

Stagnant Politics, Dirty Air: Autos and the Environment



By Stan Luger

TWENTY-FIVE YEARS AFTER CONSUMER advocate Ralph Nader exposed American cars' built-in safety hazards, which needlessly kill tens of thousands of people each year, it is now clear that the automobile poses an even greater threat to the environment.

Cars are largely responsible for smog and air toxics, not to mention the nation's increasing dependence on foreign oil and the escalating traffic congestion clogging American cities. They are a major contributor to global warming as well as the

acid rain that destroys forests, wildlife and aquatic resources. The catastrophic oil spill in Valdez, Alaska, was caused in part by the unquenchable thirst for gasoline.

Despite the passage of the 1970 Clean Air Act, more than 110 million Americans breathed air that exceeded federal ozone standards last year. Urban smog levels set a new record in 1988, with levels of ozone—formed when sunlight reacts with atmospheric pollution—5 percent higher than the previous record year. Overall, 101 areas in the nation, including the 24 largest metropolitan areas, exceed federal air-quality standards.

A recent report by the Northeast States for Coordinated Air Use Management found that motor vehicles are the U.S.

single most significant source of carbon monoxide, volatile organic compounds, nitrogen oxides and other toxic compounds. In 1986, for example, motor vehicles were responsible for about 70 percent of total carbon monoxide emissions, 33 percent of hydrocarbons, more than 40 percent of nitrogen oxides and roughly 20 percent of total particulate emissions. Without remedial action, the report warned, overall motor-vehicle emissions will continue to worsen in the '90s.

Autos are also a major factor in global warming because of carbon dioxide emissions. A 1988 Worldwatch report found that the most serious long-term consequence of auto emissions is their contribution to the greenhouse effect. With approx-

imately one-third of the world's 500 million motor vehicles in this country, the U.S. contributes one-quarter of annual worldwide carbon dioxide (CO₂) emissions, more than any other nation. Cars are responsible for half of this total. Autos are also the largest source of chlorofluorocarbon (CFC) emissions, which damage the Earth's ozone layer, because of air-conditioner leakage.

Despite substantial reductions in emissions from new cars, automobiles' percentage contribution to total emissions, other than those of lead, has remained largely unchanged.

The heartbeat of America: Why have pollution-control efforts been so ineffective? The reason is simple: Americans are forced to rely on cars for ground transportation. This has resulted not from the unforeseen consequences of private decisions but from government subsidizing of highways and low gasoline taxes that encourage the ownership and use of private cars. Unbridled highway development, rather than balanced transportation planning, has long been the focus of public policy (see accompanying story).

The automobile's predominance in the U.S. is reflected in the following startling statistics.

- Only 5 percent of Americans use public transportation to get to work; most of them travel alone in their cars.

- Car ownership is growing faster than the population: more than half of all American households own two or more cars.

- There are more than 180 million motor vehicles in the country, an increase of 25 million since 1980.

- Four out of every five miles traveled in the U.S. are by car.

- Americans drove their cars 1.5 trillion miles in 1988, up 43 billion from 1986.

- Since 1970 the number of vehicle miles driven increased 72 percent, and the U.S. Federal Highway Administration (FHWA) predicts another 50 percent increase by the year 2000.

- American cars are driven approximately the same distance as all other cars in the world combined.

As a result of this boom in car ownership and use, traffic delays are expected to quadruple by the year 2005. And increasing congestion costs money in terms of wasted time and fuel. The costs of highway congestion are estimated at \$9 billion and are forecast to rise to \$50 billion by 2005. If current trends continue, the FHWA estimates, traffic delays by then will waste more than 7.3 billion gallons of gas annually, and vehicle hours lost in traffic will increase from approximately 2 billion to more than 8 billion.

But more important than this wasted oil and time are the extensive public-health and economic effects of auto-produced pollution. Air pollution, which affects healthy children and adults as well as those with respiratory problems, causes 2 to 5 percent of human death and disease, Harvard University researcher Haluk Ozkaynak testified before a Senate subcommittee in 1987. Acid rain alone, according to one Senate report, is responsible for 50,000 to 70,000 excess deaths per year, and airborne toxics kill several thousand as well. Air pollution is also the leading cause of lung damage, costing \$16 billion for related health-care costs and another \$40 billion in reduced worker productivity. Pollution-

related damage to forests, aquatic resources and building materials, along with diminished visibility and agricultural productivity, is estimated to cost between \$60 billion and \$100 billion.

