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COMMENT: SMOKE BEFORE OIL: MODELING A SUIT AGAINST THE AUTO AND OIL INDUSTRY ON THE TOBACCO TORT LITIGATION IS FEASIBLE

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BIO:

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SUMMARY:

... The petroleum industry (hereinafter "petro industry"), from start to finish, pollutes the environment. ... Lastly, Section III explores the applicability of public nuisance law to petro pollution, proposing that suits by both the California Attorney General and private litigants alleging public nuisance against petroleum fuel and ICE manufacturers could obtain injunctive and civil penalty relief to abate public health and environmental harms. ... The petro industry has failed to warn the public of health harms and opposed all efforts to lowering fuel economy. ... The feasibility of California common-law products liability and public-nuisance suits against petro defendants, namely petroleum fuel and internal combustion engine ("ICE") manufacturers, will thus be the focus of this Comment, though the same theories can be applied in other states. ... There are only two cases based on common-law theories of products liability and nuisance brought against the petro industry for motor-vehicle emissions-related harms. ... This implies that a petro fuel manufacturer may be liable if it is proven individually that its product was a substantial factor in contributing to harm, without requiring tracing the harm to a particular gallon of gas as the cause of the injury. ...

HIGHLIGHT: *"If we can send humans to the moon and store encyclopedias' worth of information on something the size of a coin, why aren't we driving fuel -- efficient vehicles that don't pollute?"* n1

TEXT:

[*1] INTRODUCTION

The petroleum industry (hereinafter "petro industry"), from start to finish, pollutes the environment. n2 Oil production facilities spill and leak toxic chemicals, transport operations have frequent accidents, refineries discharge large amounts of toxic by-products, n3 and underground storage tanks leak gasoline constituents into the soil and drinking water. n4 Automobiles emit [*2] pollutants that cause health harms, smog, climate change, and a hole in the earth's ozone layer, n5 while petroleum dependence is increasing the need for highways, which diminishes the size of wildlife corridors. n6 These are just a few of the international social and environmental harms associated with the petro industry. n7 Comprising oil companies, refineries, engine and vehicle manufacturers, and the purveyors of related products and devices, the petro industry makes and markets products that release toxic chemicals not just from the tailpipe or

smokestack, but at every step in the production-to-consumption process. n8 In fact, the petro industry might be the largest source of pollution on the planet, and yet it is unnecessary.

Successful litigation in the 1990s against the tobacco industry demonstrated that common-law torts suits can be used effectively against manufacturers of widely disseminated harmful products in order to recover private and public expenditures. n9 The principles learned [*3] from tobacco litigation may be used to recoup private and public costs from the petro industry for harm caused by use of their products. Six years before 46 state attorneys general settled with the nation's four major tobacco companies for \$ 206 billion, one commentator poignantly noted: "In an era of comparative fault, it must be regarded as a remarkable feat that an industry claimed to be responsible for the highest toll of premature death in human history could withstand almost four decades of litigation without paying a single adverse monetary award." n10 Shortly thereafter, on the heel of two waves of lawsuits against the tobacco industry, a state-led influx of tobacco litigation occurred nationwide. n11

Like the tobacco industry, the petro industry has managed to pass billions of dollars in environmental costs to the public, while successfully avoiding common-law tort liability. The net income of the major United States petroleum companies from 1990 to 2001 was \$ 318.2 billion, not including the income of U.S. mining, manufacturing, and trade petroleum corporations. n12 In 1997, Americans paid \$ 4 billion -- or \$.05 per gallon of gasoline -- in additional costs due to ozone-related respiratory health problems, and up to tens of billions of dollars -- or \$.59 per gallon of diesel -- in additional costs due to increased morbidity and premature mortality caused by particulates and acidic aerosols. n13

[*4] This Comment explores the viability of using the same legal theories employed in the 1990s tobacco litigation against the petro industry, to hold it accountable in California for some of the harms caused by its products. Section I reviews the historical framework and key events leading to the recovery of public tobacco expenses and attainment of tobacco industry accountability. Section II describes some of the damages that petro plaintiffs could allege in similar tort claims brought against the petro industry and identifies public costs that petro plaintiffs might be able to recover. Section III explores the feasibility of bringing petro tort claims in California against manufacturers of internal combustion engines ("ICE") and petroleum fuel. Section III analyzes the ability of petro plaintiffs to establish standing and whether any federal laws preempt their claims, concluding that plaintiffs could establish standing to bring either a products liability or nuisance suit and that their claims could survive preemption challenges. Section III then explores the applicability of products liability law to petro pollution. In particular, the element of causation is considered and found to be provable under California law. The California tests for defective design are also considered, including which test is appropriate for petro litigation. This Section proposes that a strict liability defective design claim against petroleum fuel and ICE manufacturers could be successful. Lastly, Section III explores the applicability of public nuisance law to petro pollution, proposing that suits by both the California Attorney General and private litigants alleging public nuisance against petroleum fuel and ICE manufacturers could obtain injunctive and civil penalty relief to abate public health and environmental harms.

I. BACKGROUND -- HISTORY OF THE TOBACCO TORT LITIGATION

[*5] The day after a California law shielding the tobacco industry from liability expired in 1997, California's Attorney General filed suit against the American "tobacco industry." n14 Until that point, the industry had successfully staved off lawsuits through legal and non-legal defense tactics even in states without laws exempting tobacco products from products liability. n15 The tobacco industry's main strategy was never to settle, while fighting back with its high-powered lawyers and inexhaustible financial resources. n16 Plaintiff smokers, as a result, commonly lost due to financial bankruptcy. n17 After the adoption of *comment i of the Restatement (Second) of Torts*, some courts opined that its language exempted tobacco from products liability. n18 Some tobacco defendants successfully argued that no safer alternative design existed and causation was unproven. n19 Before juries, however, the defense's most powerful argument was always assumption of risk. Smokers assumed the risk by voluntarily choosing to smoke, and suing for [*6] self-imposed harm lacked moral character. n20 The strength of the assumption-of-risk defense defeated common-law theories of liability against the tobacco industry since the Surgeon General's Report in 1964 first concluded that cigarette smoking is an immediate health hazard. n21

Early in the 1990's, tobacco plaintiffs obtained the "smoking gun." Confidential industry files anonymously sent to a San Diego law professor, and discovery documents obtained by plaintiff's attorneys in *Cipollone v. Liggett Group, Inc.*, provided evidence of "the tobacco industry's calculated and successful efforts [since] the 1930's to confuse the American public and their doctors about the dangers of cigarette smoking." n22 After not settling a claim in 35 years, the tobacco industry began settling and losing lawsuits. n23 Tobacco plaintiffs finally could prove that tobacco products were defective products without the industry successfully defending on the basis of assumption of risk, lack of cau-

sation, or lack of awareness. n24

The "smoking gun" documents showed the tobacco industry purposely and secretly increased the addictive nature of their products and targeted youth to create a lifetime of addiction. n25 In fact, long before the first warnings of the lethal dangers of smoking appeared, the industry knew of the dangers but failed to test their products or warn consumers. n26 Moreover, [*7] the industry could have designed their cigarettes to be less lethal, but refused to do so. n27 A "public relations smokescreen" was designed to deceive consumers and give the appearance that the industry was "testing and improving the safety of their products." n28 Furthermore, the industry actively conspired to stifle public awareness about relevant scientific developments. n29 In one instance, a press release from a July 1962 circulation by the Tobacco Industry Research Committee announced that a scientist had given "28 reasons for his belief that the causal relationship of cigarette smoking to lung cancer is certainly unproved." n30 The industry sent this press release not only to members of Congress, but also to American doctors. n31 A confidential memo between lawyers of a prominent tobacco-defense law firm warned that "the introduction of the purportedly safer' cigarette could immediately and significantly increase (tobacco companies) exposure to liability for sales of conventional cigarettes." n32 Evidence from tobacco suits against Morris, Liggett, and Lorillard showed all three defendants either made safer cigarettes or made substantial progress toward their development as early as the 1960s, but chose not to sell them. n33 The new evidence spurred State Attorneys General nationwide to bring suit against the tobacco industry. n34 They used the same tort claims alleged for decades in unsuccessful tobacco litigation, such as negligent and intentional misrepresentation, products liability for defective design and failure to warn, and nuisance theories.

[*8] In *People of the State of California v. Philip Morris, Inc.*, California's Attorney General alleged that the defendant tobacco companies had "placed on the market defective tobacco products, knowing that they would be used without inspection for defect, which have caused injury to human beings, including many who were and are California Medi-Cal beneficiaries . . . [their] products were defectively designed because their products failed to perform as safely as an ordinary smoker or user would expect when used in the intended or reasonably foreseeable manner." n35 The hidden addictive nature of their products could now be established from the industry's own statements, preventing the factfinder from concluding the smokers foresaw and assumed the risk. n36 The industry actually manipulated their product's design by increasing nicotine levels, thereby decreasing smokers' ability to control their exposure to the risk of harm. n37 The claim asserted the tobacco products were "defectively designed because they contained excessive preventable dangers . . . [and] the Defendant Tobacco Companies failed to redesign their products to reduce this health risk, and in fact, frequently took steps to increase or enhance this risk." n38 This allegation was supported by evidence showing cigarette manufacturers failed to warn consumers of the addictive power of tobacco and politically opposed all efforts to include this warning on federally mandated labels. n39 California alleged that the products' design injured thousands of California consumers. n40 These injuries include addiction, lung cancer, [*9] throat cancer, emphysema, heart disease, birth defects, and death. n41 The State concluded that it had a right to recover its expenses under California's Welfare & Institutions Code since the defendants' defective products directly and proximately injured California Medi-Cal beneficiaries. n42 The State also alleged punitive damages were warranted based on the industry's moral depravity. n43

In a second cause of action, California alleged that since 1953, the tobacco companies conspired and agreed to unreasonably restrain the market for cigarettes and other tobacco products in violation of the Cartwright Act, by limiting and suppressing research and information that could have led to product innovations. n44 This prevented the making of a safer cigarette available to the consuming public and allowing other manufacturers to lawfully compete in the market. n45 The deprivation of the choice to buy a safer cigarette product buttressed the claim for reimbursement of Medi-Cal expenses. It lowered the degree of fault attributable to smokers for failing to choose to buy less-harmful products. California joined its claim with claims from 39 other states. n46 While different states used slightly different theories of liability, all included [*10] claims, like California's, for Medicare reimbursement based on tort liability. n47 The defendant manufacturers that had escaped paying a cent for 35 years agreed to a \$ 246 billion settlement. n48 Thus it was a case in which every defendant implicitly acknowledged its potential liability.

Applicability of the same legal theories against other industries has not gone unnoticed. n49 As many commentators have noted, "the tobacco litigation is a touchstone of tort law's expanding social and public policy role." n50 Such lawsuits are accomplishing in court what could not be achieved in the state and federal legislative branches. n51 Moreover, the explosion of the anti-tobacco action demonstrates the effectiveness of the movement. n52

The nexus for the next lawsuit could be the petro industry. For instance, for over fifty years scientists and politicians have known about the health and environmental harms caused by use of gasoline, diesel fuel and related petrochemical products (collectively "petroleum products"), yet their sale continues without legal challenge. Petro industry

products cause harm that arguably dwarfs the harm caused by tobacco industry products. A lawsuit against the petro industry to recover medical reimbursement costs and environmental response costs could bring the biggest settlement of all time.

[*11] II. DISCUSSION -- DAMAGES CAUSED BY THE USE OF PETRO PRODUCTS

Significant evidence exists that petro products are causing substantial health costs, public costs, and environmental costs. n53 Actual details concerning the practices and knowledge of petro defendants regarding these harms would likely require corporate research and discovery. However, the following summary indicates that the kinds and breadth of damages petro plaintiffs can claim may exceed those of tobacco tort plaintiffs.

1. Public Health Harms

The health of American citizens is significantly harmed by the major constituents of automobile exhaust, which have been identified since 1922. n54 In 1957, some members of Congress were so concerned about the health effects of vehicle pollution that a bill was introduced (although ultimately not passed) to prohibit from U.S. roadways any motor vehicle that discharged pollution in excess of levels found dangerous by the U.S. Surgeon General. n55 Today, it is common knowledge that human exposure to petroleum emissions trapped in a garage causes death. Less known is that exposure to these emissions trapped within the earth's atmospheric layers is causing not only early death, n56 but also cancer, n57 respiratory illness, n58 heart [*12] and blood problems, n59 reproduction and fetal problems, n60 and nervous system toxicity. n61 In 1990, the United States Environmental Protection Agency declared "over half the cancer [*13] incidence is caused by air pollution coming from cars." n62 Babies and children are most at risk due to physiological vulnerabilities, such as greater relative exposure, less developed metabolism, and higher rates of cell production, growth, and change. n63 Furthermore, there are social vulnerabilities such as poverty, malnutrition, and environmental injustice. n64

American auto manufacturers and oil industries have historically favored profits over protecting public and environmental health. The Big Three automobile manufacturers once claimed that the auto industry would be ruined by the added expense if required to install seatbelts and air bags. n65 Beginning in the 1930s, National City Lines, a company backed by General Motors, Standard Oil, Philips Petroleum, Firestone Tires and Rubber, Mack Truck, and other interests, systematically bought up and closed down more than 100 electric trolley lines in 45 cities across the country. n66 In 1949, a federal grand jury indicted GM and the other [*14] companies of conspiring to replace electric transportation systems with buses and to monopolize the sale of buses. n67 In 1969, the Justice Department charged the Automobile Manufacturers Association, along with American Motors, Chrysler, Ford and General Motors, with conspiring to prevent and delay the manufacture and use of pollution-control devices for automobiles. n68

The concentration of petroleum fuel by-products from automotive combustion is responsible for as much as fifty percent of ozone in urban areas and is one of the country's largest sources of greenhouse gases that cause global warming. n69 Claiming that global warming is unproven, the petro industry has engaged in a disinformation campaign similar to the tobacco industry's. n70 It spent millions of dollars funding the Global Climate Coalition ("GCC") to convince the public global warming is not a threat and to lobby Congress against participation in the Kyoto Protocol. n71 This mimics the deceptive claims made for years by the tobacco industry. n72 Further, all the major automobile manufacturers have developed more fuel-efficient vehicles, and the oil industry -- more so than any other industry -- is in the position to take the lead in hydrogen fuel production when oil runs out. Yet both industries, automobile and oil, have decided to make less harmful products available only to an extremely limited, if not practically [*15] unavailable, market. n73 For example, a waiting list for the Toyota Prius (a hybrid vehicle that gets about 60 miles to the gallon) currently exists, and only recently was the vehicle even placed on the market. n74

The majority of Americans are dependent on petroleum fuel and inefficient automobiles, and while some have attempted to reduce their use, petroleum-driven engines are far more available, socially accepted, and highly promoted than nonpolluting engines. The petro industry has failed to warn the public of health harms and opposed all efforts to lowering fuel economy. n75 Yet, the petro industry is costing California billions not only in Medicare expenses, but also in environmental cleanup costs. n76 The far-reaching and pernicious impacts of the oil industry necessitate a legal effort similar to the tobacco tort litigation to control or reduce the industry's adverse impacts.

2. Public Costs

It is estimated that reducing oil consumption could conceivably result in tens of billions of dollars per year to the

U.S. economy and increased leverage on the climate-change problem, "whose potential costs are huge but incalculable." n77 Public costs that could be estimated and recovered for harm caused by using petroleum products include health costs, air-and water-pollution [*16] costs, environmental cleanup costs, and crop productivity losses. n78 In 1997 Americans paid \$ 4 billion, or \$.05 per gallon of gasoline, in additional cost due to ozone-related respiratory health problems, and up to tens of billions of dollars, or \$.59 per gallon of diesel, in additional costs due to increased morbidity and premature mortality caused by particulates and acidic aerosols. n79 This estimate is based on multiple studies in different years, and it provides one indication of the amount of California's Medicare expenses that could be recoverable for petro-related harms. n80

Environmental, health, and social costs represent the largest portion of the externalized price Americans pay for their gasoline reliance, totaling \$ 231.7 to \$ 942.9 billion every year. n81 An estimated \$ 29.3 to \$ 542.4 billion of this is just for uncompensated health costs associated with automobile emissions. n82 A 1999 estimate placed the national external costs of air pollution from motor vehicles between \$ 24.3 billion and \$ 450 billion, and the total national direct costs of adverse health effects due to air pollution at \$ 54.7 billion to \$ 672.3 billion a year. n83 These figures represent costs for everything from headaches to hospitalization, asthma attacks to [*17] respiratory illness, and chronic illness to mortality. n84 Particulate matter (PM-10) accounted for the vast majority of these costs (\$ 16.7 billion to \$ 432 billion). n85

In the Los Angeles area, health-related air pollution damages can run between \$ 7.8 billion to \$ 88.6 billion a year. n86 It is projected that in 1992, the annual economic value of avoiding air pollution health effects in the South Coast Air Basin of California, in which Los Angeles is located, was nearly \$ 10 billion. n87 Attaining commensurate air pollution standards would have saved 1,600 lives. n88 Lost productivity due to illness caused by auto-related air pollution is also a major cost to society and the economy. n89

Other estimates of external public costs, such as tax subsidization of the oil industry, government program subsidies, protection costs in oil shipment and motor vehicle services, environmental, health, and social costs of gasoline usage, and other externalities of motor vehicle use, total \$ 558.7 billion to \$ 1.69 trillion per year. n90 When added to the retail price of gasoline, this makes the real per gallon price of gas between \$ 5.60 and \$ 15.14. n91

3. *Environmental Costs*

[*18] Environmental costs that petro plaintiffs may be able to recover based on expense totals kept in the state's public records are abatement, regulatory, and remediation costs not recovered from the responsible parties. n92 Estimates of annual values for significant environmental externalities include global warming (\$ 3 to \$ 27.5 billion) and water pollution (\$ 8.4 to \$ 36.8 billion). n93 A more conservative estimate finds water pollution associated with motor vehicle use (such as leaking tanks, oil spills, and polluted runoff) results in environmental, economic, and health costs of \$ 0.4 to 1.5 billion annually. n94 Other costs associated with localized air pollution attributable to gasoline-powered automobiles include decreased agricultural yields (\$ 2.1 to \$ 4.2 billion), reduced visibility (\$ 6.1 to \$ 44.5 billion), and damage to buildings and materials (\$ 1.2 to \$ 9.6 billion). n95

The petro industry "indirectly" causes the growth of urban sprawl. n96 Even the impact of urban sprawl adds to the economic consequences wrought by the petro industry. n97 These include "additional environmental degradation (up to \$ 58.4 billion), aesthetic degradation of cultural sites (up to \$ 11.7 billion), social deterioration (up to \$ 58.4 billion), additional municipal costs including costs of regulatory agencies (up to \$ 53.8 billion), and additional transportation costs [*19] (up to \$ 145 billion)." n98 Researchers in the field of transportation cost analysis reduce their totals by twenty-five to fifty percent to account for any error in the cost analysis. n99 Still they "arrive at a total of \$ 163.7 to \$ 245.5 billion per year." n100

III. PROPOSAL

A. PETRO TORT LITIGATION MADE FEASIBLE BY TOBACCO LITIGATION

The fruits of asbestos litigation supported tobacco litigation and now the fruits of tobacco litigation may support petroleum litigation. n101 In tobacco and asbestos litigation, alliances between state and "private" attorneys general created sufficient resources to withstand tobacco industry defenses. n102 This alliance may once again be necessary and the same legal tactics and tort theories -- such as products liability and nuisance -- may possess an even greater likelihood of success against the petro industry. n103

B. TOBACCO TORT LITIGATION THEORIES APPLIED TO CALIFORNIA PETRO TORT LITIGATION

[*20] Because it has often been at the forefront of environmental protection, California is an appropriate first venue for petro tort litigation. California has, for example, pioneered legislation directed at controlling vehicle emissions. n104 As early as 1947, California enacted enabling legislation so local jurisdictions could cope with particular pollution-control problems, n105 and it is the only state with a waiver from federal fuel regulations. n106 Moreover, in regard to products liability it is the birthplace of strict liability. n107 California also has a favorable political climate. The feasibility of California common-law products liability and public-nuisance suits against petro defendants, namely petroleum fuel and internal combustion engine ("ICE") manufacturers, will thus be the focus of this Comment, though the same theories can be applied in other states.

