without such credits, there will be nothing to trade.

Recently, several alternative approaches have been suggested by a group of ten Midwestern and Appalachian governors, led by Governor Cecil Underwood of West Virginia, as well as by a large group of utilities that have formed the Alliance for Constructive Air Policy (ACAP). These proposals are based upon the recommendation of OTAG that additional subregional modeling is needed to better define ozone transport patterns in the Eastern United States, and that a range of emission-reduction levels be implemented, tailored to the needs of individual states. These proposals were developed by discussing the issue with the affected parties, and by building a consensus that will both reduce the levels of NOx emissions, and maintain support for clean air standards.

The Governors have indicated that they will propose an alternative to the EPA plan by August 1998. The utilities have, in the interim, submitted a proposal that would improve air quality by imposing initial NOx reductions on utilities of 55 percent from 1990 levels, or a reduction in the NOx emission rate to 0.35 lb./mmBTU, whichever is less stringent, to be completed by 2004. Additional subregional modeling would then be done, in accordance with the OTAG recommendations. A second round of utility NOx reductions could then follow, based upon the results of the modeling.

West Virginians are proud of their record with regard to clean air, as we are now in compliance for ozone. I consider the health of our citizens an important matter, including the area of air quality. Despite this record, the EPA proposes that West Virginia reduce its overall NOx emissions by an astounding 44 percent. Such a huge and dramatic shift in policy — from compliance to gross under-compliance — cannot be based upon either sound science or any attempt to design a policy based upon

The Honorable William Jefferson Clinton

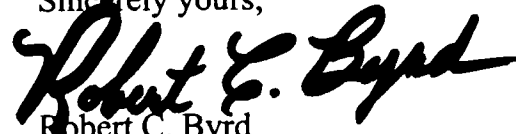
June 15, 1998

Page 3

discussions with the affected parties. Furthermore, this policy may not even result in meaningful reductions in ozone levels in the New England states. I urge the EPA to immediately begin serious discussions with Midwestern states and utilities in an attempt to design a policy that reduces NOx emissions, is also based on sound science, and is cost-effective.

With kind regards, I am

Sincerely yours,



Robert C. Byrd

RCB:mmj

BRIAN P. BILBRAY
45TH DISTRICT, CALIFORNIA

COMMERCE COMMITTEE

SUBCOMMITTEE ON
HEALTH AND ENVIRONMENT

SUBCOMMITTEE ON
COMMERCE, TRADE, AND
HAZARDOUS MATERIALS



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

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INTERNET:

E-mail:
bbilbray@hr.house.gov

World Wide Web:
<http://www.house.gov/bilbray/>

TO: LARRY STEIN, ASSISTANT TO THE PERSONNEL

FAX NUMBER: 456-6230

FROM: CONGRESSMAN BRIAN BILBRAY

DATE: 4/1/98

SUBJECT: HR 8

NUMBER OF PAGES (INCLUDING COVER SHEET) 5

COMMENTS: ORIGINALS FOLLOWING BY MAIL -

PHONE: (202) 225-2040
FAX: (202) 225-2948

cc: Roger
Chuck

BRIAN P. BILBRAY
49TH DISTRICT, CALIFORNIA

COMMERCE COMMITTEE

SUBCOMMITTEE ON
HEALTH AND ENVIRONMENT

SUBCOMMITTEE ON
FINANCE AND HAZARDOUS
MATERIALS

SUBCOMMITTEE ON
OVERSIGHT AND
INVESTIGATIONS



Congress of the United States
House of Representatives
Washington, DC 20515
March 31, 1998

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The Honorable Carol Browner, Administrator
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

This letter is to inform you of my complete and total displeasure with your office on a matter of what I would have thought to be mutual interest, and which I have discussed with you directly and with your staff on a number of occasions. I am very sorry to be nearing the conclusion that EPA is more interested in political gameplaying than in actually working together to improve air quality along the U.S.-Mexico border.

As you are well aware, I have introduced bipartisan legislation (H.R. 3961 in the 104th Congress, and H.R. 8 in the 105th Congress) which would specifically target emissions from these transborder commuter vehicles by requiring enforcement of existing law. On November 18, 1997, the Subcommittee on Health and the Environment held a field hearing in San Diego on the topic of trans-border air pollution, with a specific focus on emissions from gross-polluting foreign commuter vehicles. EPA's Director of the Air Division for Region IX, David Howekamp, testified at this hearing that although he thought the goal of the bill was "laudatory", EPA did not have a position on the bill at that time.