A soiled history: Despite air pollution's proven dangers, the Clean Air Act (CAA), which sets standards for certain major pollutants as well as for automobile emissions, has been undercut by compliance delays, modifications and lax enforcement throughout its 19-year history. In the '80s corporate intransigence and internecine congressional battles have plagued the fight for clean air. In fact, since 1981 Congress has failed to reauthorize the CAA and has funded its programs through continuing appropriations resolutions. The Reagan administration's opposition stymied any hope for progress.

But pressures have been building in recent years for action on acid rain, smog and global warming. President George Bush's recent proposals for strengthening the CAA, an attempt to respond to these pressures, broke a legislative stalemate and ensured the emergence of new legislation from this session of Congress. The details were largely uncertain, however, until a recent House compromise virtually guaranteed tighter standards than Bush had proposed.

The House's central protagonists in the clean-air battle serve on the Energy and Commerce Committee (ECC). Rep. John Dingell (D-MI), the committee's powerful chair and the auto industry's main spokesman in Congress, has regularly battled Rep. Henry Waxman (D-CA), who chairs the ECC's subcommittee on health and the environment. Dingell represents Dearborn, Mich., the home of Ford World

Headquarters and several auto plants, while Waxman represents one of the most smog-ridden districts in the nation.

Dingell originally endorsed the Bush proposals, but several key subcommittee votes showed that even tighter fuel-economy standards could not be stopped. Waxman's attempt to substitute his own tougher bill also failed, setting the stage for a meeting between the two longtime rivals. Their compromise, accepted by a unanimous subcommittee vote in early October, avoided a political battle of uncertain outcome on the House floor. The amended standards are tougher than those recommended by Bush, but Dingell was able to obtain delays in compliance as well as discretionary—rather than mandatory—rulemaking provisions for the Environmental Protection Agency (EPA), which enforces the CAA.

Environmentalists greeted the compromise as a victory. But the auto industry, which had endorsed the president's plan, complained that the slightly tightened standards would not produce significantly cleaner air, especially since most pollution is produced by cars that have been driven more than 50,000 miles.

The specter of global warming also prompted action. Last March the EPA issued a report on policy options for dealing with the greenhouse effect. The report suggested fuel-economy standards of 40 miles per gallon and predicted a corporate average fuel economy (CAFE) of 75 miles per gallon by the year 2050. And in a notable reversal of past practice, CAFE for 1990 has been raised from 26.5 to 27.5 miles per gallon—the 1985 standard that was rolled back each successive year by the Reagan administration.

Meanwhile, several members of Con-

gress have begun their own efforts. Five recent bills—sponsored by Rep. Claudine Schneider (R-RI), Sens. Al Gore (D-TN), Tim Wirth (D-CO), and Max Baucus (D-MT), and jointly by Sens. Edward Kennedy and John Kerry (D-MA)—would mandate an increase in CAFE to as much as 50 mpg by the year 2000, an increase that would halve CO₂ emissions as well as reduce gasoline consumption.

Conservation's benefits: Using less gasoline would also bring several other benefits. It would lessen U.S. dependence on foreign oil, thereby improving the trade deficit, and would remove the need to exploit fragile ecosystems. Transportation accounts for the largest single use of oil, 63 percent of annual U.S. consumption—more oil than developing countries use for all purposes. Autos now account for a larger portion of U.S. petroleum demand than before the first oil crisis in the '70s, despite major fuel-economy improvements, and the percentage of imported oil is rising.

The indirect costs of importing oil are borne by the taxpayer. The need for that oil is one reason for the U.S.' continued military presence in the Middle East and makes necessary the Strategic Petroleum Reserve, domestic oil stores intended to protect the U.S. against any future oil embargoes. Before the Alaskan oil spill, Congress was ready to open the Arctic National Wildlife Reserve (ANWR) for oil development but has since shelved the proposal because of rising environmental concern. An amount of oil equivalent to that expected from the ANWR could readily be saved by fuel-economy improvements.

There are no simple solutions for improving air quality. In the short term sev-

eral steps would help, including tighter emissions standards, longer warranty requirements on pollution-control equipment, mandatory inspection, improved fuel economy, a ban on CFCs and vigorous law enforcement. Although the provisions in the House bill are a good first step, they alone are not enough because of inevitable problems with bureaucratic delays, malfunctioning pollution-control equipment and, most of all, increasing car usage.

A national commitment to public transportation is more imperative today than ever before. Unless transportation policy is oriented away from the private automobile, reasonably clean air will be impossible to obtain. Just the reverse occurred during the Reagan years: federal mass-transit funding fell by 30 percent between 1981 and 1988, while highway expenditures increased by 47 percent.