1. Petro Plaintiff Standing

Any petro tort lawsuit begins with the preliminary question of whether the plaintiffs would have legal standing to bring suit. There are only two cases based on common-law theories of products liability and nuisance brought against the petro industry for motor-vehicle emissions-related harms. In these cases, the courts found the plaintiffs pled as indeterminately large groups that had too many divergent interests to be fairly adjudicated. n108 In *Diamond v. General Motors* [*21] *Corp.*, the plaintiffs alleged tort theories of products liability and nuisance against automobile manufacturers, petroleum refiners, gasoline filling stations, and others for injury from the pollution caused by use of petroleum products. n109 The plaintiffs attempted to represent a class by aggregating 7,119,184 claims based on their common status as property owners seeking unliquidated damages arising out of 7,119,184 special injuries. n110 The court found that each individual plaintiff required a determination of the fact of injury separately against each defendant and that the plaintiffs had joined defendants without alleging any facts that would make the defendants jointly or vicariously liable. n111 The California Court of Appeals (2nd Appellate District) affirmed the trial court's judgment of dismissal based on problems of trial and proof, finding the class claim ". . . beyond [the trial court's] effective capability." n112 The following year, in *City of Chicago v. General Motors*, Chicago sought to represent all Illinois citizens who were residents of Chicago whose health and welfare had been endangered by the defendant's activities. n113 In this case, the court did not think Chicago adequately represented the class because some of the members would be adversely affected by the suit, such as Chicago motor vehicle dealers and retail gas outlet owners. n114

[*22] California petro litigants can overcome these legal hurdles to standing and class certification, as plaintiffs in the recent wave of tobacco litigation did. n115 Although the California court of appeals in *Diamond* held that the size of the plaintiff class (over seven million), the diversity of their interests, and the multiplicity of issues would make the proceeding unmanageable, it stated that the dismissal "is not a bar either to individual actions, or to other class actions appropriately framed." n116 Thus, the outcome of *Diamond* left open the question of what an appropriate framework for petro tort litigation is. It also suggests that petro pollution litigants can get a case heard on its merits. The reasoning in *Diamond* implies that petro plaintiffs must either be state officials or smaller groups with more particularized harm. For example, children suffering from respiratory illnesses caused or exacerbated by tailpipe emissions and living in proximity to highways or heavily trafficked streets may be a more "manageable" group than the putative class in *Diamond*. n117 Also, if farmers sue for decreased productivity caused by pollution, such claims of injury to business or property may warrant standing since "a diminished crop yield would constitute injury to commercial interests." n118 Another possible group that may have standing is nonprofit organizations, perhaps an environmental organization or the American Lung Association. n119 It has been suggested that all coastal states may have standing based on harms caused by global warming, such as "rising sea [*23] levels due to thawing permafrost and melting and thinning sea ice." n120 Based on the outcome of the tobacco litigation, however, an action brought by the State Attorney General for reimbursement of Medi-Cal expenses or environmental cleanup expenditures may have the greatest likelihood of success. n121

2. Likely Preemption Defenses

In the tobacco tort litigation, the United States Supreme Court, in *Cipollone v. Liggett Group*, held that a plaintiff's failure-to-warn and fraudulent-misrepresentation claims were preempted because they involved obligations within the meaning of the Federal Cigarette Labeling and Advertising Act ("FCLA") of 1965. n122 The Court held that other common-law claims not involving obligations within the FCLA's meaning were not preempted. n123

In *Cipollone*, the Court stated preemption analysis begins with the assumption that federal law does not supersede "the historic police powers of the States . . . unless [it] is the clear and manifest purpose of Congress." n124 The presumption against preemption of a state's police powers is strong. n125 If Congress intends to supersede this power it

must do so either explicitly as stated in the express language of an act or implicitly as contained in an act's structure and [*24] purpose. n126 In the absence of explicit statutory language, state law is preempted if it actually conflicts with an act, or if an act "so thoroughly occupies any legislative field as to make reasonable the inference that Congress left no room for the States to supplement it." n127 If preemption is explicitly addressed, (applying a variation of *expressio unius est exclusio alterius*) the court may find that the provision is a reliable indicium of congressional intent and refrain from inferring any Congressional intent beyond the preemption language. n128

Relevant to petro litigation is the states' significant power to protect their air, water, and land, as well as the lives, health, and comfort of their residents. n129 In response to petro plaintiffs' state common-law claims, petro defendants will likely raise three federal laws as the basis of preemption defenses: the Clean Air Act ("CAA"), Resource Conservation and Recovery Act ("RCRA"), and Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").

a. CAA Preemption Defense

Products liability and nuisance claims against petroleum fuel and ICE manufacturers may both face preemption defenses based on the CAA. Petroleum fuel defendants, however, may [*25] have a weak defense. The CAA includes an express preemption provision that prohibits the states from imposing any control or prohibition of motor vehicle fuels and fuel additives "for purposes of motor vehicle emission control." n130 One of the exceptions to this provision, however, is that the CAA permits California, as a state that regulated automotive emissions before Congress entered the field, to "at any time prescribe and enforce for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive." n131 In holding that California could enact a ban on the gasoline additive MTBE, for the purpose of preventing contamination to private wells, the Ninth Circuit rejected express and implied preemption arguments based on the CAA. n132 It held California's waiver from federal fuel regulations is broad and unqualified and gives California a "freer hand than the EPA." n133 The court found Congress's "clear and manifest purpose" was *not* "to preempt the field where California is concerned." n134 It even held California may act to ban fuel for other purposes besides emission control. n135 While petro defendants will likely argue that allowing a common-law action for petroleum fuel would destabilize the national economy and fuel supply, the Ninth Circuit's response to a similar argument regarding the ban of MTBE was that the CAA does not require California to consider the national price and supply of gasoline. n136 A federal goal of ensuring an adequate supply of a product was too speculative to support preemption. n137

[*26] California common-law claims against ICE manufacturers have a less-certain outcome. n138 California's exemption from federal preemption of state regulation of fuel standards has yet to be applied to vehicle or engine-part requirements. n139 Currently, California may assert this waiver in defense of a state law requiring reduction of carbon dioxide from automobiles. n140 But this case may take years to unfold. Favorable precedent exists for plaintiffs suing under common-law theories against stationary air polluters to overcome CAA preemption defenses, but no case speaks directly to the issue regarding mobile sources. n141 Section 209 of the CAA makes the direct application of stationary precedent difficult. Section 209(a) provides:

No State or any political subdivision thereof shall adopt or attempt to enforce *any standard* relating to the control of emissions from new motor vehicles or new motor vehicle engines. . . . No State shall require certification, inspection, or any other *approval* relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment. (emphasis added). 42 U.S.C. § 209(a) (2004).

Unless California's waiver is held to apply to ICEs, the petro industry's defenses here would be similar to the tobacco industry's preemption defenses in *Cipollone*. n142 Namely, that a federal law specifically relates to the applicable common-law claims but does not directly address the issue. *Cipollone* held the central inquiry in such a case is "whether the legal duty that is the predicate of the common law . . . action" satisfies the act's express terms, giving those terms "a fair but [*27] narrow reading." n143 Accordingly, petro plaintiffs' ICE tort claims would appear to be preempted if they rely on a state law that requires any "approval" relating to the control of emissions or attempts to create "any standard" relating to the control of emissions on new ICEs. n144

The predicate duty of petro plaintiffs' products-liability claim is arguably a state-law duty not to place defective products on the market that cause injury to human beings. n145 The predicate duty of their nuisance claims is a duty

not to create anything that is injurious or offensive to the public health or comfort. n146 Proving these theories would not be based on a determination of whether manufacturers complied with emissions standards or a demonstration that the engines do not comply with federal law. In *Cipollone*, the Court applied this analysis to decide that fraudulent-misrepresentation claims based on concealment of a material fact arising with respect to advertising and promotions are not preempted by the Federal Cigarette Labeling Act. n147 The court decided such claims are not predicated "on a duty based on smoking and health' but rather on a more general duty not to deceive." n148 Petro plaintiffs could similarly assert their claims are not based on a duty to comply with Federal emissions standards, but rather on a more general obligation -- the duty not to injure human beings and natural places. Preempting such claims would be effectively allowing zones of sacrifice.

The CAA's savings provision, absent in the act analyzed in *Cipollone*, increases petro plaintiffs' chances of defeating a preemption defense based on the CAA. n149 The CAA's savings [*28] provision retains substantial retention of state authority. n150 It states that, except in limited circumstances, "nothing in [the] Act shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution . . ." n151 From this the Ninth Circuit observed that the CAA envisions, without specifically authorizing, other remedial actions where such are grounded in statute or common law. n152 The Supreme Court has held savings clauses allow for a narrow reading of a statute that preserves common-law claims. n153

Courts have noted several other provisions of the CAA that further support retention of state authority and a narrow reading of Section 209(a). n154 When drafting the CAA, Congress found "that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments." n155 The Supreme Court held that Congress recognizes the CAA is not a uniform, nationwide solution to every aspect of air pollution. n156 Furthermore, the CAA states Congress's purpose is "to provide technical and financial assistance to State and local governments in connection with the development and execution of *their* air pollution prevention and control programs." n157 To this end, citizens, states, [*29] and local governments are empowered to initiate actions to enforce compliance with the Act and to enforce other statutory and common-law rights. n158

The only legal effort testing the CAA preemption of state laws regulating emissions of motor vehicles occurred in the 1970's. n159 In the leading case on the issue of CAA preemption the Supreme Court directed that such cases are best decided locally. n160 Summarizing fields of CAA preemption, the Court noted that "standards" in regard to fuel emissions on new vehicles are largely preempted. n161 This was prompted by the underlying suit filed by 18 states, with 16 filing amicus briefs in support of the states, seeking an order requiring automobile manufacturers to install anti-pollution control devices on all motor vehicles and to accelerate air pollution research. n162 Only one region tested this decision. n163 The Seventh Circuit held that a city action seeking to stop the sale of motor vehicles within the city unless the vehicles were equipped with tamper-proof emission control devices satisfied "standard" under the Section 209(a) prohibition regarding regulation of new motor vehicles (post-1968). n164 From the outcome of these cases, it appears a California court may find the definition of "standard" includes an action by a local governing body seeking an order requiring automobile (ICE) manufacturers to take proactive measures as to all vehicle models (engine types). Arguably in the case of common-law theories for damages, a different situation exists than as to a proactive measure being sought to be applied [*30] uniformly to all ICE manufacturers. n165 Rather, what is sought is the recovery of costs of public expenditures to redress harms caused by their products or an outright prohibition of the products.

b. RCRA and CERCLA Preemption Defense

A thicket of statutes and regulations govern environmental cleanup at petroleum-spill sites, possibly making it more difficult for petro plaintiffs, in actions for environmental cost recovery, to overcome preemption defenses. n166 Federal and state laws governing environmental cleanup cost recovery for petroleum contamination, however, do not facially or by case law preclude common-law tort actions for environmental harms, so the defenses may be surmountable. n167

State enforcement cleanup actions can be brought under CERCLA or the Carpenter-Presley-Tanner Hazardous Substance Account Act ("CPTHSA"). n168 CPTHSA is a California law that authorizes cost recovery spent in environmental response actions, yet excludes petroleum fuel from the hazardous substances covered by the act, as does CERCLA, the federal law it was modeled after. n169 Petro plaintiffs can argue against preemption defenses under either [*31] act because petroleum is not covered by their provisions, and the acts do not expressly preempt common-law tort actions. n170 Since such exemptions have precluded CPTHSA plaintiffs seeking environmental cleanup cost recovery under the general cost recovery mechanism of the California Hazardous Substance Account Act ("HSAA")

from recovering costs incurred in cleaning petroleum contamination in soil, petroleum's exclusion from the meaning of the act seems apparent. n171 Also, the notes of decisions for the HSAA support the proposition that public nuisance and California environmental laws are not preempted by cleanup laws. n172

RCRA, the other commonly used enforcement authority for environmental cleanup sites, has neither a petroleum exclusion provision nor a provision preempting common-law tort actions. n173 In 1986, RCRA was amended to include a leaking underground storage tank ("LUST") provision, which specifically allows state and federal cost recovery from petroleum contamination resulting from LUSTs. n174 California law includes a similar provision. n175 While this may preempt the field with regard to LUSTs, plaintiffs claiming other types of petroleum contamination have pled common-law tort actions in addition to RCRA claims. n176 Moreover, the Supreme Court recently noted that CERCLA's purpose focuses on cleanup of hazardous waste sites and the imposition of all cleanup costs on responsible parties, as opposed to RCRA's focus [*32] on hazardous waste reduction. n177 The petroleum exclusion in CERCLA, therefore, arguably leaves the field of tort recovery of cleanup costs available for petroleum contamination. n178 Also, the discrepancy between the exclusion of petroleum as a hazardous substance in CERCLA and its inclusion in RCRA may indicate Congress did not intend the field to be preempted. When "a statute expressly provides a particular remedy or remedies, a court must be chary of reading [any other congressional intent from] it." n179 Settlements under RCRA, CERCLA, and CPTHSAA are often far below actual out-of-pocket government expenditures, indicating a significant potential area of cost recovery for reimbursement of public dollars to petro plaintiffs. n180

3. Products Liability Causes of Action

California petro plaintiffs, unlike their predecessor tobacco plaintiffs, do not have to wait for a statutory immunity protection to expire to bring products liability actions. n181 No specific California statute exempts petroleum and related products from products liability. n182 So petro manufacturers are subject to California products liability law.

Under product liability law in California, as stated in the *Restatement (Second) of Torts*, if a product is capable of serious harm in the design, inspection, or fabrication of the product, the manufacturer owes a duty not just to the immediate purchaser of the product, but to all persons [*33] who might foreseeably be affected by the product. n183 Liability may be based on theories of negligence, breach of warranty, strict liability, or misrepresentation. n184 Claims may incorporate one or all of the underlying theories. n185 Regardless of the theory, though, the plaintiff must prove that a product is defective when used for its intended purpose and was defective when it left the defendant's control, and its defect makes it unreasonably dangerous and proximately caused the plaintiff's injuries. n186 In petro tort litigation, strict liability and negligence appear particularly well-suited to achieving products-liability's goals of insuring that the costs of injuries resulting from defective products be paid by the manufacturers that put such products on the market, rather than by injured persons who are powerless to protect themselves. n187

a. Proof of Causation

A products-liability petro tort case in California may be tried under one of two variations of the standard of proof of causation. n188 Ordinarily, under products liability the plaintiff must prove that defective products supplied by the defendant were a substantial factor in bringing [*34] about his or her injury. n189 This substantial-factor test, the same as the *Restatement (Second)*'s, subsumes the cause-in-fact determination. n190 The second standard of proof is met by establishing a reasonable medical probability, based on expert testimony, that the defendant's conduct contributed to the plaintiff's injury. n191

Describing the need for the new standard of proof of causation, the California Supreme Court explained that plaintiffs cannot be expected to prove the scientifically unknown details of carcinogens or trace the unknowable path of a given toxic fiber. n192 This implies that a petro fuel manufacturer may be liable if it is proven individually that its product was a substantial factor in contributing to harm, without requiring tracing the harm to a particular gallon of gas as the cause of the injury. The Court's preference for the new test is demonstrated by the Court's application of it in negligence and products liability actions, and in decisions involving carcinogenic pharmaceuticals, asbestos, and a variety of other types of toxic chemical exposure. n193 Applying it to an asbestos design defect claim, the Court asserted the gap in the "humanly unknowable" can be bridged by showing "in reasonable medical probability" that *the alleged designs* of the products were a substantial factor contributing to the *dose* of carcinogens inhaled or ingested and hence to the plaintiff's *risk* of developing lung cancer. n194

[*35] The same facts in these types of toxic-tort cases led the courts away from *Summers'* alternative liability theory to *Sindell's* market-share liability theory. n195 Market-share liability theory, however, has only been applied in one

circumstance, "where hundreds of producers . . . had made the same drug from an identical formula, practically precluding patients from identifying the makers of the drugs they [ingested]." n196 Whether market-share liability would be permitted in tobacco or petro litigation is unclear in California, though other states have held it is appropriate in tobacco litigation authorized by statute. n197 Given the complicated nature of causation in toxic torts and the newness of the reasonable medical probability test, some uncertainty also remains about whether it would be applied in petro litigation and the effect it would have on the plaintiff's case. n198

The most telling sign that a petro plaintiff's case may warrant the new reasonable medical probability test is that it applies in products-liability actions involving claims for relief arising [*36] from chronic and latent illnesses or disease allegedly caused by exposure to toxic substances. n199 Recently a court found cigarettes easily fit this description but did not determine which variant on proof of causation applied, because it found the evidence of causation insufficient under either test. n200 Also, in a setting analogous to that of petro products exposure, the test has been held appropriate to show causation in an occupational setting with many different sources making it difficult to pinpoint the source. n201 That case held that causation can be properly alleged under the new test, but the test's version of "substantial factor" must be proven as to each defendant. n202 Generally speaking, characteristics of cases warranting the reasonable medical probability test include complex and inscrutable questions of medical causation, involving harm that flows from a class of products with different toxicities and brands of products that have differing effects on different product-related diseases. n203

Although basic standards of proof of causation seem applicable to ICEs, petroleum fuel may be found to fit these characteristics. Arguably, petroleum fuel, like asbestos and cigarettes, is in a class of products that have differing propensities of various forms of products to cause injury and disease. For example, in asbestos-containing products the specific type of asbestos fiber incorporated into a product, the physical properties of the product itself, and the percentage of asbestos used in the product all affect the corresponding potential for inducing asbestos-related disease. n204 Similarly, the blends and octanes of petroleum fuel affect the corresponding [*37] potential for inducing petroleum pollution related disease. n205 A similar analogy can also be made to cigarette blends, styles, and toxicity.