On November 6, 1997, the United States Trade Representative, Charlene Barshefsky, wrote you a letter following a meeting she had with me. In this letter, she specifically asked you to review H.R. 8, and stated that her staff was also in the process of reviewing H.R. 8. I would assume that in the spirit of inter-agency cooperation, your office responded to her request. I would like to see any correspondence which may have been exchanged between your offices on this topic.

On October 1, 1997, you testified before the Commerce Committee on the implementation of the new NAAQS standards. During one of our exchanges in the question and answer period, I specifically addressed to you my concerns about the cross-border pollution issue. Earlier, on May 15, 1997, you testified before Committee on your views on the NAAQS issue. Here also, during one of our exchanges, you and I specifically referenced my interest in the problems which H.R. 8 would address. On a less formal note, I can think of a handful of occasions during the last two Congresses where you and I have discussed this issue more informally, and in which you have assured me of your interest in working with me on my bill to address this problem. In short, Ms. Administrator, you are well aware that this is an issue of high priority and importance to me.

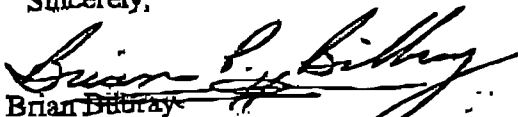
Yet I have nothing from you to show for my long-standing efforts to work with EPA on H.R. 8. Last week, EPA was informed that the Subcommittee on Health and the Environment intended to hold a markup of H.R. 8 on Tuesday, March 31. On March 26, John Dingell, the ranking minority member of the Commerce Committee, wrote to you asking for EPA's views on H.R. 8. On March 27, Mr. Dingell received a three-page response from Richard Wilson, EPA's Acting Assistant Administrator for Air and Radiation, which in a rather shrill fashion outlined EPA's previously unstated rationale for "opposing" H.R. 8. This letter characterized H.R. 8 as "punitive and hostile", and speculated that it would "very likely exacerbate border air pollution rather than reduce it." Let me here emphasize again that the bill would require the enforcement of existing law. The letter reads more like a political document, rather than a substantive legislative analysis; indeed, it provides little, if any, constructive criticism which I would have hoped to use to help refine the bill as it moves forward.

I find it a little unusual, to say the least, that after months, indeed years, of official silence on this bill (despite my repeated efforts to engage EPA and you specifically on this matter), EPA suddenly discovered that it did, after all, have an opinion about H.R. 8. For the record, this opinion came not after repeated requests from myself, not after a specific request from the USTR, and not after being invited to and testifying at a congressional field hearing on this specific topic. It came on a Friday afternoon, within a 24-hour period, at the request of the ranking minority member. I trust that this newly-established precedent for rapid response to Member requests will continue to be observed upon future requests of EPA by Members of the Committee.

I am greatly discouraged and extremely unhappy with this sequence of events, as it begs the question of whether EPA is serious about working in a productive, proactive manner to address known sources of pollution along the border. Having worked with the Mexican people to establish air quality programs in Mexico for years before EPA ever thought about an I/M programs for Juarez, I am well aware of the status of EPA's efforts in Mexico, and am frankly amazed that EPA would so readily sacrifice public health benefit for political reasons, by attacking this narrow bill which will clearly improve border air quality by enforcing existing law. I sincerely hope that the 3/27/98 letter was a product of simple haste and misinformation, or perhaps a policy "disconnect" within your agency. I cannot believe that this Administration would be so intractably opposed to improving air quality along the border by simply enforcing existing law.

As the Chairman of the Board of Directors for the San Diego Chapter of the American Lung Association testified at the November field hearing, "there isn't anything that we can do to that is too small to clean up the air". H.R. 8 is a means to do just that, in an effective and fair manner. I intend to continue to work with my colleagues on the Committee and with other interested parties to strengthen H.R. 8 and move it forward. I fully expect EPA to participate in this process and to provide timely input, when it is solicited, to myself or other Members of the Committee.

Sincerely,


Brian D. Bilirakis

Member of Congress

cc: The Honorable Michael Bilirakis
The Honorable Sherrod Brown
Charlene Barshevsky, U.S. Trade Representative
Larry Stein, Assistant to the President for Legislative Affairs ✓

BRIAN P. BILBRAY
49TH DISTRICT, CALIFORNIA

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

March 31, 1998

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The Honorable Charlene Barshevsky
Office of the United States Trade Representative
600 17th Street NW
Washington, D.C. 20508

Dear Ms. Barshevsky:

In the late fall of last year, you and I had occasion to discuss a matter of great importance to me and to my San Diego district, that of mobile source emissions along the border from gross-polluting Mexican vehicles which commute into the United States. As you know, I have introduced bipartisan legislation in the last two Congresses (currently H.R. 8) to address this issue. You were kind enough at that time to ask your staff to review the bill, and to request an inter-agency response on the bill from the EPA.