Throughout the country there already has been a renaissance of light-rail trolley development in several cities, including San Diego, Sacramento, Los Angeles and Portland, Ore., as well as heavy-rail lines in Atlanta and Miami. This trend could be encouraged by raising the federal gas tax and earmarking it for public transit. That would provide the billions of dollars necessary for financing urban light-rail transit, aid the development of interurban high-speed trains and discourage unnecessary car trips as well.

But in the long term, continued auto-industry control of transportation technology will ensure that pollution-control efforts remain bogged down in bureaucratic and political battles and pitted against the need for profits. □

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Auto industry's 'initiatives' dismantled public transportation

The automobile dominates transportation in the U.S. primarily because of two auto-industry initiatives: the highway lobby and the dismantling of urban public rail transit. Realizing that an extensive highway network was necessary for the future growth of the industry, General Motors (GM) helped found the National Highway Users Conference, which in 1932 brought together more than 3,000 businesses to lobby for highways.

Their efforts culminated in the 42,000-mile Interstate Highway System, without which the auto's predominance would be unthinkable. Funded by income from gasoline taxes, road construction became the exclusive focus of federal transportation policy for decades, with more than \$200 billion spent by the government during the past 30 years. Aggregate state and local highway spending well exceeds this amount.

And the cost of maintaining the nation's roads is rising; annual expenditures now approach \$70 billion. Yet the total cost of government subsidies of driving is larger. According to Stanley Hart, chair of the Sierra Club's Angeles chapter, costs such as highway construction, road repair, police patrols and paramedic services combine to make the annual subsidy total about \$400 billion.

The decline of public transit was not, however, the inevitable result of subsidized highways. Public ground transportation was largely dismantled in the '30s and '40s as part of an attempt by GM, in conjunction with oil and tire companies, to undermine alternatives to motor vehicles. By 1917 the U.S. had an extensive network of interurban trolley lines with 45,000 miles of track. In the '20s, 20 billion passengers used these lines. To eliminate this alternative, GM and its allies established a holding company to purchase and dismantle trolley lines and substitute diesel buses. Until recently, GM was the largest producer of these buses.

Since the '30s, higher costs and slower speeds contributed to the collapse of several hundred public-transit systems, diverting commuters to cars. In 1949 a Chicago federal jury convicted GM, Standard Oil of California, Firestone Tire and others of conspiring to dismantle trolley lines throughout the country. The fine was a meager \$5,000, and the conviction came too late: by the '50s, 90 percent of the trolleys were gone, and public-transportation ridership continued to decline before increasing slightly in the mid-'70s. Despite this increase, however, only 5 percent of Americans use public transit, a far cry from the levels of the early 1900s.

After World War II the industry intro-

duced high-compression engines as a result of its decision to build larger cars. These engines' emissions interact with sunlight to produce smog, and they contribute to acid rain. Aggravating episodes of air pollution confounded observers because no one realized that smog was not a single-source problem. While industry executives publicly rejected the first studies that called the car a major culprit, in 1954 they formed a joint venture, purportedly to speed the development of pollution-control equipment.

After 10 years of little progress, many observers concluded that the manufacturers' agreement was actually retarding pollution control, and in 1965 the Los Angeles County Board of Supervisors requested a U.S. Justice Department investigation. A grand jury was on the verge of handing down criminal indictments when officials in Washington stepped in. Eventually the case was settled by a consent decree by which the industry agreed to disband the joint venture in return for protection from further legal challenges to past practices. Nonetheless, a confidential Justice Department memo summarizing the investigation leaves little doubt that the industry conspired to hinder the development and installation of pollution-control equipment.

The public's growing interest in the

environment in the '70s targeted the car as a main source of pollution. The stringency of the emission standards that emerged from the Clean Air Act of 1970 shocked the industry. Instead of changing the gasoline engine's basic technology, the industry added catalytic converters to the exhaust system. Ideally, converters turn exhaust gases into harmless vapors, but they have been continually beset by problems. A 1973 report by the National Academy of Sciences called the catalytic system "the most disadvantageous with respect to cost, fuel economy, maintainability and durability." Although more sophisticated controls were introduced in 1980, recent Environmental Protection Agency studies have discovered that the systems function properly in only about half of all cars on the road.

Converters were not the only option. Smaller cars can run on low-compression engines that pollute much less—but smaller cars mean smaller profits.

During the '70s the catalytic system's inherent problems led to a number of delays or modifications in emissions requirements. The most significant modification in the law came in 1977, after the industry threatened to close its plants if the standards were not weakened. Fearing hundreds of thousands of potential layoffs, Congress gave in. —S.L.