Under either causation test, petro plaintiffs in a defective *design* suit will have to prove that it is the *design* of the product that caused the injury. The widely accepted belief that automobile emissions are responsible for significant levels of air pollution in metropolitan areas suggests the causation burden of proof can be met. Undoubtedly, if the reasonable medical probability test is allowed and the evidence shows that the design of the petro defendant's products contributed to plaintiff's injuries, the causation element would be satisfied. If not, the actions that satisfy a substantial-factor test in California are still relatively broad. n206 A force that plays only a theoretical part in bringing about injury, damage, or loss is not a substantial factor, but a very minor force that does cause harm is a substantial factor. n207 Under either test the standard of proof must be met as to each defendant if more than one type of defendant manufacturer is involved (otherwise market-share liability could apply). n208 Proof of feasible alternative designs will not affect the outcome under strict products liability if upon hindsight, the trier of fact concludes that the product's design is unsafe to consumers, users, or bystanders. n209 This is contrary to negligent-design products liability, where causation will turn on proof that the manufacturer's negligence in not using a feasible alternative safer design is the cause of the injury. n210

[*38] With regard to ICEs, *City of Chicago* calls into question whether the breadth of causation for such a claim is allowed under common-law principles of products liability. n211 The court determined that alleging all cars as defective created an impossibly indeterminate number of sources to prove that any particular vehicle "caused any particular injury to any particular person." n212 One way petro plaintiffs might be able to circumvent this legal hurdle is alleging claims in groups divided by which of the Big Four automobile manufacturers made their vehicle and further divided into subcategories of owners of spark ignition ICEs, which is the dominant passenger car and light truck engine, and owners of diesel ICEs, which constitutes largely the rest of the market. n213 Each owner would be suing for harm caused by his or her particular product, but the claims would be aggregated in a class action. This allegation would be based on the same types of theories used to sue defendant manufacturers for other car parts. n214

One way the causal link was made in the tobacco cases was the introduction of statistical methods of proof. n215 Plaintiffs in the tobacco litigation were allowed to show that a widely distributed product increased the aggregate number of state residents who contracted a disease; such as lung cancer. n216 In fact, this method of proving causation seems to be widely accepted in cancer-related cases: in the tobacco litigation, between 1994 and 1998, Florida, Vermont, and [*39] Maryland all adopted legislation permitting proof by statistical analysis; n217 while Mississippi, Texas, and Minnesota each intended to use statistical analysis without enacting special legislation. n218 In toxic-tort cases involving exposure to the drug Bendectin, as well as silicone, herbicides, and asbestos, courts have allowed statis-

tical evidence to demonstrate causation where direct proof of causation was lacking. n219 The prevalence of acceptance of this method of proof is further evidenced by its use in other types of cases, like human rights violations and trade cases. n220 In general, courts have considered statistical associations as sufficient to satisfy the requisite more-probable-than-not standard, only if they are supplemented by expert testimony, credible scientific evidence, and demonstrated exposure to the product more than doubled the likelihood the plaintiff suffered the injury. n221 This is clearly a formidable task. The advancement of current scientific and medical technologies may make it possible, however, for petro plaintiffs to prove petro-product-related health harms if the courts accept such evidence as causation, such as the signature diseases of asbestosis in asbestos cases and clear cell adenocarcinoma in DES cases. n222

[*40] Generally speaking, in toxic-tort cases, courts have not found differences among degrees of manufacturer liability to preclude finding them properly joined. n223 The presence of other sources of air pollution, however, may confuse the issue of causation in petro litigation. Such cases involving the presence of other potentially liable sources do not generally result in avoidance of liability altogether, but rather a reduction in plaintiff's recovery by comparative-fault principles. n224 In a case in which a smoker sued asbestos manufacturers for lung cancer caused by asbestos exposure, the court awarded damages but reduced them by principles of comparative negligence. n225

The presence of intermediary products in the causal chain between the petroleum fuel, the ICE, and the emissions may further diminish the plaintiff's recovery. The obstacle posed by intermediary products is mitigated, however, when it is considered that while a number of parts of the vehicle could be alleged to contribute to reduced fuel efficiency, only one is the "cause" of the emissions -- the engine. n226 The ICE in petro suits, as the lighter in tobacco suits, involves a foreseeable use of the products that likely will not preclude either petroleum fuel or ICE manufacturer liability.

The petro defendant's defense to claims of causation will likely be similar to previous tobacco industry assumption-of-risk defenses. The need to counter the assumption-of-risk defense may not be present in petro litigation as arguably the public has no other choice than to [*41] buy vehicles. This counterargument is especially applicable to children who are exposed to emissions involuntarily. n227 A person is deemed to have consented under the law only if his or her consent was given voluntarily and with full understanding. n228

b. A Defective Design Action Brought Under Strict Products Liability

A strict-liability design claim against petro manufacturers asserts that they are strictly liable in tort for placing petroleum fuel and ICEs on the market knowing they are to be used without inspection for defects, and as a result of design defects injure people. n229 The petro manufacturers claim that their conduct was reasonable will not relieve them of liability, only the existence of injury caused by a defect in their products is the focus of the liability inquiry. n230 The strict-liability theory that California adopted in 1968, embodied in the *Restatement (Second) Section 402A*, provides in pertinent part: n231

(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer . . . is subject to liability for physical harm thereby caused to the ultimate user or consumer . . . if (a) the seller is engaged in the business of selling such a product, and (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

(2) The rule stated in Subsection (1) applies although (a) the seller has exercised all possible care in the preparation and sale of his product, and (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

[*42] A "defect" under products liability may take the form of mismanufacture, failure to give adequate warnings or instructions for safe use, defective design or formulation, or failure to truthfully represent the quality of the product. n232 A mismanufacturing-defect claim alleges a product is not made in accord with its intended design. n233 In warning-defect claims, as some tobacco plaintiffs alleged, liability is dependent on consumers' behavior changing if provided with appropriate warnings. n234 Neither of these factual claims appears applicable to the facts of petro tort litigation. A design-defect claim, however, as California alleged in its tobacco claim, alleges that the harm arises from the design of the product itself, and this appears to be a perfect fit for petro plaintiffs' claims. n235 Petro plaintiffs might be able to sue ICE and petro fuel manufacturers in a design-defect suit, arguing that the defects of the automotive and fuel generation designs are the unnecessary production of significant amounts of toxic chemicals and greenhouse gases, which lead to plaintiffs' harms from breathing polluted air and global warming. n236

In California, two legal methods are used to determine if a product's design is defective: the risk-benefit test and the

consumer-expectation test. n237 Under the risk-benefit test, the design is defective if an inherent danger in the design of a product outweighs the benefits of the [*43] design. n238 Under the consumer-expectation test, the design is defective if the product fails to perform as safely as an ordinary user would expect when used in an intended or reasonably foreseeable manner. n239 The latter test is applied in California cases when the ordinary consumer has a reasonable experience or expectation about an element of the product's performance claimed to be defective, but it is not usually applied if the alleged defect is complex and technical. n240 Although the *Third Edition of the Restatement of Torts* rejects the consumer-expectation test as an independent theory, the California Supreme Court declined to overrule it and established it as an independent and alternative test for a product defect. n241

The consumer-expectation test's requirement that the product be in a condition not contemplated by the ultimate consumer is based on the ultimate consumer having "ordinary knowledge common to the community" as to the product's characteristics. n242 This basis became a turning point in the tobacco litigation when it was discovered the tobacco industry was deceiving consumers as to their product's characteristics, thereby preventing consumers from learning of the characteristics. n243 Similarly, petro plaintiffs may be able to demonstrate that the petro industry has deceived consumers by creating a public smokescreen that alternatives are [*44] unavailable and their products are environmentally friendly. n244 For instance, the petro industry, similarly to the tobacco industry, knows of the many harms caused by the use of their products, yet many companies have ad campaigns touting themselves as eco-friendly. Further, they currently fight efforts at increasing fuel economy standards, have not made alternatives available, and may even have conspired to keep safer alternatives off the market. n245 Further, numerous hidden harms may exist that the petro industry is aware of but fails to make known to its consumers. Examples of hidden health harms include that fact that ordinary drivers probably do not realize the health harms caused by petroleum emissions. n246 Hidden cost externalities are found in the fact that ordinary drivers probably do not realize what a trip to the store really costs. n247 Global warming is a hidden harm because ordinary drivers probably do not realize that a history of emissions is associated with each gallon in the extraction, refining, and transport processes. n248 Additionally, underground storage tanks ("USTs") are literally and figuratively a hidden harm because ordinary drivers probably do not know that USTs exist, much less that they leak pollutants. n249 Ordinary drivers probably do not realize the extent of harm caused by oil refineries or the extent of harm occurring in other countries because of oil use. n250 Finally, retail gas outlets are hidden harms because ordinary drivers probably do not realize consumer overfills at gas outlets, as well as jobber overfills of underground storage tanks, are significantly [*45] contributing to groundwater, river, and ocean pollution. n251 Just as in the tobacco litigation, if it is shown that petro plaintiffs' are being deceived, and safer alternatives are being kept off the market by the industry itself, the petro industry may not be able to assert a persuasive assumption-of-risk defense. n252 In sum, petro defendants may argue that consumers have no real expectations about the risk of such harm, so the consumer expectation test should not be applied; petro plaintiffs may counter that just as in the tobacco tort litigation, the petro industry should be held accountable since it has concealed and hidden the harms and alternatives. n253

Additionally, petro plaintiffs may argue that an ordinary consumer has a reasonable expectation when buying a car that the ICE performs safely and when buying fuel that it does not cause health and global harms. In support of their claims, petro plaintiffs may be able to compare petroleum fuel to asbestos and other hazardous substances that release toxic byproducts to convince the court that, as in those cases, the consumer expectations test applies here. n254 Regarding asbestos, the courts have found that the emission during normal use of toxic respirable fibers that were capable of causing a fatal disease constituted a product failure that violated the commonly accepted assumptions of ordinary consumers. n255 If this is found to be true in petro tort litigation, petroleum defendants' claimed inability to design petroleum fuel in a different [*46] way would be irrelevant, as California "neither requires nor allows proof of the existence of a better design under the consumer expectation test." n256

Whether the analysis regarding the ICE of what is "reasonably safe for its intended use" should include anything other than that related to the transportation of people and things on roadways is doubtful according to dicta in some legal opinions. n257 One court held social realism never extended the scope of an automobile manufacturer's duty beyond the highway to a problem not exclusively related to vehicular use, such as air pollution. n258 While this interpretation of "social realism" may have changed since that 1972 opinion, applying even this interpretation to the scope of petroleum fuels "intended use" indicates a close connection with air pollution. This seems to be supported by the reaction cigarettes go through that falls within its intended use: the burning of tobacco as compared to the burning of gasoline. The only alteration to petroleum fuel occurs when it is being used for its intended use; thus, a consumer reasonably could be said to have an expectation about the way fuel burns.

Alternatively, if a court decides the risk-benefit test is appropriate, the court will weigh such factors as feasibility and cost of alternative designs against the inherent risk of harm. n259 As discussed *supra*, the harms from petro use are

arguably significant. n260 In assessing the feasibility of an alternative design the petro plaintiff may be able to adduce evidence that alternative designs currently exist. A court will judge their availability against standards at the time of marketing. n261 For past damages a petro plaintiff's claim, therefore, may have to focus on older [*47] feasible technologies, such as electric cars, multi-valve engines, and lighter automotive components. n262 With current availability of hydrogen fuel, the possibility of obtaining some relief against petroleum fuel manufacturers is likely. Certain claims against ICE manufacturers that allege they are producing fuel-inefficient vehicle designs may also be a viable argument under this test. n263 Targeting vehicle engine manufacturers is particularly likely as alternative engine types have been around for years. n264 Under strict-liability principles, evidence that the manufacturers "acted as reasonably prudent manufacturers would have under the circumstances will not preclude the imposition of liability." n265 This is true "if, upon hindsight, the trier of fact concludes that the product's design is unsafe to consumers, users, or bystanders." n266

For strict liability, under either test, to prove that a product is defective in design it must be shown that the product's design is unreasonably dangerous to the consumer. n267 This does not mean that all dangerous objects fail this test. Even dangerous products, such as a knife's sharp edge, are not necessarily design defects. n268 One defense the petro industry may raise is that since no feasible way exists to burn petroleum products without emitting carbon dioxide and harmful toxins, they are inherently dangerous features of the product, such as a knife's sharp edge, and are therefore excluded from design defect liability. n269 An "inherent feature of a product" such as a knife's sharp edge, however, is distinguishable from toxic by-products. The dangerous design [*48] of the knife blade is the function for which it was created, and with care it may be used without harmful by-products; in the case of petroleum fuel, the harm is a side product of the design's functionality and the design of the product results in harm despite careful use.

In petro tort litigation, which defective design test the court decides is appropriate would likely have a significant impact on the outcome of the litigation. Under the consumer-expectation test, the California petro plaintiffs may show evidence of an objective condition of the product, and the factfinder may then determine whether the product meets ordinary expectations. n270 In contrast, under the risk-benefit test, even if the product satisfies the consumer's expectations, if the factfinder decides on the basis of expert testimony that the product contains excessive, preventable danger or its risk outweighs its benefit, it still is considered defective. n271 Thus, whereas under the consumer-expectation test, the factfinder draws the conclusion, under the risk-benefit test the expert must draw the link between the unreasonable dangerousness of the product and the harm caused. n272 Consequently, a defective design claim may be successful under strict-liability theory using the consumer-expectation test but not using the risk-benefit test. n273 For example, in *Whiteley v. Philip Morris Inc.*, although the jury found the defendant companies liable on a negligent-design theory, the court of appeal reversed the judgment. n274 It ruled that "consumers' safety expectations could be shaped only by the package warnings," which federal law governed, and therefore competent expert testimony [*49] had to fill the causation gap between the negligent design and the alleged harm. n275 The court found the plaintiff's expert witness had failed to establish that the asserted design defect of the cigarettes more likely than not was a substantial factor causing the lung cancer. n276 Since the case could not be tried on a consumer-expectation theory, the jury could not bring their common experience and expectations to measure. n277 Thus, the plaintiff's assertion that smoking in general was the cause of harm was insufficient, since no jury speculation (consumer expectation) was allowed. n278 Evidence that the tobacco companies had developed but failed to use methods to lower addictive properties of cigarettes, and that cigarette smoking and lung cancer have a dose-response relationship, was also found to be insufficient. n279 Under the risk-benefit test expert testimony must specifically prove the defective nature of the product's design. n280

4. Nuisance Cause of Action

Although California did not use nuisance as a cause of action in its tobacco claim, many other states did. n281 Using nuisance law in the mass products context had little support in case law and this unknown potential liability may have significantly contributed to the defendants' unacceptable risk of losing, thereby inducing them to settle. n282 Since the tobacco litigation, however, nuisance law has been applied successfully in mass product litigation against lead [*50] paint, handgun, and MTBE manufacturers. n283 Application of nuisance law to petro litigation may be especially fitting because for over 900 years common-law nuisance liability has covered offenses involving environmental interferences with the public health and comfort and in particular with "widely disseminated bad odors, dust, and smoke." n284 California codified common-law nuisance liability in *Civil Code Section 3479*: n285

Anything which is injurious to health, including, but not limited to, the illegal sale of controlled substances, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin, or any public

park, square, street, or highway, is a nuisance.

Modern cases liberally construe this section, n286 because, as courts have noted, whether a given activity "is a nuisance cannot be determined by any fixed general rule" n287 and liability "depends upon the facts of each particular case." n288 A court will look at such things as the nature of the activity, "the extent and frequency of the injury, the effect upon the enjoyment of health and property, and other similar factors." n289 Liability attaches not only to one who intentionally [*51] creates or maintains a nuisance, but also to one who assists in its creation or maintenance. n290 Cases hold that it is unfair to deny an injured person redress simply because she cannot prove how much damage each tortfeasor did when it is certain that among them they did it all. n291

Nuisance law is broken into two fields of tort liability: private nuisance and public nuisance. n292 An actor's conduct may incur liability in either or both. n293 A public nuisance is "one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal." n294 In contrast, every nuisance not included in this definition of public nuisance is private. n295 Prosser's distinction between the two has been followed in California cases: "a private nuisance is a civil wrong based on a disturbance of rights in land," as opposed to a public nuisance, which is dependent "on an interference with the rights of the community at large." n296 In determining whether something is a public nuisance, the focus is on whether an entire neighborhood or community, or at least a considerable number of persons, is affected, and whether an act or omission to act interferes with that community's interests, comfort, convenience, or health. n297 Similarly, *Section 821B of the Restatement (Second)* defines a public [*52] nuisance as "an unreasonable interference with a right common to the general public." n298 Thus, under the *Restatement (Second)*, liability is precluded specifically, and only, for injuries to individuals not exercising a public right, and for reasonable interference with such rights. n299

Petroleum pollution at times involves use of property in a way that harms the property interests of others, so a private-nuisance claim may be appropriate in some situations. More commonly, however, the facts of petro litigation clearly involve the public-nuisance criteria of "anything, which is injurious to health" and "the comfortable enjoyment of life or property" affecting "at the same time an entire community." n300 Further, California's public-nuisance statute and the *Restatement's* definition are general enough to include as the cause of interference the producing, marketing, and distributing of products. Thus, this Comment will explore public nuisance law's applicability to petro litigation.