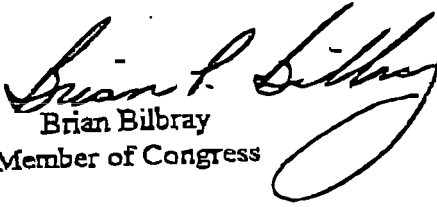
In a letter to EPA Administrator Carol Browner, dated November 6, 1997, you requested her review of H.R. 8, and stated that you had instructed your own staff to review the bill for "trade policy implications". In a similar letter to me, dated November 7, 1997, you stated "we will be in touch with your office in the near future to explore ways, in conjunction with EPA, to help improve our air pollution strategies along the growing border region." In the nearly five months which have elapsed since then, I have received no response from either yourself or Administrator Browner (attached for your information is a copy of a letter which I sent to Administrator Browner today on this same issue). I would appreciate being provided with any correspondence between EPA and USTR which may have occurred as a result of your request, and of any review or analysis of H.R. 8 by your own staff.

One of the most formidable obstacles faced by those of us who have worked to support expanded free trade is the all too commonly held perception that free trade comes at the expense of environmental and public health protections. A great deal of my time in public service, first as a local official and now as a Member of Congress, has been spent in trying to ensure that these two important principles do not conflict, or be exploited against the other, but instead operated in a symbiotic fashion. This is not only possible, it is absolutely essential, both as sound public policy and to demonstrate to the American public the economic and environmental benefit that can be derived as a result.

It is this rationale which underlies my interest in and commitment to H.R. 8, which provides an outstanding opportunity to show how the federal government can promote free trade while concurrently taking steps to protect the public health and strengthen environmental strategies. As I have told you previously, it is difficult to understand why the Administration would not seek to work together with me to implement this bill; after all, the fundamental premise of the bill is to require that the federal government to participate in enforcing existing law and environmental strategies. By showing a lack of commitment to this basic responsibility, this Administration runs the risk of further undermining the cause of free trade in border regions like San Diego, where environmental and public health concerns are of a very high priority and are closely linked to free trade in the eyes of the people I represent.

Thank you in advance for your cooperation and consideration. I look forward to your response.

Sincerely,


Brian Bilbray
Member of Congress

enclosure

cc: The Honorable Michael Bilirakis
The Honorable Sherrod Brown
Larry Stein, Assistant to the President for Legislative Affairs ✓

000000000000

03/09 '99 15:24 NO.484 02/04



Renewable Fuels Association
One Massachusetts Avenue, NW
Suite 820
Washington, DC 20001

202-289-3835
(F) 202-289-7519
<http://www.EthanolRFA.org>
email: cto@rfa.org

MEMORANDUM

cc:

To: John Podesta, White House Chief of Staff
From: Eric Vaughn
Date: March 9, 1999
Subject: March 17 PNGV Awards

KAIN
AME
STERN

I understand that Vice President Gore is anticipated to take part in the 1998 PNGV Medals Awards Ceremony, which is being held March 17 at 10:00 a.m. in the Indian Treaty Room. Secretary Daley and Secretary Richardson are also expected to attend.

The awards honor government/industry teams for their work in demonstrating, for the first time, the generation of electric power from fuel cells. We have a close working relationship with one of the awards recipients, Epyx Corporation of Cambridge, Massachusetts. Working with the Department of Energy, Epyx has designed a fuel cell reformer capable of converting ethanol on-board the vehicle into hydrogen, which is used to power a fuel cell and generate electricity.

While past public announcements concerning fuel cell and the Epyx reformer have focused on converting gasoline to hydrogen, ethanol provides higher efficiencies, fewer emissions and better performance than other fuel sources, including gasoline. Ethanol can and will play an important role in this new generation of highly efficient, cleaner-burning vehicles.

This is an exciting message waiting to be told, and the Awards Ceremony presents a perfect opportunity to get this word out to the automotive industry and the public. Such a positive message of new markets for ethanol will be well-received by the agricultural community which is suffering from low commodity prices, falling export markets and plunging domestic feed use of grain.

I have attached a set of talking points on ethanol's role in fuel cells. I greatly appreciate any assistance you can provide in working this message into the Vice President's comments. Please call me at 202/289-3835 if you have any questions or need further information.

Roger & Julie -
We should probably
make ethanol part of
our pitch at eq. mtg.

