

MTBE and the Need for Effective Tort Law

by Thomas O. McGarity

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Introduction

The continuing congressional debate over whether gasoline manufacturers and distributors should get a free pass from tort liability for fouling hundreds of private and municipal water supplies has once again slowed down the progress of comprehensive energy legislation. Petroleum industry proponents in the U.S. House of Representatives, including House Majority Leader Tom DeLay, have refused to budge from their demand that the industry receive an exemption from products liability lawsuits for the consequences of decades of use of the controversial fuel additive MTBE in gasoline stored in underground tanks that leaked gasoline into soil and groundwater for half a century.

The industry and its congressional proponents take the position that the federal programs for regulating fuel additives and underground storage tanks have produced an efficient and effective regulatory regime that provides adequate protection to neighbors while at the same time ensuring a much-needed predictability for the industry. They argue that the industry should not have to pay hundreds of millions of dollars worth of damages and cleanup costs because the Environmental Protection Agency has consistently allowed MTBE use in gasoline, and during the 1990s “demanded” that it be used in the “reformulated” gasoline required for the areas of the country most heavily affected by smog.

The latter claim is only partially true. This White Paper will demonstrate that EPA never “required” the industry to use MTBE or any other fuel additive in gasoline. The standards that it promulgated pursuant to the 1990 amendments to the Clean Air Act established performance measures for gasoline that could have been met by adding other additives,

such as ethanol, or by retooling the refining process to create a different blend of existing constituents. Moreover, the industry had already been marketing MTBE-laden gasoline for more than a decade prior to any reformulated gasoline requirement to enhance octane ratings and to demonstrate to consumers that the industry could manufacture “environmentally friendly” gasoline.

The industry is correct, however, in pointing out that EPA has never prevented it from using MTBE in gasoline. Insofar as federal regulation is concerned, it has always been perfectly legal to market MTBE-laden gasoline. This, however, is not so much an endorsement of the virtues of MTBE as it is an indictment of the regulatory process as practiced by industry-friendly regulators, and of industry’s persistent and pernicious manipulation of the regulatory process. This white paper will show how an aggressive industry and a pliant agency combined to produce a continuing groundwater contamination crisis of mammoth proportions. The overarching lesson to be learned from the MTBE fiasco is that a robust common law of torts provides an absolutely critical backstop to the protections that government provides to its citizens. Without that backstop, an industry that knows it can dominate the regulatory process will have little incentive to protect public health and the environment.

In short, industry now blames the MTBE crisis on EPA for its failure in the 1980s to keep the chemical out of gasoline. But in the 1980s, industry went to great lengths to make sure EPA allowed it to remain in gasoline. Industry pressed EPA for soft underground storage tank regulations and got them. It avoided reporting to EPA the disturbing results of its own testing on MTBE’s toxicity, and ignored indications of problems with MTBE and drinking

water in order to avoid conducting research that could prove damaging to the bottom line. And it quashed a report by two Maine scientists that identified the MTBE problem so as to avoid triggering further regulation. For its part, EPA in the 1980s days of Anne Gorsuch Burford was a better friend to industry than the environment, so it paid far more attention to industry's concerns than to those of environmentalists. Accordingly, EPA showed little interest in evidence of an MTBE problem in drinking water and delivered to industry exactly the kind of weak regulations it hoped for. Today's MTBE problem is a perfect example of what happens when industry wields too much influence over the regulatory process and when government is disinterested in implementing environmental laws with sensible regulatory safeguards. It is also an example of the important role that common tort law plays in protecting citizens from harm when industry and government fail to do so. Tort law complements health and environmental regulation in many vital ways: it can compensate victims of wrongful conduct in ways regulation rarely does, it can expose evidence of harm and wrongful conduct with tools that regulators are often powerless to invoke, and it can deter wrongful conduct through powerful liability-inspired incentives that are usually lacking in anticipatory regulations.

MTBE and Leaking Underground Storage Tanks

On March 14, 1990, *Chemical Week* declared methyl tertiary-butyl ether (MTBE) to be "the fastest-growing chemical in the world."¹ A decade later, a finding by a California jury that several oil companies were liable for contaminating the water supply of Lake Tahoe led to a \$67 million settlement, and several oil companies tentatively agreed to pay the

City of Santa Monica \$30 million in damages and spend more than \$200 million for a new water treatment plant.² Similar lawsuits are pending throughout the country, and 15 additional states have banned MTBE from gasoline.³ On July 22, 2003, the *Houston Chronicle* reported that one of the largest manufacturers of MTBE had filed for bankruptcy protection.⁴ The story of the spectacular rise and fall of MTBE is the story of massive regulatory failure and gradual common law success.