The first critical element in any public-nuisance suit, which appears to be easily satisfied by petro litigants, is not that it affects large numbers of people, but that it invades rights that are common to members of the general public. n301 As quoted in a recent California case, *Section 821B of the Restatement (Second)* identifies five "categories of public rights," the unreasonable interference with which may constitute a public nuisance: the public health, the public safety, the [*53] public peace, the public comfort or the public convenience." n302 Petro litigants could assert claims based on interference with each of these rights. The enjoyment of the natural environment is probably included within the right to public comfort, peace, and health. n303 The right to be free from injury and disease, from contaminated groundwater, and from smog appears to be encompassed within all five recognized public rights. n304

Of course, not every interference with a public right constitutes a public nuisance. Petro litigants seeking to press a common-law tort claim for public nuisance must also show the interference is both substantial and unreasonable. n305 California courts follow the approach of the *Restatement (Second)* to determine what meets this level of interference. n306 The requirement of substantiality is formulated as proof of "significant harm," defined as a real and appreciable invasion of the plaintiff's interests, one that is definitely offensive, seriously annoying, or intolerable. n307 An objective measure is applied: "If normal people in that locality would not be substantially annoyed or disturbed by the situation, then the invasion is not a significant one." n308 To judge the unreasonableness of an interference, a handful of factors is taken into account to decide if the gravity of harm the interference inflicts is outweighed by the social utility of the [*54] situation. n309 Once again, objectivity is sought: "The question is not whether the particular plaintiff found the invasion unreasonable, but whether reasonable persons generally, looking at the whole situation impartially and objectively, would consider it unreasonable." n310

Petro defendants may argue that the harm to the public's health and environment caused by use of petroleum products would not disturb a normal person and that the social value of the defendants' product outweighs any small amount of harm inflicted. As a counterargument, plaintiffs could argue that the defendant's conduct reaches a level of unreasonable interference because each of the factors in *Section 821B of the Restatement (Second) of Torts* is met. Three factors described in *Section 821B* are used by California courts to determine whether a particular interference is "unreasonable":

(a) whether the conduct involves a *significant* interference with the public health, the public safety, the public peace, the public comfort or the public convenience, or

(b) whether the conduct is proscribed by a statute, ordinance or administrative regulation, or

(c) whether the conduct is of a *continuing nature or has produced a permanent or long-lasting effect, and, as the actor knows or has reason to know, has a significant effect upon the public right.* (emphasis added).

Producing, manufacturing, and distributing products that, as designed, create smog and other air pollution in areas of common public use could be held to significantly interfere with the public health, peace, comfort, and safety. n311 Since the 1950s, the petro industry has created public health harms and it continues to produce these harms at an ever-growing pace, so its actions probably also meet the long-lasting effect factor. n312 Further, the petro defendants' conduct is also partially responsible for climate change and the hole in the ozone layer, which also arguably [*55] significantly interfere with the public health and public peace. n313 The majority of the scientific community could support the position that both interferences satisfy any definition of long-lasting. n314 Furthermore, it may be possible to argue that death, illness, and a hole in the atmosphere so significantly affect the public that no social value could outweigh the effect; especially, since the defendants have the ability to sell alternative designs that do not cause these harms. Thus, nuisance suits brought by petro plaintiffs may be particularly appropriate today since alternative fuel sources are now ready to be used. In sum, if proof of the harms caused by the use of petroleum fuel and ICEs satisfies California's causation standards, the court might easily find the petro defendants' conduct involves interferences both substantial and unreasonable. n315

Another critical element of a public-nuisance suit against the petro industry, for both government entities and private citizens, is standing. Historically, the abatement of a public nuisance was the business of the sovereign acting through its law officers. n316 A private person, however, now has standing to bring a public nuisance suit if he or she has suffered not only special injury, but also damage different in kind -- rather than in degree -- from that shared by the general public. n317 A private petro plaintiff who sufficiently alleges such special injury can seek relief in the form of damages and an injunction. n318

Courts have noted that a 1905 amendment to the *California Code of Civil Procedure Section 731* was purposely adopted to empower district attorneys and city attorneys to institute [*56] civil actions for the abatement of public nuisances, and to compel them to do so when directed by the legislative authorities of counties and cities. n319 This bolsters an argument that California's Attorney General should bring a public-nuisance suit against the petro industry if the voters ask for it. Also, since a private attorney is not allowed to bring a public-nuisance suit in the absence of showing damage different in kind from the public, public policy indicates that the state should do so when public rights are being infringed. n320 Without state action, areas of bad air pollution could essentially become zones of sacrifice. Further, California's potential willingness to bring such a suit may be indicated by *California v. American Electric Power, Co., et. al.*, brought in the summer of 2004 as a public nuisance suit against five major power producers for their contribution to global warming. n321

Private petro plaintiffs bringing public nuisance suits must be careful to choose their plaintiff groups, ensuring that the type of special injury alleged is different in kind. A number of special injury claims have not been found to be different in kind. For instance, while proximity to a nuisance may make some plaintiffs suffer greater injury or aggravation of health problems than those suffered by more remote plaintiffs, a finding of injury different in kind is unlikely. n322 Also, allegations of aggravated respiratory disorders, general allergies, and allergies to specific [*57] chemicals have all been found different "in degree," not "in kind" from those suffered by the surrounding community. n323 This is largely because the standard for nuisance liability is that of a "normal person[] of ordinary sensibilities in the community." n324 Fear due to proximity to jet fuel storage tanks at an airport and to pollution from a refinery have also been held not to be different in kind from effects on other individuals in the community. n325

A survey of California cases indicates a finding of special injury often requires extreme or multiple facts acting concurrently to constitute some sort of reprehensible conduct. n326 For example, "trauma resulting from an assault with a gun," gun shot wounds, and both "specific and direct physical and emotional injuries by the shock to [a person's] nervous system upon" witnessing the shooting have been held sufficient. n327 So has the death of a two-year old drowned in a hole filled with water in an improperly maintained flood channel. n328 In another case, it was sufficient

that the plaintiffs alleged a multitude of interferences by the operation of a laundry, such as "noises, odors, blocking of sidewalks, soot and grease deposits," and ill health. n329 Likewise, proximity of some plaintiffs to a source of pollution may reach the level of an injury different in kind from that suffered by others, if the pollution not only leaves deposits on the land of nearby plaintiffs but also deprives them of comfortable use and enjoyment of their homes and is deleterious to their health; or if smoke, odor, and noise all combine to disturb them both in the [*58] comfortable enjoyment of their property and in their occupations. n330 While what amounts to "different in kind" clearly is fact-specific, the broadness of the standard and the variety of the harms caused by petroleum pollution leave a myriad of claims open to the creative petro plaintiff.

Farmers with children in areas with high amounts of traffic may be an ideal plaintiff group. Children are especially vulnerable to health harms caused by petro emissions, n331 stormwater runoff carries exhaust contaminants into farmers' fields, n332 and decreased productivity from local air pollution causes diminished crop yields and would constitute injury to commercial interests. If farm families sue for all of these interferences to their children and crops, the combined injuries would likely be sufficient for standing to assert a claim of public nuisance. n333 Farmer petro plaintiffs could cite Ninth Circuit precedent which found standing for crop farmers under an antitrust statute where the farmers sued automobile manufacturers for injury to their crops. n334 Injury was allegedly caused by a conspiracy to reduce motor vehicle air pollution research and to retard the development of anti-pollution equipment. This precedent is especially persuasive because the court followed Supreme Court precedent granting standing to Georgia in a public nuisance suit. n335

[*59] Farmers are just one example of a group which could attain standing in a petro suit. Some private groups may even be able to allege special injury on behalf of their members, such as nonprofits like the American Lung Association and environmental organizations. n336

a. Public Nuisance Liability in a Mass Products Tort

This last century of industrial boom not only produced products liability law, but it also spawned nuisance suits against product manufacturers. n337 Interestingly, the first suits including nuisance claims against product manufacturers occurred in the 1970's against motor vehicle manufacturers. n338 In fact, a California court issued probably the first published opinion on public nuisance against a product manufacturer for claims for personal injury and property damage caused by pollution from motor vehicles. n339 The court stated that the dismissal did not bar other "similar class action nuisance claims appropriately framed," which implies that a California court may accept some form of a nuisance action concerning petro products. n340 Still, this implication is untested.

[*60] Nuisance claims truly burst upon the mass products tort scene in the tobacco litigation of the 1990s. n341 Similar claims have subsequently been brought against manufacturers of handguns, genetically modified seed corn, methyl-tertiary butyl ether (MTBE is a gasoline additive), lead paint, and herbicides. n342 Courts in Iowa, Wisconsin, and Illinois have all held manufacturers liable for nuisance related to their products beyond the point of sale. n343 Many of the public-nuisance claims upheld against product manufacturers have occurred within the last five years. n344 Some arguments have been made that this expansion of nuisance law to product manufacturers is unsupported by the historical origins of the tort. n345 Based on the prevalence of such suits, however, the argument that tort law has an evolutionary path seems to be prevailing.

Some California cases appear to make product manufacturers' liability under nuisance law dependent upon the accompaniment of some activity by the manufacturer beyond the normal [*61] behavior associated with the manufacture, distribution, and supplying of the product. n346 This has been held to be satisfied, for example, if the defendant manufacturer's equipment is designed to discharge waste in a manner that will create a nuisance. n347 In contrast, this requirement is not satisfied by merely putting an allegedly defective product into the stream of commerce. n348 This subtle difference distinguishes liability for affirmative steps like providing specific instructions to an unsuspecting user, but not for failure to warn. n349 Thus, a petro plaintiff may be able to bring a nuisance action against petro product manufacturers, but the plaintiff must allege something more than that the products had a defect that caused a nuisance by entering the stream of commerce. n350 Alleging that the products were designed to discharge toxins in a manner that will create a nuisance may likely be sufficient. n351 Another possibility is alleging that petro manufacturers purposefully dominated the market, creating a system in which other alternative sources of transport were unavailable to consumers. This creation of a market nuisance theory may be comparable to the nuisance actions courts have allowed against gun manufacturers, distributors, and dealers, based on the theory that in targeting illegal gun purchasers the market they created was a public nuisance. n352

[*62] *b. Proving Defendant's Exclusive Control*

Whether California nuisance law requires a special relationship demonstrating defendant's control over the instrument causing the nuisance appears uncertain. n353 Proximate cause in California does not contain a control requirement; the defendant's act or omission simply must be a substantial factor in causing the harm. n354 This would lead to an analysis similar to that undertaken in determining causation. n355 In the context of nuisances, for instance, it has been held that it is not fatal to a plaintiff's claim under California law concerning handguns if the defendant manufacturer did not control the product at the moment the harm occurred. n356 A defendant's "control of the creation and supply of an illegal secondary market for firearms" has been held to be a sufficiently substantial factor to hold the defendant liable for a person using a gun to shoot someone. n357 One California case recently stated "liability for nuisance does not hinge on whether the defendant owns, possesses or controls the property, nor on whether he is in a position to abate the nuisance: the critical question is whether the defendant created or assisted in the creation of the nuisance." n358

On the other hand, if a court found California nuisance law has a control requirement, factors identified in support of rejecting claims on these grounds suggest a petro plaintiff's case would still pass muster. n359 It has been noted as significant by courts denying nuisance claims **[*63]** against asbestos manufacturers that the defendants no longer controlled the asbestos products and thus lacked the legal right to abate the asbestos hazards because "ownership and control lie exclusively with the plaintiffs." n360 However, petro defendants need not remain in control of their vehicles or petroleum fuel in order to abate tailpipe emissions because they can prospectively redesign their products. Furthermore, arguably a special relationship between the petro defendant and plaintiff exists, as it is foreseeable upon selling a product the buyer will use it.

c. Remedies for a Public-Nuisance Claim in California

All the elements of a common-law public-nuisance action could be satisfied by petro plaintiffs, and the law seems well suited to accommodate petro litigation. Operation of a business in accord with government permission and regulation does not justify the continuance of a nuisance. n361 The fact that other sources of similar discomforts to the plaintiff exist in the community is no defense to a plaintiff's action for public nuisance. n362 And "the adoption of the most approved appliances and methods of production [does not] justify the continuance of that which, in spite of them, remains a nuisance." n363 While the statute of limitations may be pleaded in some cases as a limitation on liability, it is not a defense to a continuing nuisance, since the character of the nuisance gives rise to successive rights of action. n364 In the tobacco litigation, state recoupment actions, including public-nuisance claims, allowed states to pursue such actions **[*64]** because some states are exempt from the statute of limitations and in those that are not, alleging a continuing harm kept the statute from running. n365

Remedies for actions arising out of a nuisance depend upon whether the nuisance is permanent or continuing. n366 If a nuisance is permanent, then *Code of Civil Procedure Section 338(b)* requires the plaintiff to "bring one action for all past, present and future damage within the three years after the permanent nuisance is erected . . . damages are not dependent upon any subsequent use of the property but are complete when the nuisance comes into existence." n367 If, on the other hand, the nuisance is continuing, then every repetition of the continuing nuisance is a distinct wrong, subject to a new and separate limitation period, so the person injured can bring successive actions until the nuisance is abated, even if the original claim is barred; n368 however, recovery is limited to actual injury suffered within the three years prior to commencement of each action and prospective damages are unavailable. n369

The great weight of California authority has articulated the basic distinction between permanent and continuing nuisances in broad terms of whether the nuisance can be discontinued, or abated, "at any time." n370 The nuisance is continuing if it may be discontinued at any time. n371 **[*65]** Court of appeal opinions have explicitly or implicitly recognized that "most cases . . . analyze the condition to determine whether the nuisance/trespass may be discontinued." n372

Modern courts have cited Judge Traynor's opinion in a 1952 case to explain California's rationale behind these distinctions and how courts are to derive these distinctions in cases: n373

"It has been recognized that in doubtful cases the plaintiff should have an election to treat the nuisance as either permanent or not. If the defendant is not privileged to continue the nuisance and is able to abate it, he cannot complain if the plaintiff elects to bring successive actions as damages accrue until abatement takes place. On the other hand, if it appears improbable as a practical matter that the nuisance can or will

be abated, the plaintiff should not be left to the troublesome remedy of successive actions." n374

Petro defendant liability would likely not be reduced by the fact that courts, presumably mindful of the genesis of permanent nuisance as a practical exception to a preferred rule, have maintained a preference for finding a continuing nuisance. n375 This both protects the plaintiff from "contingencies" such as unforeseen future injury and the statute of limitations itself and encourages abatement of nuisances. n376 Also, the courts have consistently adhered to the rule that in a case in which the distinction between permanent and continuing nuisance is close or doubtful, the plaintiff will be permitted to elect which theory to pursue. n377 A sizable damage award is thus very possible under petro plaintiffs' claim for petroleum industry liability based on public-nuisance theory.

[*66] IV. CONCLUSION

"It is one of the happy incidents of the federal system," wrote Supreme Court Justice Louis Brandeis in 1932, "that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country." It was California that demanded clean cars when Washington, D.C., would not. n378 It can be California that makes petroleum fuel and ICE manufacturers liable for the harm they cause, when others will not. It is in fact remarkable that no legal effort has yet focused common-law tort liability on one of the most pervasive sources of pollution on the planet. n379

In particular, alleging petroleum fuel is a defective product and a nuisance is novel, yet its exemption in California from the CAA and its questionable need in the face of alternative fuels such as hydrogen make liability imminent. n380 Consumers suffer from greedy stereotypes as they buy SUVs to feel safe and comfortable, yet fuel-efficient large vehicles are unavailable. n381 The alternative to a petroleum-driven society is a world as clean as a smokeless room. The governor of California, Arnold Schwarzenegger, recently converted his Hummer to run on hydrogen fuel, demonstrating that the utility and bodies of vehicles do not have to change to allow for a more ethical life, just two key components: ICEs and petroleum fuel. n382 The [*67] feasibility of petro tort litigation and its absence in a society suffering so many harms from the use of petro products pose ethical questions for this era concerning this and future generations.