TRP

The Renewable Fuels Association is the national trade association for the domestic ethanol industry

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03/09 '99 15:25 NO.484 03/04



Renewable Fuels Association
One Massachusetts Avenue, NW
Suite 820
Washington, DC 20001

202-289-3833
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<http://www.EthanolRFA.org>
email: etohrfa@erols.com

March 9, 1999

The Honorable Albert Gore, Jr.
Vice President
Old Executive Office Building
Washington, DC 20501

Dear Vice President Gore:

As you prepare for the presentation of the 1998 PNGV Medals for excellence in demonstrating the generation of electric power from fuel cells on March 17, I am writing to make sure you are aware of an exciting opportunity that exists involving one of the award recipients and the fuel ethanol industry.

Epyx Corporation of Cambridge, Massachusetts, working with the U.S. Department of Energy, has designed a fuel cell reformer capable of converting ethanol on-board the vehicle into hydrogen, which is used to power a fuel cell and generate electricity. The result is a high-efficiency, low-emission power generation device that offers significant benefits to both consumers and the environment. According to Epyx CEO Jeff Bentley, ethanol provides higher efficiencies, fewer emissions and better performance than other fuel sources, including gasoline.

As we look to ethanol's future role in the transportation sector, new technological applications such as fuel cell vehicles offer exciting and promising new market opportunities for ethanol. Furthermore, with commodity prices collapsing, export markets falling, domestic feed use of grain plunging, and the farm economy in decline as a result, finding new markets for domestic uses of corn such as that provided by ethanol is increasingly important.

Mr. Vice President, we encourage you to share this exciting news as part of your remarks at the Awards Ceremony. By entering new markets such as fuel cells, ethanol can expand its positive contributions to air quality, energy security and rural economic development in the U.S.

Sincerely,

A handwritten signature in dark ink, appearing to read "Eric Vaughn", is written over the typed name.

Eric Vaughn
President

Enclosure

The Renewable Fuels Association is the national trade association for the domestic ethanol industry

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03/09 '99 15:25 NO.484 04/04

Talking Points on Ethanol's Use in Fuel Cell Reformer

- **Coupling a domestic, renewable energy source - ethanol - with highly efficiency, low emitting fuel cell technology will dramatically improve the next generation of vehicles.**
- **Ethanol is easily one of the most desirable hydrogen sources for fuel cell vehicles.**
- **Ethanol provides higher efficiencies, fewer emissions and better performance than other fuel sources, including gasoline, in the Epyx fuel cell reformer.**
- **Fuel cell vehicles are capable of achieving up to 80 miles per gallon with near zero exhaust emissions, improving air quality while reducing fossil energy use.**
- **As ethanol is marketed in nearly every state, the fuel infrastructure exists and could be easily tapped into to provide the fuel for fuel cell vehicles.**
- **Developing new uses and markets for ethanol will continue to reduce our reliance on imported energy and increase our national energy security.**
- **Nearly one-third of carbon dioxide emissions in the U.S. are generated by the production and use of fuel for transportation. Because ethanol is renewable, it is the only transportation fuel that helps reduce greenhouse gas emissions, by as much as 46 percent compared to conventional gasoline.**
- **Finding new markets for domestic uses of corn such as that provided by ethanol is increasingly important in today's agricultural economy, with commodity prices collapsing, export markets falling, domestic feed use of grain plunging, and the farm economy in decline as a result. Ethanol's use in fuel cells promises substantial rural economic development and growth.**



Rosina M. Bierbaum
03/24/99 11:54:28 AM

Record Type: Record

To: Duncan T. Moore/OSTP/EOP, Henry C. Kelly/OSTP/EOP, Linda Lance/CEQ/EOP
cc: Martha L. Wofford/WHCCTF/EOP, Roger S. Ballentine/WHO/EOP, Julie M. Anderson/WHCCTF/EOP,
Anthony J. Gibson/OSTP/EOP
Subject: UCS petition on CAFE stds

in case you haven't seen this.....



jball @ ucsusa.org
03/24/99 09:54:04 AM

Record Type: Record

To: UCS_LIST @ ucsusa.org
cc:
Subject: UCS Action Alert

March 23, 1999

*** UCS ACTION ALERT ***

TO: UCS Activists
FROM: Michelle Robinson, Senior Transportation Advocate and
Jim Ball, Climate Change Policy Coordinator
RE: Immediate Action on SUV's and Global Warming

ISSUE: Gas guzzling cars and light trucks are responsible for up to 25% of US carbon dioxide emissions, the major global warming pollutant. The more fuel vehicles use the more carbon dioxide is pumped into the atmosphere. Despite advances in technology, the fuel economy (miles per gallon) continues to decline in today's most popular vehicle models and fuel economy standards have not been updated by Congress or the Department of Transportation since the mid 1980s.