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Physical Characteristics

Since the late 1970s, some refineries have blended MTBE into gasoline to replace tetra-ethyl lead for the purpose of enhancing octane and thereby preventing engine knocking and resulting performance loss. In the late 1980s, petroleum companies began to blend MTBE into gasoline to meet state and federal winter oxygenate requirements for a limited number of areas that had not attained the National Ambient Air Quality Standard (NAAQS) for carbon monoxide. Beginning in 1989, petroleum companies began to use MTBE in "reformulated" gasoline (RFG) to reduce emissions of volatile organic carbon compounds (VOCs) and oxides of nitrogen (NOx), two precursors of photochemical oxidants. This use was reinforced when the 1990 amendments to the federal Clean Air Act required petroleum marketers to sell RFG in the ten largest metropolitan areas with the most severe summertime photochemical oxidant (ozone) levels. By 2000 more than 30 percent of the gasoline sold in the United States had been reformulated, and about 87 percent of that gasoline contained MTBE.⁵

So long as it is confined to storage tanks and automobile gasoline tanks, MTBE is generally quite benign. If it leaks out of underground storage tanks into groundwater, however, MTBE can become an

environmental nightmare. For example, after discovering MTBE in the wellfields that supplied 50 percent of the city's drinking water, the City of Santa Monica, California had to close the wellfield and import drinking water from elsewhere.⁶ The United States Geological Survey (USGS) in 1999 reported a 27 percent incidence of MTBE-contaminated groundwater in urban areas where MTBE was used substantially.⁷ A 1999 EPA Blue Ribbon Panel reported that between 5 and 10 percent of community drinking water supplies in high MTBE use areas contained detectable amounts of MTBE.⁸

Because MTBE is very soluble in water, it travels much more rapidly in groundwater than the other components of gasoline, such as benzene toluene, ethylbenzene, and xylenes (BTEX). In addition, MTBE is more resistant to biodegradation than BTEX. As a result, MTBE is much more likely than BTEX to contaminate drinking water, and much more difficult to remove from contaminated groundwater than BTEX. Consequently, MTBE releases into the environment "require much more aggressive management and remediation than do spills of conventional gasoline."⁹

Toxicity

MTBE is not a benign chemical. The health effect of greatest concern is cancer. Although no human epidemiological data exists upon which to base an evaluation of MTBE's carcinogenicity, MTBE is carcinogenic in mice and rats through both inhalation and dietary exposure.¹⁰ EPA has concluded that MTBE is a "possible" human carcinogen and has suggested that MTBE "be regarded as posing a potential carcinogenic hazard and risk to humans."¹¹

MTBE has an extremely unpleasant taste and odor, and it is detectable in drinking water at levels as low as 2 parts per billion (ppb).¹² The petroleum industry frequently cites this very low detection threshold as a virtue because many consumers cannot tolerate drinking water contaminated with MTBE at levels high enough to pose a large risk to their health. It is, however, a severe detriment for municipal drinking water providers that discover MTBE in their drinking water supplies. EPA has recommended that

drinking water suppliers keep MTBE below 20 to 40 ppb based upon its taste and odor characteristics, but many states have either banned MTBE in gasoline or established drinking water standards at levels ranging from 5 to 70 ppb.¹³

The Leaking Underground Storage Tank Problem

The primary source of MTBE groundwater contamination is leaking underground storage tanks (USTs) at service stations. In the early days, service station owners stored gasoline in "bare steel tanks" constructed of carbon steel with welded seams. Because carbon steel tanks quickly sprang leaks in corrosive soil environments, tank manufacturers in later years developed various coatings to be applied to the interior and exteriors of steel USTs. Since coated steel tanks could still leak, companies developed "cathodic protection" devices to neutralize underground electrical currents that contribute to corrosion. Owners can now eliminate the threat of corrosion altogether by using fiberglass reinforced plastic (FRP) tanks, but they are brittle and subject to breaking if improperly installed. As with steel tanks, private standard-setting entities have also suggested specifications for FRP tanks. The safest systems employ double-walled steel or FRP tanks with leak detection systems in the interstitial space.¹⁴