Legal Topics:

For related research and practice materials, see the following legal topics:
TortsTransportation TortsMotor VehiclesPersonal VehiclesTortsNegligenceDefensesAssumption of RiskElements & NatureKnowledge of DangerTortsProducts LiabilityDesign Defects

FOOTNOTES:

n1 Elizabeth Grossman, *Moral Exhaustion*, WASH. POST, Aug. 20, 2000, Book World, at X06.

n2 In this Comment, "petro industry" means manufacturers, distributors, and producers of automobile fuel, diesel fuel, aircraft fuel, kerosene, and similar consumer products and the machines which use them.

n3 Oil refineries are the largest stationary source of volatile organic compounds ("VOCs") in the U.S. MINORITY STAFF OF HOUSE COMM. ON GOV'T REFORM, 105TH CONG., OIL REFINERIES FAIL TO REPORT MILLIONS OF POUNDS OF HARMFUL EMISSIONS i (Comm. Print 1999). They are the "fourth largest industrial source of toxic emissions and the single largest source of benzene pollution". *Id.* Their unreported leaks are the 11<th> largest source of VOC emissions in the US, controlling this illegal pollution could be done at minimal cost, and doing so would be the equivalent of removing 5 million automobiles from the road. *Id.* at ii. Further, almost half of refineries in America are located in "unattainment" areas -- areas that fail to meet federal and state air pollution standards. *Id.* at 6. In 1995, the U.S. Environmental Protection Agency's ("EPA's") "Regulatory Impact Assessment for Petroleum Refineries" concluded that 4.5 million people living within 30 miles of oil refineries are exposed to benzene concentrations in excess of the Clean Air Act's acceptable risk threshold. CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES, CRUDE RECKONING: THE IMPACT OF PETROLEUM ON CALIFORNIA'S PUBLIC HEALTH AND ENVIRONMENT 32 (2000). The American Petroleum Institute in 1994 concluded that 85% of all refineries in the U.S. are the

source of known groundwater contamination. *Id.* at 33. Oceans annually build up approximately 1.47 million tons of oil from oil refinery discharges and transport efforts according to a 2002 report by Harvard. *Id.*

n4 Approximately 38% of the 920,000 underground storage tanks ("USTs") in the U.S. are leaking gasoline and its constituents in every part of the country. Small, Matthew, C., *Should MTBE be Banned or Limited to 3% by Volume in Gasoline?* Mineral Engineering, U.C. Berkeley, U.S. Environmental Protection Agency at <http://petroleum.berkeley.edu/patzek/students/small-research.htm> (last visited Feb. 2, 2005). Many scientists believe that one of the chemicals in these products cannot even be contained in USTs: Methyl Tertiary Butyl Ether ("MTBE"), a known cause of leukemia in humans. Gregory Crofton, *Geology experts believe MTBE cleanup is adding to problem*, Tahoe Daily Tribune, March 17, 2003, available at <http://www.tahoe-dailytribune.com/apps/pbcs.dll/article?Date=20030317&Category=NEWS&ArtNo=303170106&Ref=AR> (last visited Feb. 2, 2005); COMMUNITIES FOR A BETTER ENVIRONMENT, CBE RESOLVES LAWSUIT AGAINST HALF OF CALIFORNIA OIL COMPANIES TO REQUIRE CLEAN-UP OF MTBE (Aug. 20 2001), at <http://www.cbecal.org/alerts/oil/oMTBE082001.shtml> (last visited Feb. 2, 2005). In 2002, a jury labeled MTBE as a defective product and found three companies in South Lake Tahoe poisoned water supplies with MTBE, making thirty-four drinking wells unusable. Seem Mehta, *3 Companies Liable in Tahoe MTBE Pollution*, L. A. TIMES, April 17, 2002, at B7. In Santa Monica, California by the time MTBE was discovered in the city's drinking water wells 80% of the supply had been poisoned. Dan Morain, *California and the West; Boxer Will Ask EPA to Curb Gas Additive*, L.A. TIMES, Dec. 10, 1997, at 3.

n5 The U.S. Department of Energy reports approximately 25 pounds of greenhouse gases are emitted per gallon of gas. Available at www.eia.doe.gov/emeu/aer/txt/ptb0512c.html, (last visited Aug. 22, 2002); Electronic comm. with U.S. Department of Energy fuel economy department, fueleconomy@ornl.gov (Aug. 22, 2003). In 2001, petroleum run engines in the U.S. consumed 799,134,000 gallons of oil per day. *Id.* Thus, in 2001 in the U.S. the total greenhouse gases produced by driving petroleum run vehicles was 19.978 billion tons per day.

n6 See, e.g., Katherine Shaver, *Md. Alters Plan For Connector to Reduce Impacts; 2 Latest Opinions Presented as Being Less Disruptive*, WASH. POST, Oct. 31, 2003, Metro at B07.

n7 See *infra*, notes 53-100. See also, *State of Denial*, THE SACRAMENTO BEE, Apr. 27, 2001, available at <http://www.sacbee.com/denial> (last visited on Feb. 6, 2005).

n8 The U.S. EPA defines toxic substances as "chemicals or compounds that may present an unreasonable threat to human health and the environment. Human exposure to toxic substances can cause a variety of health effects, including damage to the nervous system, reproductive and developmental problems, cancer, and genetic disorders." at <http://www.epa.gov/ebtpages/polltoxicsubstances.html> (last visited Feb. 2, 2005).

n9 See, e.g., First Amended Complaint at 15, *California v. Philip Morris, Inc.*, (No. 97AS03031), and *State of Alaska v. Philip Morris, Inc.*, No. 1 JU-97915 CL, available at <http://www.library.ucsf.edu/tobacco/litigation/> (last visited Feb. 16, 2005).

n10 ELIZABETH G. HILL, WHAT WILL IT MEAN FOR CALIFORNIA? THE TOBACCO SETTLEMENT 2-3 (1999); Robert L. Rabin, *A Sociolegal History of the Tobacco Tort Litigation*, 44 STAN. L. REV. 853, 878 (1992).

n11 Erin Myers, *The Ward, Kershaw and Minton Environmental Symposium: Up in Smoke: Coming to Terms with the Legacy of Tobacco*, 2 J. HEALTH CARE L. & POL'Y 79, 80 (1998).

n12 U.S. Census Bureau, *Statistical Abstract of the United States: 2002*, Doc. No. 891, at <http://www.census.gov/prod/2003pubs/02statab/energy.pdf> (last visited Feb. 14, 2005).

n13 JOHN L. MOORE ET AL., OIL IMPORTS: AN OVERVIEW AND UPDATE OF ECONOMIC AND SECURITY EFFECTS, C.R.S. REP. 98-1, E.N.R. at Table A-1 (1997), available at <http://www.ncseonline.org/nle/crsreports/energy/eng-53.cfm?&CFID=6471470&CFTOKEN=24377660> (last visited Feb. 2, 2005); See also STAFF OFFICE OF TECHNOLOGY ASSESSMENT, ADVANCED AUTOMOTIVE TECHNOLOGY: VISIONS OF A SUPER-EFFICIENT FAMILY CAR, 104TH CONG., at 2 (1995) (stating health benefits of reducing urban ozone concentrations, now estimated to cost \$ 0.5 billion to \$ 4 billion per year).

n14 The courts in both *Naegle v. R.J. Reynolds Tobacco Co.*, 50 P.3d 769, 770-771 (Cal. 2002), and *Myers v. Philip Morris Companies, Inc.*, 50 P.3d 751, 753 (Cal. 2002), held that CAL. CIV. CODE § 1714.45 shielded tobacco companies for a 10-year period from 1987 until 1997, when the legislature amended it so the government could sue on tobacco-related claims. California's suit, filed after the expiration of this statute, *California v. Philip Morris, Inc.*, Case No. 97AS03031, is available at <http://www.library.ucsf.edu/tobacco/litigation/ca/> (last visited on Feb. 8, 2005). The "tobacco industry" refers to the seven major tobacco companies involved in the 1998 settlement. Office of Attorney General, State of California, at <http://caag.state.ca.us/tobacco/index.htm> (last visited on Feb. 8, 2005).

n15 See *Robert L. Rabin*, *supra* note 10, at 868.

n16 *Id.* at 867-74; Rodney R. Moy, *Review of Selected 1997 California Legislation: Tobacco Companies, Immune No More-California's Removal of the Legal Barriers Preventing Plaintiffs from Recovering for Tobacco-Related Illness*, 29 *McGeorge L. Rev.* 761, 764 (1998).

n17 *Id.* at 867-74; Rodney R. Moy, *supra* note 16.

n18 RESTATEMENT (SECOND) OF TORTS § 402A cmt. i., states that regarding strict liability for defective products, "the article sold must be dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics . . . Good tobacco is not unreasonably dangerous merely because the effects of smoking may be harmful . . ." See also *Pritchard v. Liggett & Myers Tobacco Co.*, 350 F.2d 479, 487 (3d. Cir. 1965) (Freedman, J., concurring), cert. denied, 382 U.S. 987 (1966). (Pritchard II). See also *Robert L. Rabin*, *supra* note 10, at 863.

n19 See *Kotler v. Am. Tobacco Co.*, 926 F.2d 1217, 1225 (1st Cir. 1990), petition for cert. filed, 60 U.S.L.W. 3014 (U.S. Mar. 19, 1991) (No. 90-1473); *Semowich v. R.J. Reynolds Tobacco Co.*, No. 86- CV-118, 1988 U.S. Dist. LEXIS 9102, at *17 (N.D.N.Y. Aug. 18, 1988).

n20 Richard L. Cupp, Jr. *A Morality Play's Third Act: Revisiting Addiction, Fraud and Consumer Choice in "Third Wave" Tobacco Litigation*, 46 U. KAN. L. REV. 465, 466-67 (1998); See also *Robert L. Rabin*, *supra* note 10, at 871.

n21 See Report 19890100, RJ Reynolds archives, at

http://www.rjrtdocs.com/rjtdocs/summary_displaywmt?z=1&search=0&stab=summary (last visited on Oct. 23, 2004).

n22 Supplement to Press Release, Tobacco Products Liability Project, Incriminating Cigarette Documents Released (Mar. 26, 1988) (on file with author). (from RJ Reynolds archives, Published Document 19880326); *see Cipollone v. Liggett Group*, 505 U.S. 504 (1992).

n23 *Robert L. Rabin*, *supra* note 10, at 874; *Richard L. Cupp, Jr.*, *supra* note 20, at 465-467.

n24 *Richard L. Cupp, Jr.*, *supra* note 20, at 481.

n25 Supplement to Press Release, Tobacco Products Liability Project, Incriminating Cigarette Documents Released (Mar. 26, 1988) (on file with author). (from RJ Reynolds archives, Published Document 19880326.)

n26 *Id.*

n27 *Id.*

n28 *Id.*

n29 *Id.*

n30 *Id.*

n31 *Id.*

n32 Ed Bean, *Memo Warns of Legal Risk of Smokeless' Cigarettes*, WALL ST. J., Apr. 13, 1988.

n33 *Id.*

n34 Supplement to Press Release, Tobacco Products Liability Project, Incriminating Cigarette Documents Released (Mar. 26, 1988) (on file with author). (from RJ Reynolds archives, Published Document 19880326.)

n35 First Amended Complaint at 14, *California v. Philip Morris, Inc.* CASE CITATION (No. 97AS03031).

n36 Tobacco Products Liability Project, Ten Questions & Answers About Tobacco Liability, 1-2 (on file with author) (explaining that since 60 to 90% of smokers are addicted and/or dependent on nicotine and most smokers have made attempts to break their addiction but find themselves unable to stop and nicotine is more addictive than heroin and far more available, and it is still socially accepted and highly promoted).

n37 *See id.*

n38 First Amended Complaint at 15, California v. Philip Morris, Inc., CASE CITATION (No. 97AS03031).

n39 *See* Tobacco Products Liability Project, Ten Questions & Answers About Tobacco Liability, 2 (on file with author).

n40 First Amended Complaint at 15, California v. Philip Morris, Inc., CASE CITATION (No. 97AS03031).

n41 *Id.*

n42 Medi-Cal is a public medical care program funded 50:50 by the state and federal government. California, as the other states, was suing for its share."When benefits are provided or will be provided to a beneficiary under this chapter because of an injury for which another person is liable, . . . the director [of the Department of Health Services] shall have a right to recover from such person or carrier the reasonable value of benefits so provided." CAL. WELF. & INST. CODE § 14124.71(a) (West 2001).

n43 First Amended Complaint at 23, California v. Philip Morris, Inc., CASE CITATION (No. 97AS03031). The state was able to allege this because the majority of smokers (80 to 90%) "began smoking and became addicted to nicotine as teenagers, before the age of adult responsibility," and "addiction diminishes a person's ability to choose freely and act wisely." Tobacco Products Liability Project, Ten Questions & Answers About Tobacco Liability, 2 (on file with author).

n44 First Amended Complaint at 17, California v. Philip Morris, Inc., CASE CITATION (No. 97AS03031); *See generally* CAL. BUS. & PROF. CODE § 16720 (West 1997).

n45 First Amended Complaint at 17, California v. Philip Morris, Inc., CASE CITATION (No. 97AS03031); *See generally* CAL. BUS. & PROF. CODE § 16720 (West 1997).

n46 Details of this nationwide lawsuit, including the resulting master settlement, are available at <http://www.library.ucsf.edu/tobacco/litigation/> (last visited Feb. 16, 2005).

n47 Richard L. Cupp, Jr., *supra* note 20, at 468.

n48 California's \$ 14 billion share of the settlement is being used towards redressing the harms caused by industry practice that aggressively marketed defective products with disregard for their effects.

n49 Richard L. Cupp, Jr., "Beyond Tobacco Symposium: Tort Issues in Light of the Cigarette Litigation: State Medical Reimbursement Lawsuits After Tobacco: Is the Domino Effect for Lead Paint Manufacturers and Others Fair Game?" 27 *Pepp.L. Rev.* 685 (2000).

n50 Michael L. Rustad, *Smoke Signals from Private Attorneys General in Mega Social Policy Cases*. 51 *DEPAUL L. REV.* 511, 511-512 (2001); See also Edward Winter Trapolin, *Sued Into Submission: Judicial Creation of Standards in the Manufacture and Distribution of Lawful Products -- The New Orleans Lawsuit Against Gun Manufacturers*, 46 *Loy. L. Rev.* 1275, 1279 (Winter, 2000).

n51 See generally *Mavilia v. Stoeger Indus.*, 574 F. Supp. 107, 111 (D. Mass.1983); *Martin v. Harrington and Richardson, Inc.*, 743 F.2d 1200, 1204 (7th Cir.1984); *Patterson v. Rohm Gesellschaft*, 608 F. Supp. 1206, 1216 (N.D. Tex. 1985); see also Lawrence Reed, *"Taxation by Litigation" Threatens Every American Business . . . Including Banks!*, *MICH. BANKER*, June 1, 1999, at 84.; Dahleen Glanton, *NRA, Firearms Industry Work to Fight Cities' Suits*, *CHI. TRIB.*, Feb. 4, 1999, at 5.

n52 See Report 19890100, RJ Reynolds archives, available at http://www.rjrtdocs.com/rjrtdocs/summary_displaywmt?z=1&search=0&stab=summary (last visited on Oct. 23, 2004).

n53 See *infra* notes 54-100 and accompanying text.

n54 JACK DOYLE, *TAKEN FOR A RIDE*, 20 (2000).

n55 JACK DOYLE, *TAKEN FOR A RIDE*, 23 (2000).

n56 D.W. Dockery, C.A. Pope III, *Acute Respiratory Effects of Particulate Air Pollution*, 15 *Annual Review of Public Health* 107 (1994), K. Katsouyanni, G.Touloumi, C. Spix, et al., *Short-term Effects of Ambient Sulphur Dioxide and Particulate Matter on Mortality in 12 European Cities: Results from Times Series Data from the APHEA Project: Air Pollution and Health: a European Approach*. 314 *BMJ* 1658 (1997), J.M. Samet, F. Dominici, F.C. Curriero, I. Coursac, S.L. Zeger, *Fine Particulate Air Pollution and Mortality in 20 U.S. Cities, 1987-1994*, 343(23) *N. Engl. J. Med.* 1742 (2000), Schwartz J, *Air Pollution and Daily Mortality: A Review and Meta Analysis*, 64(1) *Environ. Res.* 36 (1994), D.W.Dockery, C.A. Pope III, X. Xu et al., *An Association Between Air Pollution and Mortality in Six US Cities*, 329 *N. Engl. J. Med.* 1753 (1993), C.A. Pope III, M.J. Thun, M.M. Namboodiri et al., *Particulate Air Pollution as a Predictor of Mortality in a Prospective Study of US Adults*, 151 *Am. J. Respir. Crit. Care Med.* 669 (1995), D. Krewski, R. Burnett, M.S. Goldberg et al., *Reanalysis of the Harvard Six Cities Study and the American Cancer Society Study of Particulate Air Pollution and Mortality: Health Effects Institute Special Report*, Boston: Health Effects Institute (2000), C.A. Pope III, R.T. Burnett, M.J. Thun et al., *Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution*, 287 *JAMA* 1132 (2002).

n57 Agencies listing gasoline and diesel exhaust as carcinogens: The list of "chemicals known to the State of California to cause cancer" can be found at:http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html; Studies finding diesel exhaust causes cancer: California EPA 1998. *Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant. Part B: Health Risk Assessment for Diesel Exhaust*. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Air Toxicology and Epidemiology Section, May 1998; Bhatia R, Lopipero P, Smith AH., *Diesel Exhaust Exposure and Lung Cancer*. *Epidemiology* 9(1):84-91 (1998). Studies finding benzene causes leukemia: Rinsky, RA; Smith, AB; Horning, R; et al., *Benzene and Leukemia: An Epidemiologic Risk Assessment*. *N Engl J Med* 316:1044-1050 (1987). Study linking butadiene and leukemia: Delzell E; Sathiakumar N; Hovinga M., *A follow-up study of synthetic rubber workers*, *Toxicology* 113:182-189 (1996). Other VOCs that cause cancer: Brief summaries of scientific data on many of the compounds in fuels and exhaust have been prepared by the United States Environmental Protection Agency and are available on-line from the Integrated Risk Information System (IRIS): <http://www.epa.gov/iris/index.html>.