Senators Dianne Feinstein (D-CA), Slade Gorton (R-WA), and Richard Bryan (D-NV) are trying to stop this disturbing trend by advocating for improved fuel economy standards. They are sending a letter to President Clinton asking him to work with Congress to increase these standards. If a substantial number of Senators sign this letter to the President, it will be an impressive show of support and

demonstrate their willingness to stand up to the auto industry to provide the public the opportunity to choose cleaner, more fuel efficient cars.

ACTION: To update the standards, both the President and the Senate will have to stand firm in opposition to the "CAFE-freeze rider." Getting 35 Senators to sign this letter to the President is a critical first step.

Senators Feinstein, Bryan, and Gorton have sent their letter to other offices encouraging them to sign on. Please contact your Senator's office (see list below) through the Capitol Switchboard at (202) 224-3121 and ask her/him to sign the letter urging the President to increase CAFE standards. If the Senator's aide on transportation issues says that they have not received the letter or would like more information they should contact Kathy Reich in Senator Feinstein's office at (202) 224-3841.

BACKGROUND: In 1975, Congress passed mandatory miles per gallon standards also known as Corporate Average Fuel Economy or CAFE Standards. Currently, all passenger cars are required to average 27.5 miles per gallon and vehicles in the "light trucks" category (SUVs, minivans, and pickups) are supposed to average 20.5 miles per gallon. The lower standards for light trucks were based on the fact that many more of them were used for hauling and work purposes and they comprised less than 20% of the car market. Today, with these vehicles now over 50% of all cars sold - the auto industry is in danger of violating these standards with serious environmental consequences. Compared to an average 27.5 mpg car, whose tailpipe emits 38 tons of carbon dioxide over its lifetime, a 14 mpg SUV will emit 70 tons of carbon dioxide.

The current CAFE standards save more than three million barrels of oil per day, and save the owner of the average new car \$3,000 at the gas pump over the lifetime of the vehicle. Improved standards will reduce the air pollution that leads to global warming, smog, and lung disease; reduce our dependence on imported oil; and save consumers money.

The auto industry has succeeded in freezing CAFE standards by having allies in Congress insert language in the annual Department of Transportation (DOT) Appropriations Bill that keeps the agency from increasing the standards. This language referred to as the "CAFE -freeze rider" has been added to the appropriations bill for the last four years and is likely to be attached again this year.

THANK YOU FOR TAKING THE TIME TO DO THIS - IT MAY BE OUR BEST CHANCE THIS YEAR TO PUSH THE PRESIDENT AND CONGRESS FOR COMMON SENSE ACTION THAT WILL HELP CURB GLOBAL WARMING

WHILE BENEFITTING CONSUMERS.

If you have any questions or would like additional information contact Michelle Robinson at 617-547-5552. If you have a moment to let us know that you contacted your Senators, we would very much appreciate it - you can send a message to mrobinson@ucsusa.org.

You can find specific contact information for your Senator's office at: www.vote-smart.org

The following Senators have already signed the letter - please thank them for taking this responsible position:

CA D Barbara Boxer
NV D Richard Bryan
CT D Christopher J. Dodd
CA D Dianne Feinstein
WA R Slade Gorton
SC D Ernest Hollings
MA D John F. Kerry
NJ D Frank Lautenberg
NY D Daniel Patrick Moynihan
CT D Joseph Lieberman
RI D Jack Reed
NJ D Robert Torricelli
WA D Patty Murray
MN D Paul Wellstone

The following Senators should be contacted regarding signing the letter to the President:

HI D Daniel K. Akaka
MT D Max Baucus
DE D Joseph R. Biden, Jr.
NM D Jeff Bingaman
DE D Joseph Biden
CA D Barbara Boxer
CO R Ben Nighthorse Campbell
RI R John H. Chafee
GA D Max Cleland
ME R Susan M. Collins
ND D Kent Conrad
GA R Paul Coverdell
SD D Tom Daschle
NM R Pete Domenici
ND D Byron L. Dorgan
IL D Richard J. Durbin
NC D John Edwards
WI D Russell D. Feingold
FL D Bob Graham
IA R Charles Grassley
NH R Judd Gregg
IA D Tom Harkin

HI D Daniel K. Inouye
VT R James M. Jeffords
SD D Tim Johnson
NE D J. Robert Kerrey
WI D Herb Kohl
LA D Mary L. Landrieu
VT D Patrick J. Leahy
CT D Joseph I. Lieberman
AR D Blanche L. Lincoln
IN R Richard Lugar
FL R Connie Mack
AZ R John McCain
NV D Harry Reid
VA D Charles S. Robb
OR R Gordon Smith
WV D John D. Rockefeller, IV
DE R William Roth, Jr.
MD D Paul S. Sarbanes
NY D Charles E. Schumer
ME R Olympia J. Snowe
AL R Ted Stevens
VA R John Warner
OR D Ron Wyden

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GM concept vehicle gets 108 miles to a gallon



The new Precept concept vehicle runs on hydrogen in a solid state.