The nation began to experience a silent, but very real leaking USTs problem by the mid-1970s.¹⁵ After the problem grew to a crisis over the next decade, Congress enacted the Hazardous and Solid Waste Amendments of 1984 (HSWA) on November 9, 1984 requiring EPA to write regulations for new and existing USTs.¹⁶ EPA's implementing regulations required owners to upgrade existing systems with systems that complied with EPA's new requirements by 1998. The upgrade program had barely been completed, however, when EPA began to receive reports of releases from some upgraded systems due to "inadequate design, installation, maintenance, and/or operation."¹⁷ In May, 2002 the United States General Accounting Office (GAO), since renamed the Government Accountability Office, reported that

USTs were continuing to leak throughout the country.¹⁸

The Failure of Federal Regulation

Throughout the long regulatory history of MTBE, the industry has resisted stringent regulation, and EPA has consistently demonstrated a willingness to provide “flexible” regulatory approaches that gave the industry a great deal of discretion to comply with broad performance standards, some of which were written by the industry itself. The outcome was an unfortunate but entirely predictable contamination of groundwater throughout the United States.

The MTBE Fuel Additive Waiver

The 1977 Amendments to the Clean Air Act made it unlawful after March 31, 1977, to market a fuel for use in catalyst-equipped automobiles that was not substantially similar to the fuels used in the emissions certification process for those vehicles.¹⁹ EPA may waive that prohibition upon a demonstration that the emissions of the fuel do not “cause or contribute” to a failure of the catalytic converter.²⁰ To protect public health, however, EPA has the burden of initiating a rulemaking process and demonstrating that the additive “may reasonably be anticipated to endanger” public health.²¹

On February 23, 1979, EPA approved the Arco Petroleum Company’s waiver petition for MTBE as a gasoline additive based upon a finding that it would not adversely affect vehicle emissions or damage emission control devices.²² Because the waiver was mandatory for any new fuel that did not interfere with pollution control devices, the agency did not consider

any possible adverse effects on air or groundwater quality when it granted the waiver. Moreover, EPA understandably did not initiate any action with respect to MTBE under its authority to protect the public health, because it had no information at the time on which to base an “endangerment” finding. Thus, MTBE entered the gasoline supply without any inquiry at the federal level into the potential adverse health and environmental consequences of that development.

The TSCA Testing Agreement

EPA had authority under section 4 of the Toxic Substances Control Act (TSCA) to order the manufacturer of a chemical substance to conduct specific health and environmental toxicity testing if

EPA determined that sufficient testing was not already available and the chemical might present an unreasonable risk to the environment or would be produced in substantial quantities and enter the environment in substantial quantities or give rise to significant human exposure.²³ The statute also created an Interagency Testing Committee (ITC), composed of representatives of several federal agencies, to nominate federally mandated testing chemicals that met this multi-faceted threshold test.²⁴ Once a

chemical appears on the ITC “priority list” of 50 chemicals, EPA must decide within one year whether to issue a rule ordering further testing.²⁵

By the time that the ITC began its investigation of MTBE in 1985, it was already in heavy use, and the industry had already initiated its own health and environmental testing program for MTBE. In October, 1980, the American Petroleum Institute’s

Toxicology Committee approved several core toxicology tests on inhalation exposure to MTBE as Phase I of a larger two-part project.²⁶ The sponsoring companies, however, consistently balked at suggestions by the API Ad Hoc MTBE Toxicology Group that MTBE be tested in drinking water because they were apparently confident that people would not be exposed to MTBE through that route.²⁷ When the Phase I studies were finished in mid-1984, the industry concluded that the results were “rather unremarkable in terms of causing harm.”²⁸ Instead of moving to Phase II (long-term carcinogenicity studies that might have involved groundwater exposure), the industry decided to see how EPA reacted to the Phase I tests. The API group hoped that the industry’s proactive effort would “preclude . . . an unnecessary test rule by EPA under TSCA.”²⁹

The industry then launched a major effort to avoid an EPA rule requiring “time consuming and expensive” testing.³⁰ On October 31, 1986, the ITC recommended that MTBE be tested for chronic inhalation toxicity, but made no mention of testing in drinking water.³¹ The industry responded that testing for chronic inhalation health effects was “not necessary,” because “worst case” exposures to MTBE from gasoline vapors were “well below the ‘no observable adverse effect level’ even when very conservative safety factors are applied.”³² The industry did not mention the possibility that chronic exposure might occur via ingestion of contaminated groundwater.³³

On December 17, 1986, EPA hosted a “focus meeting” on MTBE at which most of the major industrial players gathered to discuss the possibility of arriving at an agreed upon consent order for performing additional testing on MTBE.³⁴ No representatives of environmental groups attended this or any of the subsequent focus meetings. At the meeting, EPA’s project manager noted that “an additional concern” identified by EPA’s Test Rules Development Branch was “contamination of ground water supplies by MTBE.”³⁵ She related that more than 700,000 USTs were used for petroleum products and “about 30 percent of these tanks leak.”³⁶ The industry representatives, however, insisted that there was no reason to require any additional testing of