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n63 Joy E. Carlson, *Children's Environmental Health Research -- an Introduction*, Environ. Health Perspect. 106, Supplement 3 (June 1998), at <http://ehp.niehs.nih.gov/docs/1998/Suppl-3/intro1.html> (last visited Feb. 13, 2005).

n64 *Id.* Along the same lines, though less documented, wildlife are likely suffering similar impacts from exposure to petro emissions.

n65 Paul C. Judge, *Selling Autos by Selling Safety*, N. Y. TIMES, Jan. 26, 1990, at D1.

n66 JACK DOYLE, TAKEN FOR A RIDE, 236 (2000).

n67 JACK DOYLE, TAKEN FOR A RIDE, 236 (2000).

n68 Elizabeth Grossman, *supra* note 1.

n69 STAFF OFFICE OF TECHNOLOGY ASSESSMENT, ADVANCED AUTOMOTIVE TECHNOLOGY: VISIONS OF A SUPER-EFFICIENT FAMILY CAR, 104TH CONG., at 1 (1995); Excerpt from Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2000, p.4, U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs, United States Environmental Protection Agency, April 2002, *available at* <http://yosemite.epa.gov/oar/globalwarming.nsf/content/emissions.html> (last visited Feb. 13, 2005).

n70 *See, e.g.*, Andrew C. Revkin, *NASA Expert Criticizes Bush on Global Warming Policy*, N.Y. Times, October 26, 2004, at A22.

n71 *Statement of the Global Climate Coalition Before the Senate Committee on Environment and Public Works Hearing on S. 556, the Clean Power Act*, November 1, 2001, at http://epw.senate.gov/107th/Global_Climate_Coalition.htm.

n72 *See supra* notes 28-32 and accompanying text.

n73 *See, e.g.*, Automotive Resources International, Environmental Fleet Technology Newsletter, Volume IV -- Number IX, August 30, 2004, at <http://www.arifleet.com/efnews/ef2004/EF0409.pdf> (last visited Feb. 13, 2005).

n74 *See, e.g.*, George Raine, "Hybrid Buyers are Waiting in the Wings; Environmentally Conscious Line Up to Buy Most Fuel-Efficient Cars," San Francisco Chronicle, April 21, 2004, at A1.

n75 *See, e.g. Statement of the Global Climate Coalition Before the Senate Committee on Environment and Public Works Hearing on S. 556, the Clean Power Act*, November 1, 2001, at http://epw.senate.gov/107th/Global_Climate_Coalition.htm (last visited Feb. 13, 2005)

n76 See *infra* notes 77-100 and accompanying text.

n77 STAFF OFFICE OF TECHNOLOGY ASSESSMENT, ADVANCED AUTOMOTIVE TECHNOLOGY: VISIONS OF A SUPER-EFFICIENT FAMILY CAR, 104TH CONG., at 2-3 (1995).

n78 Moore, J. et al., *Oil Imports: An Overview and Update of Economic and Security Effects*, December 12, 1997, Congressional Research Service Report for Congress, 98-1, at <http://www.ncseonline.org/nle/crsreports/energy/eng-53.cfm?&CFID=19135639&CFTOKEN=76079875> (last visited Feb. 3, 2005).

n79 *Id.*

n80 *Id.* (Ultimately a similar cost analysis to that done in the tobacco litigation would be necessary for exact figures.); See *supra* notes 35-48 and accompanying text.

n81 INTERNATIONAL CENTER FOR TECHNOLOGY ASSESSMENT, THE REAL PRICE OF GAS *available at* <http://www.icta.org/projects/trans/rlprexsm.htm> (last visited Feb. 8, 2005). ICTA is a think tank founded the Jacques Ellul Society. See generally Tom Doggett, *Real Cost Of U.S. Gasoline Is \$ 15.14 Per Gallon?*, REUTERS, Nov. 18, 1998.

n82 *Id.*

n83 Mark A. Delucchi, *Environmental Externalities of Motor-Vehicle Use in the US*, JOURNAL OF TRANSPORT ECONOMICS AND POLICY, Vol. 34, part 2, Publication No. UCD-ITS-RP-00-14 at 135-168 (2000).

n84 *Id.*

n85 *Id.*

n86 McCubbin, Donald R. and Mark A. Delucchi, *The Health Costs of Motor Vehicle Related Air Pollution*, JOURNAL OF TRANSPORT ECONOMICS AND POLICY, Publication No. UCD-ITS-RP-99-16 (1999).

n87 Jane V. Hall, et al, *Valuing the Health Benefits of Clean Air*, Science, Vol. 255, Issue 5046, 812-817 (Feb. 14, 1992).

n88 *Id.*

n89 *Id.*

n90 INTERNATIONAL CENTER FOR TECHNOLOGY ASSESSMENT, THE REAL PRICE OF GAS *available at* <http://www.icta.org/projects/trans/rlprexsm.htm> (last visited Feb. 8, 2005). ICTA is a think tank founded the Jacques Ellul Society. *See generally* Tom Doggett, *Real Cost Of U.S. Gasoline Is \$ 15.14 Per Gallon?*, REUTERS, Nov. 18, 1998.

n91 *Id.*

n92 *See, e.g.*, John J. McAleese III, *Using the Freedom of Information Act in Superfund cases; Tactical Approaches to Evidence*, ENVIRONMENTAL COMPLIANCE AND LITIGATION STRATEGIES, 1 (Mar. 1996).

n93 *Id.*

n94 Mark A. Delucchi, *Environmental Externalities of Motor-Vehicle Use in the US*, JOURNAL OF TRANSPORT ECONOMICS AND POLICY, Vol. 34, part 2, Publication No. UCD-ITS-RP-00-14 at 135-168 (2000).

n95 INTERNATIONAL CENTER FOR TECHNOLOGY ASSESSMENT, THE REAL PRICE OF GAS *available at* <http://www.icta.org/projects/trans/rlprexsm.htm> (last visited Feb. 8, 2005). ICTA is a think tank founded the Jacques Ellul Society. *See generally* Tom Doggett, *Real Cost Of U.S. Gasoline Is \$ 15.14 Per Gallon?*, REUTERS, Nov. 18, 1998.

n96 *Id.* The nature of petro dependence breeds a social structure of long, inefficient commutes, evidenced by the 1.5 billion gallons of fuel annually -- nearly 36 million barrels of oil -- that the U.S. saved since the 1990s through increased use of public transport. NRDC, *Reducing U.S. Oil Dependence*, at <http://www.nrdc.org/air/energy/fensec.asp#note19> (last visited Feb. 18, 2005). Reduced oil derived transport would reduce suburban sprawl and cut the need for driving. *Id.*

n97 *Id.*

n98 *Id.*

n99 *Id.*

n100 *Id.*

n101 *Michael L. Rustad, supra* note 50, at 517.

n102 *Michael L. Rustad, supra* note 50, at 519; *See* Henry Weinstein & Myron Levin, *Tobacco Companies Flood Internet with Documents Litigation, 27 Million Pages are Posted to Deflect Critics, Charges They're Hiding Damaging Information*, L.A. TIMES, Feb. 28, 1988, at A1; *See generally* *Jackson v. Johns-Manville Sales Corp.*, 781 F.2d 394, 403 (5th Cir. 1986) (holding that in asbestos litigation "punitive damages reward individuals who serve as private attorneys general' in bringing wrongdoers to account.").

n103 See discussion *supra*, Section I.

n104 *City of Chicago v. General Motors Corp.*, 467 F.2d 1262, 1269 n.17 (7th Cir. 1972).

n105 *Id.*

n106 *Oxygenated Fuels Ass'n, Inc. v. Davis*, 163 F. Supp. 2d 1182, 1185 (E.D.Cal. 2001), *aff'd*, 331 F.3d 665 (9th Cir. 2003).

n107 *Escola v. Coca Cola Bottling Co.*, 150 P.2d 436 (1944).

n108 *Diamond v. General Motors Corp.*, 97 Cal. Rptr. 639, 642-643 (Cal. Ct. App.1971); *City of Chicago v. General Motors Corp.*, 332 F. Supp. 285, 288 (N.D. Ill.1971), *aff'd*, 467 F.2d 1262 (7th Cir. 1972). In a similar action initiated by several states before the Supreme Court, the Court declined to exercise original jurisdiction, holding that the issue was best decided locally. *Washington v. General Motors Corp.*, 406 U.S. 109, 116 (1972).

n109 *Diamond*, 94 Cal. Rptr. at 642-643.

n110 *Id.*

n111 *Id.*

n112 *Id.*

n113 *City of Chicago v. General Motors*, 332 F. Supp. at 288.

n114 *Id.* Dictum indicated the court thought unemployment would harm a considerable number of these people. *Id.* However, requiring more stringent air pollution standards, or an alternative energy market, would undoubtedly create jobs. *Id.* Also, a provision in the suit could require that middlemen in the petro market be outfitted with the means to sell the new types of vehicles and fuel at the petro industry's expense. *Id.* The court also felt the city did not adequately represent those individuals who were "strongly attached" to motor vehicles. *Id.* Arguably, those people are not strongly attached but have no choice. *Id.*

n115 See *supra* notes 14-52 and accompanying text.

n116 *Diamond*, 97 Cal. Rptr. at 641-643 & n. 5.

n117 See *supra* notes 58 and 63-64.

n118 See *In re Multidistrict Vehicle Air Pollution*, 481 F.2d 122, 126 (9th Cir. 1973) (in antitrust suit, court held farmers satisfied first requisite of standing under Clayton Act Section 4 for allegation of injury to "business or property" from defendant's conspiracy to eliminate anti-pollution devices).

n119 See, e.g., *Hall v. Norton*, 266 F.3d 969, 971 (9th Cir. 2001) (pro se plaintiff, in averring that his respiratory discomfort will be aggravated by emissions from developments on former federal lands, asserts an injury that is sufficiently concrete and particularized to satisfy standing); *Soc'y Hill Towers Owners' Ass'n v. Rendell*, 210 F.3d 168, 176 (3d Cir. 2000) (holding that "the Residents have alleged concrete and particularized injury in the form of increased traffic, pollution, and noise"); *Sierra Club v. Envtl. Prot. Agency*, 129 F.3d 137, 139 (D.C. Cir. 1997) (holding that interest in being free from increased auto emissions conferred standing).

n120 David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 *COLUM. J. ENVTL. L.* 1, 22 (2003).

n121 See discussion *supra* Section I. Section 14124.71 of the California Welfare and Institutions Code authorizes a public entity to bring a cause of action on behalf of persons receiving medical assistance from a government agency against a third party for reimbursement of medical expenses when the third party is responsible for the injury. In 1998 this provision was used by California in its claim based on products liability against the tobacco industry.

n122 *Cipollone v. Liggett Group*, 505 U.S. 504, 524 (1992).

n123 *Id.*

n124 *Id.* at 516 (quoting *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)).

n125 *Id.* at 524.

n126 *Id.* at 516 (quoting *Jones v. Rath Packing Co.*, 430 U.S. 519, 525 (1977)).

n127 *Id.* at 516 (quoting *Fidelity Fed. Sav. & Loan Ass'n v. De la Cuesta*, 458 U.S. 141, 153 (1982)).

n128 *Id.* at 516-517.

n129 As early as 1907 the United States Supreme Court wrote: "The State has an interest independent of and behind the title of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air . . . It is a fair and reasonable demand on the part of sovereign that the air over its territory should not be polluted . . . that that forests on its mountains . . . should not be further destroyed or threatened . . . that the crops and orchards on its hills should not be endangered. . . ." *In re Multidistrict Vehicle Air Pollution*, 481 F.2d 122, 131 (9th Cir. 1973) (quoting *Ga. v. Tennessee Copper Co.*, 206 U.S. 230, 237-38 (1907) (Court granted State's claim for an injunction, on behalf of mainly private citizen property owners, to enjoin defendant copper mines from discharging noxious gases).

n130 42 U.S.C. § 7545(c)(4)(A) (2004).

n131 CAA § 211(c)(4)(B), 42 U.S.C. § 7545(c)(4)(B). California is the only state that "regulated automotive emissions prior to March 30, 1966. Thus, it is the only state that is eligible for [the] waiver" that exempts it from federal preemption of state regulations of fuel standards under Section 7545(c)(4)(B). *Oxygenated Fuels Ass'n, Inc.*, 163 F. Supp. 2d at 1185 n.2.

n132 *Oxygenated Fuels Ass'n, Inc.*, 163 F. Supp. 2d at 1187.

n133 *Id.* at 1184-85

n134 *Id.* at 1187.

n135 *Id.* at 1186.

n136 *Id.* at 1187-88.

n137 *Id.*

n138 The following policy analysis in support of state retention of authority under the CAA buttresses petro plaintiff's claims against petroleum fuel manufacturers. *See infra* notes 139-165 and accompanying text.

n139 Section 209(b) of the CAA establishing California's waiver from fuel regulation under Section 211(c)(4)(B), while arguably broad enough to cover the manufacture and sale of vehicle and engine parts, has strangely not been asserted. *See, e.g., Engine Mfrs. Ass'n v. South Coast Air Quality Mgmt District*, 541 U.S. 246, 252-258 (2004).

n140 Greenwire, *Clean Air: Car Companies to Sue California Over Emissions Law*, 2004 WL 91332672, Dec. 7, 2004.

n141 *See National Audubon Soc'y v. Department of Water*, 869 F.2d 1196 (9th Cir.1988) (stating that any state nuisance claim addressing substantive law of air pollution under the CAA could be handled in state court); *See also Gutierrez v. Mobil Oil Corp.*, 798 F. Supp. 1280, 1284 (W.D. Tex. 1992) (holding that preemption of state common law claims by the CAA would not further the goals of the CAA or the intent of Congress).

n142 *See infra* notes 143-148.

n143 *Cipollone*, 505 U.S. at 524.

n144 *Engine Mfrs. Ass'n*, 541 U.S. at 257.

n145 See discussion *supra* Section II.

n146 *Id.*

n147 *Cipollone*, 505 U.S. at 528-529.

n148 *Id.*

n149 *Id.*

n150 *Oxygenated Fuels Ass'n Inc., v. Davis*, 331 F.3d 665, 671 (9th Cir. 2003).

n151 42 U.S.C.A. § 7416 (West 2004).

n152 *California ex rel. State Air Resources Bd. v. Dep't. of Navy*, 431 F. Supp.1271, 1293 (N.D. Cal. 1977) (holding that Clean Air Act did not preempt state's air pollution action because state had broad power to implement air pollution strategies), *aff'd* 624 F.2d 885 (9th Cir. 1980).

n153 *Geier v. American Honda Motor Co., Inc.*, 529 U.S. 861, 871 (2000).

n154 See, e.g., *Oxygenated Fuels Ass'n Inc.*, 331 F.3d at 671.

n155 42 U.S.C.A. § 7401(a)(3) (West 2004).

n156 *Washington v. General Motors Corp.* 406 U.S. 109, 114-116 (1972) (quoting 81 Stat. 485, 42 U. S. C. § 1857 (a)(3)).

n157 42 U.S.C.A. § 7401(b)(3) (West 2004) (emphasis added).

n158 CAA Section 304(e), 42 U.S.C. § 1857h-2(e), provides: "Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency)."

n159 *Washington*, 406 U.S. 109; *City of Chicago v. General Motors Corp.*, 467 F.2d 1262 (7th Cir. 1972); *Diamond v. General Motors Corp.*, 97 Cal. Rptr. 639 (1971).

n160 *Washington*, 406 U.S. at 111 & 113 fn 3.

n161 *Id.*

n162 *Id.*

n163 *City of Chicago*, 467 F.2d 1262.

n164 *Id.* at 1265.

n165 *Diamond*, 97 Cal. Rptr. at 642-643 (an appropriately pled common-law claim against defendant automobile manufacturers is not barred).

n166 Peter Manus, *Federalism Under Siege at the Rocky Mountain Arsenal: Preemption and CERCLA after United States v. Colorado*, 19 COLUM. J. ENTL. L. 327, 329 (1994); Gregory M. Romano, Note, "Shovels First and Lawyers Later: A Collision Course for CERCLA Cleanups and Environmental Torts Claims, 21 WM. & MARY ENVTL. L. & POLY REV., 421, 422 (1997).

n167 Gregory M. Romano, *supra* note 166, at 422.

n168 See Carpenter-Presley-Tanner Hazardous Substance Account Act ("CPTHSAA"), CAL. HEALTH & SAFETY CODE § 25300 (Deering's 2005); Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund"), 42 U.S.C. §§ 9601-9628.

n169 In practice the state never uses state law; it always sues under CERCLA. Email Comm. with Cliff Rechtschaffen, Professor of Environmental Law, Golden Gate School of Law (Dec. 12, 2004). CAL. HEALTH & SAFETY CODE § 25317 (West 2005) states expressly that petroleum, crude oil, and crude oil "fractions" are excepted from the Act's reach. *See also KFC Western Inc. v. Meghrig*, 28 Cal. Rptr. 2d 676 (Cal. Ct. App. 1994). Section 101 of CERCLA, 42 U.S.C. §§ 9601 (14) (West 2004) provides "The term "hazardous substance" . . . does not include petroleum, including crude oil or any fraction thereof . . . (21) The term "release" . . . [excludes] emissions from engine exhaust of motor vehicle, rolling rock, aircraft, vessel, or pipeline pumping station engine."

n170 *See, e.g., Rivas v. Safety-Kleen Corp.*, 119 Cal. Rptr. 2d 503 (Cal. Ct. App. 2002) (court held plaintiff's toxic tort claims not preempted by CERCLA but that they failed to meet the statute of limitations).

n171 *Ulvestad v. Chevron U.S.A., Inc.*, 818 F. Supp. 292 (C.D. Cal 1993).

n172 *California ex rel. California Dep't of Toxic Substances Control v. Campbell*, 138 F.3d 772 (9th Cir. 1998).

n173 RCRA or (Solid Waste Disposal Act) §§ 1002-11012, 42 U.S.C. §§ 6901-6992(k).

n174 Section 9002 of RCRA, 42 U.S.C. § 6991b.

n175 CAL. HEALTH & SAFETY CODE § 25299.70 (West 2005).

n176 See, e.g., *Nixon-Egli Equip. Co. v. John A. Alexander Co.*, 949 F. Supp. 1435, 1438 (C.D. Cal. 1996); see also *Tenaya Assocs. v. U.S. Forest Serv.*, No. CV-F-92-5375, 1995 WL 433290 at *6 (E.D. Cal. May 19, 1993).

n177 *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 483 (1996).

n178 See, e.g., *id.* at 485.

n179 *Id.* at 488 (quoting *Transamerica Mortgage Advisors, Inc. v. Lewis*, 444 U.S. 11, 19 (1979)).

n180 A private citizen group could use a Freedom of Information Act Request to obtain the exact differences between money spent on site response and money recovered from the petroleum companies. Government agencies already have access to this information.

n181 *Rodney R. Moy*, *supra* note 16, at 774 (referring to tobacco exemption repealed from Section 1714.45 of the California Civil Code). See also *supra* note 14 and accompanying text.

n182 Search on LexisNexis of Deering's California Codes Annotated, Court Rules, & ALS, Comb. (Oct. 4, 2004).

n183 *Aas v. Superior Court*, 24 Cal. 4th 627, 637 (2000) (citing *MacPherson v. Buick Motor Co.*, 111 N.E. 1050 (N.Y. 1916)).

n184 Gary T. Schwartz, Forward: *Understanding Products Liability*, 67 CAL. L. REV. 435 (1979); Marshall S. Shapo, *A Representational Theory of Consumer Protection: Doctrine, Function and Legal Liability for Disappointment*, 60 VA. L. REV. 1109 (1974); Howard Latin, "Good" Warnings, Bad Products and Cognitive Limitations, 41 UCLA L. REV. 1193 (1994).

n185 Gary T. Schwartz, *supra* note 184; Marshall S. Shapo, *supra* note 184; Howard Latin, *supra* note 184.

n186 David Grossman, *supra* note 120, at 39.

n187 *MacPherson*, 111 N.E. 1050; *Greenman v. Yuba Power Products, Inc.*, 377 P.2d 897 (Cal. 1963). Petro plaintiffs would be amiss to not alternatively allege negligence and strict liability design defect claims against petro manufacturers. Having explored the common law elements of such claims, I analyze only strict liability, which appears to have the greatest likelihood of success and to focus the greatest detail on the elements applicable to both claims, while keeping this comment to a manageable length. The alternative negligence claim deserves and requires its own detailed analysis.