Detroit News staff and Bloomberg News

DETROIT - General Motors Corp. surprised the press Tuesday at the North American International Auto Show by driving out a new concept car which gets the equivalent 108 miles to the gallon.

The GM Precept FCEV, looks like GM's original the Precept concept, but instead of the 80 miles per gallon and diesel and electric power plant, the new concept substitutes a fuel cell for the diesel. The impressive car admits zero emissions. It will produce only water and heat. It runs on hydrogen in a solid state.

It's extremely aerodynamic with no door handles, no outside antenna or outside mirrors. Instead the car uses television cameras to give the driver a view of the side and rear.

It has electronic controls to open the doors.

The Precept has mesh seats to lighten the load. The body is made

Ford + GM Hybrids
from Detroit Auto
show.

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out of aluminum and titanium to reduce weight.

The five-passenger car can travel 500 miles before its hydrogen tanks need to be refueled, accelerate from zero to 60 mph in nine seconds and start in temperatures below zero Fahrenheit, GM said.

Automakers are under increasing pressure by government regulators to cut pollutant emissions and boost fuel economy. Fuel cells, which create heat and water as byproducts, burn cleaner than other types of power technology such as the internal combustion engine.

"Hydrogen will be the fuel of the future," said Larry Burns, GM's vice president of research and development.

Fuel cells now offer the most promise in meeting California's requirement that by 2003, at least 10 percent of each maker's vehicles sold in the U.S. state produce no air pollution. On Sunday, Ballard Power Systems Inc. of Vancouver, British Columbia, said it will build a \$350 million plant in two years to produce fuel cells for as many as 300,000 vehicles a year.

GM has bought fuel-cell prototypes from Ballard, though it developed the cells used in the Precept FCEV on its own.

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Ford's concept, the Prodigy, runs with both an internal-combustion engine and a battery-powered electric motor.

Ford Prodigy, GM Precept

January 13, 2000

Ford Motor Co. and General Motors Corp. are showing off concept cars equipped with hybrid power trains that achieve 70 to 80 miles per gallon.

RELATED CONTENT

More briefs on concept and production vehicles.

The so-called supercars were developed under a program called the Partnership for a New Generation of Vehicles (PNGV). The federal government provided some support and encouraged Ford, GM and Chrysler Corp. (now DaimlerChrysler AG) to collaborate on the basic science.

Ford's concept, the Prodigy, runs with both an internal-combustion engine and a battery-powered electric motor. It gets about 70 miles per gallon with gasoline and 80 miles with diesel fuel. The battery is recharged by an alternator and by capturing energy created while braking.

GM's concept is called the Precept and operates with a diesel engine and electric motor. Like the Prodigy, it uses a lot of light-weight plastics and aluminum and is very aerodynamic, with little cameras replacing rearview mirrors to help

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reduce drag.

GM actually is showing two Precepts. The second is powered by a fuel cell, an even more advanced system using hydrogen fuel to generate power for an electric motor. Emissions are virtually zero, with water being the primary byproduct.



GM Precept

Both Ford and GM say their supercars are roomy enough to serve as comfortable midsize family cars. DaimlerChrysler's high-mileage concept car is scheduled to be unveiled later this year.

Engineers generally agree that affordable fuel cells still are several years away. There's also the large question of a supply system for hydrogen.

The PNGV program is scheduled to run four more years, culminating with Ford, GM and DaimlerChrysler introducing preproduction cars in 2004.

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Ford unleashes electric car

No. 2 carmaker plays catch up with Japan with Think brand



Charles V. Tines / The Detroit News

Ford's Jacques Nasser shows off the new Think brand, an electric urban car with a 55-mile driving range. The line includes a golf cart-type vehicle and two bicycles.

By Dina ElBoghdady and Mark Truby / The Detroit News

DETROIT -- Ford Motor Co. offered a partial answer Monday to critics who say Detroit lags behind its Japanese rivals when it comes to putting cleaner vehicles on the road.