MTBE because there should be “very little cause for concern of health hazards with MTBE.”³⁷

After more than a year of additional negotiations, during which the use of MTBE in gasoline steadily increased, EPA published notice of a Consent Order announcing a testing program to which EPA and five major oil companies had agreed. Although the companies agreed to conduct several long-term toxicity tests, they did not agree to conduct any environmental testing, and they agreed to very little in the way of toxicity testing of MTBE in drinking water.³⁸

The USTs Implementation Regulations

In early 1979, when EPA approved MTBE for gasoline, the national media had not yet focused on leaking USTs, and Congress had not yet given EPA any authority to regulate them.³⁹ Yet by as early as 1973, the “subject of underground leaks at service stations” had become “one of growing concern to petroleum marketers.”⁴⁰ In the mid-1970s, API created three task forces to address what was rapidly becoming a serious leaking USTs problem.⁴¹ As a result, some companies began replacing aged USTs as early as the late 1970s.⁴²

As Congress began to react to public pressure to do something about the leaking USTs problem, API strongly resisted new legislation.⁴³ API urged Congress simply to require EPA to promulgate “performance standards” based upon API’s “recommended practices.”⁴⁴ EPA, on the other hand, was not a forceful advocate for a brand new regulatory program during the anti-regulatory years of the Reagan Administration, and the agency urged Congress to refrain from legislating until EPA had a “more refined idea” of how the problem should be addressed.⁴⁵ Congress nevertheless enacted the Hazardous and Solid Waste Amendments of 1984 (HSWA) on November 9, 1984.⁴⁶ Among other things, the statute required EPA to promulgate regulations for new and existing USTs establishing such technical requirements for leak detection and leak prevention “as may be necessary to protect human health and the environment.”⁴⁷

On September 23, 1988, EPA published final regulations establishing technical requirements for USTs.⁴⁸ Noting that the statute authorized EPA to “consider industry practices and consensus codes in developing appropriate UST regulations,”⁴⁹ the agency explained that it had relied “as much as possible” on “familiar industry codes.”⁵⁰ For new and replacement tanks, the final regulations required only protected single-walled tanks with release detection.⁵¹ The protection could come from cathodic protection of a lined steel tank or from fiberglass reinforced plastic construction.⁵² Although the agency agreed with commenters who suggested that “there will probably be more releases to the environment” from single-walled tanks than from double-walled tanks with interstitial monitoring, the more protective option was “not believed to be necessary to protect human health and the environment.”⁵³ Double-walled systems entailed “greater capital and installation costs” that did not “justify” the environmental benefits, and the “current trends in industry” were in any event not in the direction of double-walled tanks.⁵⁴

The regulations required a “gradual” upgrade or replacement of existing tanks over a period of ten years.⁵⁵ Instead of requiring upgrades to the new tank standards, however, EPA allowed owners to meet the upgrade requirements by lining the interiors of existing steel tanks in accordance with industry standards so long as the tanks were tested within the next ten years and at five-year intervals thereafter.⁵⁶ To meet the statutory leak detection requirements, the regulations allowed owners to choose from among six broad leak detection technologies, each of which was required to comply with “method-specific” performance standards.⁵⁷

The petroleum industry was, not surprisingly, “comfortable with” the technical requirements, and it expressed relief that the regulations were so flexible.⁵⁸ Environmental groups, on the other hand, strongly criticized EPA for not requiring new and replacement tanks to be double-walled. They also maintained that EPA gave the industry far too long to replace or upgrade steel tanks. A spokesperson for the Environmental Defense Fund complained that the regulations were designed to minimize the economic impact on the industry, not to protect human health and the environment. Perhaps because they did not want to delay EPA’s implementation of the regulations, however, the environmental groups declined to challenge them in court.⁵⁹

In the early 1980s, leaking underground storage tanks became an especially significant issue in the state of Maine, because more than 95 percent of its population depended upon groundwater for its drinking water. In 1986, two employees of the Maine Department of Environmental Protection (DEP), Peter Garrett and Marcel Moreau, drafted a paper on the extent to which groundwater in Maine was becoming contaminated by MTBE.