n188 See, e.g., *Bockrath v. Aldrich Chemical Co.*, 980 P.2d 398, 402 (Cal. 1999) (plaintiff alleged exposure to numerous different types of toxic chemicals caused cancer); *Rutherford v. Owens-Illinois, Inc.*, 941 P.2d 1203, 1218-1220 (Cal. 1997) (asbestos litigation); *Whiteley v. Philip Morris, Inc.*, 11 Cal. Rptr. 3d 807, 861-863 (Cal. Ct. App. 2004).

n189 *Cronin v. J.B.E. Olson Corp.*, 501 P.2d 1153, 1157 (Cal. 1972); *Endicott v. Nissan Motor Corp.*, 141 Cal. Rptr. 95, 100 (Cal. Ct. App. 1977); see CACI No. 430 (2004).

n190 *Bockrath*, 980 P.2d at 403-04 (quoting *Rutherford*, 941 P.2d at 1213-1214).

n191 *Rutherford*, 941 P.2d at 1218-1220 & n.11 (applied in asbestos litigation); *Bockrath*, 980 P.2d at 402 (applied in case in which plaintiff alleged exposure to numerous different chemical substances).

n192 *Rutherford*, 941 P.2d at 1218-1219.

n193 *Rutherford*, 941 P.2d at 1218-1220 & n.11 (applied in asbestos litigation); *Bockrath*, 980 P.2d at 402 (applied in case where plaintiff alleged exposure to a variety of toxic chemicals caused cancer); *Jones v. Ortho Pharmaceutical Corp.*, 209 Cal. Rptr. 456, 458 (Cal. Ct. App. 1985); see also *Sparks v. Owens-Illinois, Inc.*, 38 Cal. Rptr. 2d 739, 747-748 and n.11 (Cal. Ct. App. 1995).

n194 *Rutherford*, 941 P.2d at 1219 & fn.11 (applied in asbestos litigation); *Bockrath*, 980 P.2d at 402 (applied in case in which plaintiff alleged exposure to numerous different chemical substances).

n195 See *Rutherford*, 941 P.2d at 1218 (explaining that when all potential tortfeasors are not before the court application of *Summers v. Tice*, 199 P.2d 1 (Cal. 1948), joint and several liability is unfair); *Sindell v. Abbott Laboratories*, 607 P.2d 924 (Cal. 1980).

n196 *Rutherford*, 941 P.2d at 1218-19.

n197 *Id.* See, e.g., *Agency for Health Care Admin. v. Associated Indus. of Fla., Inc.*, 678 So. 2d 1239, 1247 (Fla. 1996) (holding that Florida Medicaid Third-Party Liability Act could use either market-share liability or joint and several liability, but not both).

n198 See, e.g., *Whiteley*, 11 Cal. Rptr. 3d at 862-863. It is also uncertain if the Supreme Court's language in *Rutherford* would be followed exactly. It stated to be a substantial factor the product's contribution to the plaintiff or decedent's risk or probability of developing cancer must be substantial, it need not be a substantial factor actually contributing to the injury. *Rutherford*, 941 P.2d at 1219-1220. *Whiteley* held the plaintiffs must establish to a reasonable medical probability, their illnesses were caused by the toxic exposure. See, *Bockrath*, 980 P.2d 403-404 (remanding case back to the trial court to allow plaintiffs to amend complaints on issue of causation). The uncertainty of the new test on the plaintiff's case has been discussed in *Rutherford*, 941 P.2d at 1218-1219 (the majority stating that the substantial factor standard is so broad convincing a jury each product caused exposure should not be that difficult; the dissent stating the decision will mean many innocent plaintiffs have an insurmountable burden in establishing that exposure to a specific defendant's product was a substantial cause of injury.). See also Jonathan C. Mosher, *A Pound of Cause for a Penny of Proof: The Failed Economy of an Eroded Causation Standard in Toxic Tort Cases*, 11 N.Y.U. ENVTL. L.J. 531 (2003) alleging the ruling invites

any plaintiff to establish cause; and V. Thomas Meador III, et. al., *Anti-Toxins: Defense Counsel in Mass Toxic Tort Cases Can Frequently Prevail By Challenging Plaintiffs' Proof of Both General and Specific Causation*, 26 L.A. LAWYER 33 (2003) (alleging the ruling invites defense counsel to take advantage of the "frequent inability of plaintiffs to prove general and specific causation").

n199 *Rutherford*, 941 P.2d at 1218-1219.

n200 *Whiteley*, 11 Cal. Rptr. 3d at 861-863.

n201 *Bockrath*, 980 P.2d at 402-404.

n202 *Id.*

n203 *See Rutherford*, 941 P.2d at 1216-19; *Whiteley*, 11 Cal. Rptr. 3d at 861-863.

n204 *Vigiolto v. Johns-Manville Corp.*, F. Supp. 1454, 1463 (W.D. Pa. 1986), *aff'd*, 826 F.2d 1058 (3d Cir. 1987).

n205 *See supra*, notes 56-61 and accompanying text.

n206 *Bockrath*, 980 P.2d at 403-404 (quoting *Rutherford*, 941 P.2d at 1214-1215).

n207 *Id.* at 403-04 (quoting *Rutherford*, 941 P.2d at 1214-1215) (citation omitted).

n208 *Id.* at 404 (a case based on a uniform product market share liability as outlined in *Sindell*, 607 P.2d 924 (Cal. 1980), could relieve plaintiff's burden of proving substantial factor to each defendant).

n209 *Barker v. Lull Eng'g, Co., Inc.*, 573 P.2d 443, 453-454 (Cal. 1978). However, the availability of alternative feasible design may come into issue in the context of assessing punitive damages.

n210 *See, e.g., Whiteley*, 86 Cal. Rptr. 2d at 862-864.

n211 *City of Chicago v. General Motors Corp.*, 467 F.2d 1262, 1268 (7th Cir. 1972). Though arguably the court was referring to Illinois products liability law, the same issue exists in California.

n212 *Id.*

n213 STAFF OFFICE OF TECHNOLOGY ASSESSMENT, ADVANCED AUTOMOTIVE TECHNOLOGY: VISIONS OF A SUPER-EFFICIENT FAMILY CAR, 104TH CONG., at 80 (1995).

n214 *Self v. General Motors Corp.*, 116 Cal. Rptr. 575, 578-79 (Cal. Ct. App. 1974) (holding that the placement and welding of the car's fuel tank constituted defective design as manufacturer is required to design his vehicle to minimize unreasonable risks of injury and death).

n215 Laurens Walker & John Monahan, *Sampling Liability*, 85 VA. L. REV. 329, 330-31 (1999).

n216 *Id.*

n217 FLA. STAT. ANN. § 409.910(X) (West 1998); MD. CODE ANN., HEALTH-GEN. I § 15-120 (2004); VT. STAT. ANN. tit. 33, § 1911(f)(5) (2003).

n218 Walker & Monahan, *supra* note 215.

n219 *In re Joint E. & S. District Asbestos Litigation*, 52 F.3d 1124 (2d Cir. 1995); *Brock v. Merrell Dow Pharm.*, 874 F.2d 307 (5th Cir. 1989)(regarding exposure to the drug Bendectin); *Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1387 (D. Or. 1996)(regarding exposure to silicone); *In re "Agent Orange" Prod. Liab. Litig.*, 611 F. Supp. 1223 (E.D. N.Y. 1985), *aff'd*, 818 F.2d 187 (2d Cir. 1987), *cert. denied*, 487 U.S. 1234 (1988) (regarding exposure to herbicide).

n220 *See, e.g., In Re Estate of Ferdinand E. Marcos Human Rights Litigation*, 910 F. Supp. 1460 (D. Haw. 1995), *aff'd, sub nom. Hilao v. Estate of Ferdinand Marcos*, 103 F.3d 767 (9th Cir. 1996); *Zippo Mfg. Co. v. Rogers Imports, Inc.*, 216 F. Supp. 670 (S.D.N.Y. 1963) (statistics based on surveys allowed to establish causation in trademark infringement case).

n221 *See, e.g., Daubert v. Merrell Dow Pharm.*, 43 F.3d 1311, 1320 (9th Cir. 1995); Grossman, *supra* note 120, at 23.

n222 David A. Grossman, *supra* note 120, at 23.

n223 *See, e.g., Rutherford*, 941 P.2d at 1209-1210 (asbestos litigation); *Bockrath v. Aldrich Chemical Co.*, 980 P.2d 398, 402 (Cal. 1999) (alleged exposure to numerous different toxic chemicals cause of cancer); *Whiteley v. Philip Morris, Inc.*, 11 Cal. Rptr. 3d 807, 861-863 (Cal. Ct. App. 2004).

n224 *Rutherford*, 941 P.2d at 1209-1210 (decendent who smoked a pack of cigarettes a day for over 30 years allowed to recover for lung cancer caused by asbestos dust exposure.). In tort actions governed by principles of comparative fault a defendant shall only be severally liable for damages "in direct proportion to that defendant's percentage of fault." Prop 51, Civ. Code Section 1432.2(a) (adopted in 1986).

n225 *Rutherford*, 941 P.2d at 1209-1210.

n226 Congressional Office of Technology Assessment, *Advanced Automotive Technology: Visions of a Super-Efficient Family Car*, OTA-ETI-638, GPO stock #052-003-01440-8, p.60-129 September 1995.

n227 David Slawson, *The Right to Protection From Air Pollution*, 59 S. Ca. L. Rev. 672, 755 (1986).

n228 *Id.*

n229 *Greenman v. Yuba Power Products, Inc.*, 377 P.2d 897 (Cal. 1963).

n230 *Id.*

n231 6 Witkin, Summary of Cal. Law (9th ed. 1988) § 1243, p. 678.) *Jenkins v. T&N PLC*, 53 Cal. Rptr. 2d 642, 645 (Cal. Ct. App. 1996); see, e.g., *Barth v. B.F. Goodrich Tire Co.*, 71 Cal. Rptr. 306, 319 (Cal. Ct. App. 1968).

n232 Gary T. Schwartz, Forward: Understanding Products Liability, 267 *Colum. L. Rev.* 435 (1979); Marshall S. Shapo, A Representational Theory of Consumer Protection: Doctrine, Function and Legal Liability for Disappointment, 60 *Va. L. Rev.* 1109 (1974); Howard Latin, Good Warnings, Bad Products and Cognitive Limitations, 41 *UCLA L. Rev.* 1193 (1994).

n233 David A. Grossman, *supra* note 120, at 39-43.

n234 *Id.*

n235 *Id.*

n236 The legal causation standard is substantiality. All petro defendants that are substantial causes can be found jointly and severally liable for the harm, subject to apportionment if feasible. See discussion *supra* notes 188-228 and accompanying text.

n237 *Pietrone v. American Honda Motor Co.*, 235 Cal. Rptr. 137, 139 (Cal. Ct. App. 1987).

n238 *Anderson v. Corning Fiberglass Corp.*, 810 P.2d 549, 553 (Cal. 1991).

n239 *Barker v. Lull Eng'g, Co., Inc.*, 573 P.2d 443, 453-454 (Cal. 1978). California cases have conceded that this concept of "design defect" is a difficult area of precise definition, so when not compelled by statute, the doctrine's acceptance and the terms of its applicability have been determined to a large extent by the fundamental policies that underlie it, as set out in *Yuba Power Products, Inc.*, and its progeny. *Owens-Corning Fiberglass Corp.*, 810 P.2d 549, 553 (referring to *Yuba Power Products, Inc.*, 377 P.2d 897.)

n240 *Soule v. General Motors Corp.*, 882 P.2d 298, 307-9 (Cal. 1995).

n241 RESTATEMENT (THIRD) OF TORTS (proposed final draft Apr. 1, 1997 Section 2, com. g, p. 29); *Arena*

v. *Owens-Corning Fiberglas Corp.*, 74 Cal. Rptr. 2d 580, 586 (Cal. Ct. App. 1998). But see also *McCabe v. American Honda Motor Co., Inc.*, 123 Cal. Rptr. 310, 312 (Cal. Ct. App. 2002) (holding a product may perform so unsafely that whatever the user may have expected, it certainly wasn't that).

n242 RESTATEMENT (SECOND) OF TORTS § 402A cmt. i.

n243 See *supra* notes 14-34 and accompanying text.

n244 See *supra* notes 65-74 and accompanying text.

n245 See *id.* Evidence such as a suit brought then dropped by the Department of Justice in the 60's suggests the petro industry has in fact conspired to keep safer alternatives off the market. See, e.g., *In re Multidistrict Vehicle Air Pollution v. General Motors Corp.*, 367 F. Supp. 1298 (C.D. Cal. 1973) (state alleged agreement among manufacturers and other acts of delay in development of automobile air pollution control devices).

n246 See *supra* Section II.1.

n247 See *supra* Section II.2.

n248 See *supra* note 5 and accompanying text.

n249 See *supra* note 4 and accompanying text.

n250 See *supra* note 3 and accompanying text. See also, *State of Denial*, THE SACRAMENTO BEE, Apr. 27, 2001, available at <http://www.sacbee.com/denial> (last visited on Feb. 6, 2005).

n251 See, e.g., Steve Fleischli, Summary of Water Quality Concerns Related to Retail Gas Outlets ("RGOs"), (Feb. 2002) (unpublished manuscript, by Santa Monica BayKeeper based on documents provided by the California Regional Water Quality Control Board, on file with author); see also *In re Methyl Tertiary Butyl Ether ("MTBE") Prods.Liab. Litig.*, 175 F. Supp. 2d 593, 599-603 (S.D. N.Y. 2001).

n252 See *supra* note 24 and accompanying text.

n253 See *supra* notes 65-76 and accompanying text.

n254 See, e.g., *Arnold v. Dow Chemical Co.*, 110 Cal. Rptr. 2d 722, 744 (Cal. Ct. App. 2001) (consumer expectation test applied to home pesticides product that caused disability); *Sparks v. Owens-Illinois, Inc.*, 38 Cal. Rptr. 2d 739, 746-747 (Cal. Ct. App. 1995) (consumer expectation test applied to asbestos insulation product that caused fatal disease).

n255 See, e.g., *Sparks*, 38 Cal. Rptr. 2d at 746-747; *Soule v. General Motors Corp.*, 882 P.2d 298, 309-310

(Cal. 1994)

n256 *Arena v. Owens-Corning Fiberglas Corp.*, 74 Cal. Rptr. 2d 580, 586 (Cal. Ct. App. 1998).

n257 See, e.g., *City of Chicago v. General Motors Corp.*, 332 F. Supp. 285, 289 (N.D. Ill. 1971).

n258 *Id.*

n259 *Barker v. Lull Eng'g, Co., Inc.*, 573 P.2d 443, 454-455 (Cal. 1978).

n260 See *supra* notes 53-100 and the accompanying text.

n261 David A. Grossman, *supra* note 120, at 45-46.

n262 *Id.*

n263 *Id.*

n264 STAFF OFFICE OF TECHNOLOGY ASSESSMENT, ADVANCED AUTOMOTIVE TECHNOLOGY: VISIONS OF A SUPER-EFFICIENT FAMILY CAR, 104TH CONG., at 64 (1995).

n265 *Barker*, 573 P.2d 443, 453-457.

n266 *Id.*

n267 *RESTATEMENT (SECOND) OF TORTS § 402A* (1965).

n268 James T. O'Reilly & Nancy C. Cody, *The Products Liability Resource Manual*, 7 (General practice Section, American Bar Association 1993)(citing *RESTATEMENT (SECOND) OF TORTS § 402A* (1965)).

n269 David Grossman, *supra* note 120, at 44 (referring to *RESTATEMENT (SECOND) OF TORTS § 402A* cmt. i (1965)).

n270 *Soule v. General Motors Corp.*, 882 P.2d 298, 305 (Cal. 1995).

n271 *Barker*, 573 P.2d at 454.

n272 *Beshada v. Johns-Manville Prods. Corp.*, 90 N.J. 191, 199 (1982); see also *Whiteley v. Philip Morris, Inc.*,

11 Cal. Rptr. 3d 807, 863-864 (Cal. Ct. App. 2004).

n273 See, e.g., *Whiteley*, 11 Cal. Rptr. 3d at 863-864 (court dismissed negligence claim while stating a strict liability claim based on consumer expectation theory may have been successful).

n274 *Whiteley*, 11 Cal. Rptr. 3d at 834.

n275 *Whiteley*, 11 Cal. Rptr. 3d at 863-864.

n276 *Whiteley*, 11 Cal. Rptr. 3d at 834.

n277 *Whiteley*, 11 Cal. Rptr. 3d at 863-864.

n278 *Whiteley*, 11 Cal. Rptr. 3d at 834.

n279 *Whiteley*, 11 Cal. Rptr. 3d at 863-864.

n280 *Id.*; *Beshada v. Johns-Manville Prods. Corp.*, 90 N.J. 191, 199 (1982).

n281 Donald Gifford, *Public Nuisance as a Mass Products Liability Tort*, 71 U. CIN. L. REV. 741, 747 (2003).

n282 *Id.* at 763-764.

n283 *Whitehouse v. Lead Indus. Ass'n*, No. 99-5226, 2001 R.I. Super. LEXIS 37 (R.I. April 2, 2001) (court upheld public nuisance claim against lead pigment manufacturers and their trade associations); *City of Boston v. Smith & Wesson Corp.*, 12 Mass. L. Rep. 225 (2000) (court held plaintiffs alleged sufficient facts to state a nuisance claim against handgun manufacturers); see also *In Re Methyl Tertiary Butyl Ether Prod. Liab. Litig.*, MDL No. 1358, 2001 U.S. Dist. LEXIS 12192, (S.D. N.Y. Aug. 2001) (court allowed public nuisance claim against oil companies for MTBE); *White v. Smith & Wesson*, 97 F. Supp. 2d 816 (N.D. Ohio 2000).

n284 RESTATEMENT (SECOND) OF TORTS § 821B, cmt. b.; Donald G. Gifford, *supra* note 281, at 775.

n285 CAL. CIVIL CODE § 3479 (Deering's 2004); see *Levine v. City of Los Angeles*, 137 Cal. Rptr. 512, 515 (Cal. Ct. App. 1977) (Section 3479 is declarative of the common law); see also *Li v. Yellow Cab Co.*, 532 P.2d 1226, 1234 (Cal. 1975) (unless contrary intent clearly appears, civil code provisions will be construed to embody common-law decisions).