In a press conference at the North American International Auto Show, the world's No. 2 automaker said it was creating the Think brand to sell a range of small electric vehicles and bikes in the United States and elsewhere.

The new line initially will include an electric urban car with a 55-mile driving range, a golf cart-type electric vehicle with a top speed of 25 mph for use in resort areas or closed communities, and two bicycles that offer electric power at the flick of a switch.

Ford hopes to apply this technology to creating pollution-free fuel cell vehicles that are powered by electricity generated from the combination of hydrogen and oxygen.

The company also rolled out the Prodigy, a hybrid diesel and electric family sedan that gets 80 miles per gallon using research developed through a partnership between automakers and the federal government.

"Delivering mass production alternatives to the internal combustion

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"Delivering mass production alternatives to the internal combustion engine is a marathon, but I believe the finish line is finally coming into view," said Ford Chairman Bill Ford Jr. "But as fast as we are making it happen, it will be several years before we see significant amounts of vehicles powered by anything other than internal combustion engines."

Environmentalists say it shouldn't take that long given that the Japanese already plan to offer fuel-efficient hybrid vehicles in the U.S. market this year. The Toyota Prius, which gets 55 miles per gallon, is already sold in Japan and will be introduced to U.S. drivers later this year. The 70-mpg Honda Insight hybrid went on sale in U.S. showrooms in December.

"I'm tired of them (automakers) saying Americans won't buy these vehicles," said Lana Pollack, president of the Michigan Environmental Council. "Detroit introduces some clean technology in other countries. When will they bring it to this country?"

Domestic automakers dismiss the Japanese hybrids as marketing gimmicks that are too small for American tastes, too expensive to market on a mass scale, and too focused on fuel efficiency at a time when gas comes as cheap as bottled water in the United States.

* Environmental gains will come only if these vehicles can be sold in high volume at a reasonable cost, said Neil Ressler, Ford's vice-president for research and vehicle technology.

"We can go make one of those little, ultra-low volume, not-going-anywhere types of vehicles and we just decided not to do it," Ressler said. "We need to produce volumes high enough to make a big enough difference to the environment."

Toyota Motor Corp. officials say the only way to create volume is by putting these vehicles on the road, exposing consumers to the products, and learning from the experience. The company expects the size of the Prius will appeal to Americans because its somewhere between a Camry and a Corolla.

"Last time I checked, we sold over 220,000 Corollas and more than 250,000 Camrys," Amstock said. "We're going to learn from this experience and we're going to proliferate the technology to other platforms."

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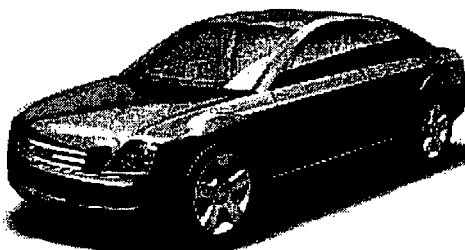
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New Ford hybrid electric car tops 70 mpg

DETROIT - The new Ford Prodigy is a hybrid electric family car prototype able to achieve more than 70 miles per gallon fuel economy. The lightweight, aerodynamic and fuel-efficient Prodigy - which will be unveiled at the North American International Auto Show - demonstrates Ford's progress in developing a hybrid electric family vehicle with mass appeal.



The new Ford Prodigy prototype is capable of achieving up to 70 miles per gallon.

"Prodigy goes a long way toward meeting our goal of an extremely fuel-efficient family vehicle," says Neil Ressler, vice-president - Research and Vehicle Technology and the company's chief technical officer. "The vehicle represents an interim stage between our P2000 research programs and our plans for an affordable, production hybrid."

The stylish, roomy Prodigy is designed to be stingy on fuel without sacrificing customer appeal in areas such as performance, affordability and roominess. The sedan is built on a lightweight platform, features a modern, aerodynamic design and is powered by a low storage requirement (LSR) hybrid electric powertrain.

The Ford Prodigy features an aerodynamic design that enhances vehicle aesthetics while reducing air resistance. Prodigy's 0.199 coefficient of drag - a measure of air resistance - is a 33-percent improvement compared with prior versions of the vehicle. Such a major improvement helps improve the vehicle's fuel economy by 4 miles per gallon.

To enhance the vehicle's aerodynamics, side-mounted cameras and onboard monitors are used in place of conventional side-view mirrors. The cameras provide a needed side view for the driver while not hindering air-flow around the vehicle.

Variable ride height, grille shutters and shields under the car also add to the vehicle's aerodynamic improvement.

Prodigy's platform is based on Ford's extensive lightweight materials research. Prodigy's total weight is 2,387 pounds, which is about 1,000 pounds lighter today's family sedan.

The significant weight reduction was achieved without sacrificing package efficiency. Prodigy is 30-percent lighter than today's Taurus sedan, but - thanks to creative packaging and lightweight materials - passenger space and luggage capacity are the same.

Prodigy's low storage requirement hybrid electric propulsion system uses an aluminum DIATA (Direct Injection, Aluminum Through Bolt Assembly) engine, starter/alternator, automatically shifted manual transmission and high-power battery.

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Ford Hybrid Electric Vehicle is on Horizon

DETROIT, Jan. 6, 1999 -- Ford Motor Company research engineers are developing an extremely fuel-efficient, product-feasible hybrid electric vehicle that is less complex and lighter than hybrids other automakers have demonstrated.

The hybrid powertrain is one of two being developed for Ford's P2000 Prodigy research vehicle, a five-passenger aluminum-bodied sedan that will be extremely light and aerodynamic.

Visitors to the 1999 North American International Auto Show in Detroit can preview Ford's progress in developing this customer-friendly hybrid vehicle at a dramatic new display of the vehicle's key components. The exhibit focuses on Ford's "low storage requirement" (LSR) hybrid, a candidate for the company's first mass production hybrid electric vehicle.

"The LSR hybrid is a high-value hybrid alternative," said Wayne Johnson, manager, Vehicle Electronic Systems. "It is simple, yet extremely fuel efficient, because we took a systems approach to optimize fuel economy.

"The LSR hybrid's total package -- DIATA engine, starter/alternator, automatically shifted manual transmission and high-power battery -- represents a promising approach for vehicles with breakthrough fuel efficiency."

The fuel economy of hybrid electric vehicles in city driving can be enhanced four ways:

- The fuel to the engine can be turned off when no propulsion power is needed (for example, when coasting down a hill or when stopped at a traffic light) and the engine restarted instantly on demand.
- The engine size can be decreased to improve efficiency, with electric power used to augment power demand when necessary.
- Regenerative braking can be used to recapture and re-use energy that otherwise would be lost to heat when braking. The alternator transforms this braking energy into electrical energy, which is stored in the battery for later use.
- Electric propulsion can be used with the engine off. (To maximize value, the LSR does not include this feature.)

Ford researchers determined that a hybrid with the first three capabilities could deliver fuel economy equivalent to a more complex and heavier hybrid with all four capabilities. In fact, they found that the LSR design required only very modest energy storage -- less than that of a conventional starter battery. Thus, LSR improves cost and reduces complexity.

Ford's LSR hybrid replaces the flywheel, starter and alternator with a single electric motor -- the starter/alternator -- packaged between the transmission and the engine.

In combination with a small, high-power nickel metal hydride battery and power electronics module, the starter/alternator can restart the engine in less than 0.2 second -- literally the blink of an eye.

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It can generate the power for the vehicle electronic systems with 85 percent efficiency compared with less than 60 percent for a conventional system. And it can assist the engine as the vehicle accelerates and support the brakes during deceleration, thus recharging the battery for later use.

The starter/alternator module regulates the flow of electricity between the battery and the starter/alternator. It determines the precise amount of energy exchange using a variety of inputs, including accelerator and brake pedals. Battery voltages range up to 400 volts, with a peak current rating of 200 amps for 20 seconds and a continuous power rating of 25 kilowatts.

The LSR hybrid relies on an automatically shifted manual transmission that combines the operating ease of an automatic transmission with the efficiency of a manual transmission and is 20 percent more efficient than a comparable automatic transmission.

In Auto Shift Manual mode, the transmission shifts gears without driver input, similar to an automatic transmission. In Select Shift Manual mode, the driver controls the shift timing, while the automatic controls handle the shifting and clutch actuation, which eliminates the clutch pedal.

The latest-generation HEV is equipped with Ford's state-of-the-art, aluminum DIATA engine. The 1.2-liter compression-ignition, direct-injection engine is lighter and 35 percent more efficient than conventional engines. The four-cylinder DIATA generates 55 kilowatts, or 74 horsepower, at 4,100 rpm.

"Applying an integrated systems approach to the development of the HEV powertrain allowed us to use advanced technology, including the DIATA, that provides improved fuel economy and reduced emissions," Johnson said. "Although an LSR hybrid is simpler, lighter, smaller and less costly than other hybrid vehicles, it can supply the performance that customers expect from a Ford."

The LSR hybrid is being developed as part of Ford's participation in the Partnership for a New Generation of Vehicles (PNGV), a collaboration among Ford, General Motors, DaimlerChrysler AG, the U.S. Department of Energy and others.

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