n286 See, e.g., *Nestle v. City of Santa Monica*, 496 P.2d 480 (Cal. 1972); *Kornoff v. Kingsburg Cotton Oil Co.*, 288 P.2d 507 (Cal. 1955); *Hulbert v. California etc. Cement Co.*, 118 P. 928 (Cal. 1911); *Judson v. L. A. Suburban Gas Co.*, 106 P. 581 (Cal. 1910); *Woods v. Johns*, 50 Cal. Rptr. 515 (Cal. Ct. App. 1966).

n287 *Shields v. Wondries*, 316 P.2d 9, 12-13 (Cal. Ct. App. 1957).

n288 *Id.*

n289 *Id.*

n290 *Selma Pressure Treating Co. v. Osmose Wood Preserving Inc.*, 271 Cal. Rptr.596, 607 (Cal. Ct. App. 1990) (citing *Hardin v. Sin Claire* 47 P. 363 (Cal.1896); *Shurpin v. Elmhirst*, 195 Cal. Rptr. 737, 741 (Cal. Ct. App. 1983)).

n291 See *Ingram v. City of Gridley*, 224 P.2d 798, 804 (Cal. Ct. App. 1950)(quoting Wigmore, Select Cases on the Law of Torts § 153).

n292 RESTATEMENT (SECOND) OF TORTS, Introductory Note to Chapter 40 -- Nuisance. (ALI 1979).

n293 *Brown v. Petrolane, Inc.*, 162 Cal. Rptr. 551, 554-555 (Cal. Ct. App.1980).

n294 CAL. CIVIL CODE § 3480 (2004).

n295 CAL. CIVIL CODE § 3481 (2004).

n296 *Petrolane, Inc.*, 162 Cal. Rptr. at 554-555 (citing Prosser on Torts (3d ed.) at p.594).

n297 See *Eaton v. Klimm*, 18 P.2d 678, 680 (Cal. 1933); *Venuto v. Owens-Corning Fiberglas Corp.*, 99 Cal. Rptr. 350, 354-355 (Cal. 1971); *Biber v. O'Brien* 32 P.2d 425, 427-428 (Cal. Ct. App. 1934).

n298 The history of the public-nuisance approach embodied in the *Restatement (Second) of Torts*, which most states follow, indicates that pollution is at the heart of public nuisance liability. *David A. Grossman, supra* note 120, at 53. "Pollution may be a crime against God and nature . . . by putting in that definition we make it impossible to reach the problem of the black cloud of filth which hangs over my community and, I suspect yours." Presentation of Restatement of Law, Second, Torts, Tentative Draft No. 16, A.L.I. Proc. 287, 291 (remarks of John P. Frank). This statement was made in reaction to a proposed version of the *Restatement's* public nuisance. It reflected the sentiment which resulted in the present version of the definition, specifically adopted to address the issues of air, water and land pollution. J.H. Baker, American Introduction to English Legal History, 352 (2d ed. 1979); Janet Loengard, *The Assize of Nuisance: Origins of American Action at Common Law*, 37 CAMBRIDGE L.J. 144, 145-49 (1978). Donald G. Gifford, *supra* note 281, at 807.

n299 To sustain damages (as opposed to injunctive relief) for a public nuisance, however, a private party must also prove special injury, *see* discussion *infra*, notes 316-340.

n300 *Washington. v. General Motors Corp.*, 406 U.S. 109, 114 (1972) (declaring "air pollution is, of course, one

of the most notorious types of public nuisance in modern experience."

n301 See *CAL. CIVIL CODE* § 3480 (2004) and *CAL. CIVIL CODE* § 3479 (2004); see also Kenneth A. Manaster & Daniel P. Selmi, *California Environmental Law and Land Use Practice* § 1.01 (1991).

n302 *People ex rel. Gallo v. Acuna*, 929 P.2d 596, 604-605 (Cal. 1997) (quoting *RESTATEMENT (SECOND) OF TORTS* § 821B, subd. (2)(a)).

n303 See, e.g., David A. Grossman, *supra* note 120, at 53; see also Bruce Ledewitz & Robert D. Taylor, *Law and the Coming Environmental Catastrophe*, 21 *WM. & MARY ENVTL. L. & POL'Y REV.* 599, 614 (1997); and *Illinois v. Milwaukee*, 406 U.S. 91, 104-05 (1972).

n304 See discussion *supra* Section II.

n305 *People ex rel. Gallo*, 929 P.2d at 604-605.

n306 *Id.*

n307 *RESTATEMENT (SECOND) OF TORTS* § 821F, cmts. c & d; *Shields v. Wondries*, 316 P.2d 9, 12-13 (Cal. Ct. App. 1957). Prosser, *Torts* 389; *RESTATEMENT (SECOND) OF TORTS* § 822. Prosser, *Torts* 411 (2d ed. 1955); *RESTATEMENT (SECOND) OF TORTS* §§ 826-31.

n308 *RESTATEMENT (SECOND) OF TORTS* § 821F, com. d.

n309 See *RESTATEMENT (SECOND) OF TORTS* § 826- 831; *San Diego Gas & Electric Co. v. Superior Court*, 920 P.2d 669, 696-697 (Cal. 1996).

n310 *San Diego Gas & Electric Co.*, 920 P.2d at 696-697 (quoting *RESTATEMENT (SECOND) OF TORTS* § 826, com. c).

n311 See discussion *supra* Section II.

n312 See *id.*

n313 David Grossman, *supra* note 120, at 54.

n314 *Id.* See *supra* notes 53-100 and accompanying text.

n315 See discussion *supra* notes 188-228 and accompanying text.

n316 CAL. CIVIL CODE §§ 3491, 3494; see *California Oregon Power Co. v. Superior Court*, 291 P.2d 455, 463 (Cal. 1955).

n317 CAL. CIVIL CODE §§ 3480, 3493 (2004); *Reynolds v. Presidio R. R. Co.*, 81 P. 1118-1119 (Cal. Ct. App. 1905); see Prosser on Torts (3d ed.) at pp. 608-609.

n318 *Fisher v. Zumwalt*, 61 P. 82 (Cal. 1900).

n319 *Johnson v. V.D. Reduction Co.*, 164 P. 1119, 1120-1121 (Cal. 1917). CAL. CODE CIV. PROC. § 731 states, "An action may be brought by any person whose property is injuriously affected, or whose personal enjoyment is lessened by a nuisance . . . A civil action may be brought in the name of the people of the State of California to abate a public nuisance . . . by the district attorney of any county in which such nuisance exists, or by the city attorney of any town or city in which such nuisance exists . . . and such district attorney, or city attorney, of any county or city in which such nuisance exists must bring such action whenever directed by the board of supervisors of such county or whenever directed by the legislative authority of such town or city."

n320 See, e.g., *People ex rel. Clancy v. Superior Court*, 705 P.2d 347 (Cal. 1985) (holding in a public nuisance abatement action, it was improper, under CAL. CODE CIV. PROC. § 731, for the action to be brought in the name of a private attorney hired by a city to bring the action, instead of bringing the action in the name of the city attorney.).

n321 *Eight States File Global Warming Lawsuit Against Polluters*, THE DAILY RECORD OF ROCHESTER, July 23, 2004.

n322 *Venuto v. Owens-Corning Fiberglass Corp.*, 99 Cal. Rptr. 350, 356-357 (Cal. Ct. App. 1971); *Baker v. Burbank-Pasadena Airport Authority*, 270 Cal. Rptr. 337 (Cal. Ct. App. 1970).

n323 *Venuto*, 99 Cal. Rptr. at 356-357.

n324 *Id.*

n325 *Koll-Irvine Center Property Owners Assn. v. County of Orange*, 29 Cal. Rptr. 2d 664 (Cal. Ct. App. 1994); *Brown v. Petrolane, Inc.*, 162 Cal. Rptr. 551 (Cal. Ct. App. 1980).

n326 LexisNexis search on December 6, 2004, see summary *infra* notes 332-335 and accompanying text.

n327 *Ileto v. Glock, Inc.*, 349 F.3d 1191, 1212 (2003).

n328 *Buchanan v. Los Angeles County Flood Control Dist.*, 128 Cal. Rptr. 770 (Cal. Ct. App. 1976).

n329 *Williams v. Blue Bird Laundry Co.*, 259 P. 484, 485-486 (Cal. Ct. App. 1927).

n330 *Judson v. L.A. Suburban Gas Co.*, 106 P. 581 (Cal. 1910); *Lind v. City of San Luis Obispo*, 42 P. 437 (Cal. 1895).

n331 *See supra*, Section II.1.

n332 *Id.*

n333 *See, e.g., In re Multidistrict Vehicle Air Pollution*, 481 F.2d 122, 126 (9th Cir. 1973).

n334 *Id.* (In antitrust suit court held farmers satisfied first requisite of standing under Clayton Act section 4 for allegation of injury to "business or property" from defendant's conspiracy to eliminate anti-pollution devices.).

n335 *Ga. v. Tennessee Copper Co.*, 206 U.S. 230, 237-38 (1907) (Court granted state's claim for an injunction, on behalf of mainly private citizen property owners, to enjoin defendant copper mines from discharging noxious gases.); *In re Multidistrict Vehicle Air Pollution*, 481 F.2d 122, 131 (9th Cir. 1973).

n336 *See Hall v. Norton*, 266 F.3d 969, 971 (9th Cir. 2001) (pro se plaintiff, in averring that his respiratory discomfort will be aggravated by emissions from developments on former federal lands, asserts an injury that is sufficiently concrete and particularized to satisfy standing); *Soc'y Hill Towers Owners' Ass'n v. Rendell*, 210 F.3d 168, 176 (3d Cir. 2000) (holding that "the Residents have alleged concrete and particularized injury in the form of increased traffic, pollution, and noise"); *Sierra Club v. EPA*, 129 F.3d 137, 139 (D.C. Cir. 1997) (holding that interest in being free from increased auto emissions conferred standing).

n337 *See id.*

n338 *Washington v. General Motors Corp.*, 406 U.S. 109 (1972); *Diamond v. General Motors Corp.*, 97 Cal. Rptr. 639, 642-643 (Cal. Ct. App. 1971).

n339 Donald Gifford, *supra* note 281, at 750 (referring to *Diamond*, 97 Cal. Rptr. at 641).

n340 *Diamond*, 97 Cal. Rptr. at 641-643 and n. 5. It is assumed by context that when the court wrote "private nuisance" in footnote 5 it intended to refer to a "private action" in a "public nuisance."

n341 Donald G. Gifford, *supra* note 281, at 745-47.

n342 *In re Starlink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828 (N.D. Ill. 2002) (refusing to dismiss nuisance claims against distributor of genetically modified seed corn that allegedly "contaminated the entire corn supply of the United States"); *In Re Methyl Tertiary Butyl Ether Prod. Liab. Litig.*, MDL No. 1358, 2001 U.S. Dist. LEXIS 12192, (S.D. N.Y. Aug. 2001) (court allowed public nuisance claim against oil companies for MTBE); *White v. Smith & Wesson*, 97 F. Supp. 2d 816, 829 (N.D. Ohio 2000) (court allowed public nuisance claim against firearm manufactures and denied motion to dismiss for failure to state a cause of action); *Young v. Bryco*

Arms, 765 N.E.2d 1 (Ill. App. Ct. 2001) (court denied motion to dismiss and allowed public nuisance claim against firearm manufacturers); *City of Boston v. Smith & Wesson*, 2000 Mass. Super. LEXIS 352 (Mass. Super Ct. filed July 13, 2000) (slip op.) (refusing to dismiss public nuisance claims at pleading stage against firearms manufacturers); *New York v. Fermenta ASC Corp.*, 608 N.Y.S.2d 980 (N.Y. Sup. Ct. 1994) (court held that whether defendant herbicide manufacturer's product was a public nuisance was a factual question); *City of Cincinnati v. Beretta U.S.A. Corp.*, 768 N.E.2d 1136 (Ohio 2002) (court allowed public nuisance claim against firearm manufacturers and denied motion to dismiss for failure to state cause of action); *Whitehouse v. Lead Industrial Association*, 2001 R.I. Super. LEXIS 37 (R.I. 2001) (court held public nuisance claim factually sufficiently alleged against lead pigment manufacturers and their trade associations).

n343 *Young v. Bryco Arms*, 327 Ill. App. 3d 948 (Ill. App. 1st Dist. 2001); *Northridge Co. v. W.R. Grace & Co.*, 205 Wis. 2d 267 (Wis. Ct. App. 1996); *Page County Appliance Center, Inc. v. Honeywell, Inc.*, 347 N.W.2d 171 (Iowa 1984).

n344 See *supra* notes 346-347; see also *In re Starlink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828 (N.D. Ill. 2002); *White v. Smith & Wesson*, 97 F. Supp. 2d 816 (N.D. Ohio 2000); *Young v. Bryco Arms*, 765 N.E.2d 1 (Ill. App. Ct. 2001); *Johnson v. Arms*, 304 F. Supp. 2d 383 (E.D. N.Y. 2004); *City of Cincinnati v. Beretta U.S.A. Corp.*, 768 N.E.2d 1136 (Ohio 2002).

n345 Donald G. Gifford, *supra* note 281, at 775.

n346 *Ileto v. Glock, Inc.*, 349 F.3d 1191, 1211, fn. 26 (9th Cir. 2003); *City of Modesto Redevelopment Agency v. Superior Court of San Francisco County*, 13 Cal. Rptr. 3d 865, 875-876 (Cal. Ct. App. 2004).

n347 *City of Modesto Redevelopment Agency*, 13 Cal. Rptr. 3d at 875-876 (The court held a party is liable under common law nuisance for "manufacturing a system designed to dispose of dry cleaning solvent wastes improperly or by instructing users of its products to dispose of wastes improperly," but not liable for merely placing "solvents in the stream of commerce without warning adequately of the dangers of improper disposal.").

n348 *Id.*

n349 *Id.*

n350 *Id.*

n351 *Id.*

n352 See, e.g., *Ileto v. Glock Inc.*, 349 F.3d 1191 (9th Cir. 2003); *Gary ex. rel. King v. Smith & Wesson, Corp.*, 801 N.E.2d 1222 (Ind. 2003); *Cincinnati v. Beretta U.S.A. Corp.*, 95 Ohio St. 3d 416 (2002); *Johnson v. Arms*, 304 F. Supp. 2d 383 (E.D. N.Y. 2004).

n353 *Ileto v. Glock, Inc.*, 349 F.3d 1191, 1212 (9th Cir. 2003).

n354 *Id.*

n355 See discussion *supra* Section III.B.3.a.

n356 *Ileto*, 349 F.3d at 1213 (citing *City of Cincinnati v. Beretta U.S.A., Corp.*, 768 N.E.2d 1136, 1143 (Ohio 2002)).

n357 *Id.*

n358 *City of Modesto Redevelopment Agency v. Superior Court*, 13 Cal. Rptr. 3d 865, 871-872 (Cal. Ct. App. 2004) (citing *Newhall Land & Farming Co. v. Superior Court*, 23 Cal. Rptr. 2d 377, 381-382 (Cal. Ct. App. 1993)).

n359 *Detroit Bd. of Ed. v. Celotex Corp.*, 493 N.W.2d 513, 522 (Mich. Ct. App. 1992).

n360 *Id.*

n361 *Williams v. Blue Bird Laundry Co.*, 259 P. 484, 485 (Cal. Ct. App. 1927).

n362 *Judson v. L.A. Suburban Gas Co.*, 106 P. 581, 582 (Cal. 1910).

n363 *Id.* at 583.

n364 *Blue Bird Laundry Co.*, 259 P. at 486-487.

n365 Donald G. Gifford, *supra* note 281, at 788.

n366 Louis C. Klein, Note and Comment: *California's Nuisance Laws and Petroleum Underground Storage Tank Contamination: Will the Ten-Year Statute of Limitations for Construction Defects Change the Playing Field?* 17 WHITTIER L. REV. 107, 125 (1995).

n367 *Baker v. Burbank-Glendale-Pasadena Airport Auth.*, 705 P.2d 866, 870 (Cal. 1985).

n368 *Phillips v. City of Pasadena*, 162 P.2d 625, 626-627 (Cal. 1945).

n369 *Baker*, 705 P.2d at 870; *Mangini v. Aerojet-Gen. Corp.*, 281 Cal. Rptr. 827, 841-842 (Cal. Ct. App. 1991).

n370 *Baker*, 705 P.2d at 870; *Spaulding v. Cameron*, 239 P.2d 625, 627-628 (Cal. 1952); *Phillips v. Pasadena*, 162 P.2d 625, 626-627 (Cal. 1945); *Kafka v. Bozio*, 218 P. 753, 755-756 (Cal. 1923).

n371 *Baker*, 705 P.2d at 870; *Spaulding*, 239 P.2d at 627-628; *Kafka*, 218 P. at 755-756; *Phillips*, 162 P.2d at 626-627.

n372 *Spar v. Pacific Bell*, 1 Cal. Rptr. 2d 480, 482-483 (Cal. Ct. App. 1991); *Mangini*, 281 Cal. Rptr. at 841 (concluding complaint could be amended to meet either rubric).

n373 *Capogeannis v. Superior Court*, 15 Cal. Rptr. 2d 796, 800 (Cal. Ct. App. 1993) (citing Justice Traynor's opinion in *Spaulding*, 239 P.2d 625).

n374 *Id.*

n375 *Baker*, 705 P.2d at 870 (citing *United States v. Dickinson*, 331 U.S. 745, 749 (1947)); *Baker*, 705 P.2d at 872; *Kafka*, 218 P. at 756.

n376 *Baker*, 705 P.2d at 870 (citing *United States v. Dickinson*, 331 U.S. 745, 749 (1947)); *Baker*, 705 P.2d at 872; *Kafka*, 218 P. at 756.

n377 *See, e.g., Mangini*, 281 Cal. Rptr. at 839; *Baker*, 705 P.2d at 870.

n378 Carl Pope, *States Abhor a Vacuum*, SIERRA MAGAZINE, available at <http://www.sierraclub.org/sierra/200407/ways.asp> (last visited Feb. 12, 2005).

n379 *See supra* notes 2-8 and accompanying text.

n380 *See supra* notes 131-137 and accompanying text.

n381 *See supra* notes 73-75 and accompanying text.

n382 Dan Lienert, *Vehicle of the Week: Arnold's Hydrogen Hummer*, Forbes.com, http://www.forbes.com/2005/01/04/cx_dl_0104vow_print.html, (last visited Feb. 1, 2005).