The statutory standard clearly required EPA to consider the health and environmental benefits of alternative technical standards because requirements with few benefits

would not be “necessary.” Although the statute did not explicitly require EPA to balance costs against benefits in promulgating the regulations, the agency invoked balancing considerations in its explanation for why it did not require more protective double-walled tank systems. The cost-benefit balancing considerations that the agency employed thus helped ensure that the MTBE continued to flow into groundwater as new and replacement single-walled tanks predictably sprang undetected leaks.

The Attack on Garrett and Moreau

In the early 1980s, leaking underground storage tanks became an especially significant issue in the state of Maine, because more than 95 percent of its population depended upon groundwater for its

drinking water. In 1986, two employees of the Maine Department of Environmental Protection (DEP), Peter Garrett and Marcel Moreau, drafted a paper on the extent to which groundwater in Maine was becoming contaminated by MTBE. The paper reported their findings that MTBE moved faster and farther in groundwater than the other constituents of gasoline and that it was more difficult to remediate. In the “policy” section of the paper, the authors recommended several options for addressing the MTBE groundwater problem, including the option of banning MTBE altogether.⁶⁰ At the very least, it was clear that if MTBE possessed the characteristics that Garrett and Moreau attributed to it, the industry was going to have to spend a lot more money remediating contaminated sites.

Because Garrett had asked Arco Chemical Company, the primary domestic manufacturer of MTBE at the time, for information on MTBE’s physical characteristics as he was writing the paper, the industry was aware of the paper’s existence and of the authors’ broad conclusions long before its publication.⁶¹ In addition, several industry employees attended the conference on Petroleum Hydrocarbons and Organic Chemicals in Groundwater sponsored by API and the National Well Water Association in Houston where Garrett and Moreau first presented their results in a public forum.⁶² API thereafter decided to “try to prevent publication” of the paper in the proceedings of the meeting,⁶³ and David Chen, an API employee who staffed API’s Groundwater Technical Task Force (GWTF), wrote a letter to Mr. Lehr to which he attached comments quite critical of the study.⁶⁴ Arco also launched a major effort “to contain the potential ‘damage’ from this paper, and to develop short term and long term responses to the issues raised in the paper.”⁶⁵ The “damage” to which Arco was referring was the possibility that government agencies would either ban MTBE or require petroleum marketers to use double-walled tanks for gasoline containing MTBE.⁶⁶

Through the API-affiliated Maine Petroleum Council, Arco learned that Garrett and Moreau did not speak for upper level policymakers at the Maine DEP. George Dominguez, the Executive Director of the Oxygenated Fuels Association MTBE Committee,

presented a paper that, in the industry’s view, “refutes/clarifies” many of the Garrett/Moreau conclusions. API agreed to fund “several studies” that would examine some of the issues in the Garrett and Moreau paper. More importantly, Garrett and Moreau redrafted the paper to reflect the industry comments, and the “tone and technical content” of the redraft showed “a substantial improvement over last November’s paper” from the industry’s perspective. In at least one industry representative’s view, Arco and the OFA Committee had produced “sufficient technical data to minimize the potential for any adverse government regulation.”⁶⁷

This industry prediction proved accurate as the federal government refrained from regulating MTBE and in fact took action through the Clean Air Act that had the predictable result of greatly expanding the use of MTBE throughout the country. The industry’s “damage control” efforts to minimize the impact of the Garrett and Moreau study did not come to light until damaged landowners and municipal water providers in the late 1990s filed lawsuits, requested relevant documents, and conducted depositions during which industry employees were obliged to testify under oath about their conduct during the 1980s.

The Reformulated Gasoline Requirements

In the late 1980s, many governmental officials in California advocated replacing conventional gasoline with less-polluting “alternative” motor fuels like methanol to solve that state’s serious air pollution problems and to help avoid future energy crises. Predicting that California might ultimately require drivers to use such alternative fuels, Arco created an internal task force and charged it with developing a clean-burning gasoline product. The result of this effort was an MTBE/gasoline blend called “EC-1,”⁶⁸ which Arco began to market in Southern California in August 1989.⁶⁹ Soon thereafter, Shell Oil Company launched a new “environmental friendly” gasoline, an MTBE-blend called SU2000E, in California and eight other heavily polluted urban markets. By the end of the summer of 1990, the other major companies were, in the words of the head of EPA’s fuel

regulation office, “to some extent tripping over themselves coming out with cleaner products,”⁷⁰ and MTBE had become “the fastest-growing chemical in the world.”⁷¹ All of this took place without the impetus of the federal reformulated gasoline program, which had not yet been enacted.

During the congressional debates over reformulated gasoline, the petroleum industry forcefully argued that Congress should not mandate any one fuel, which industry advertisements labeled “government gas,” but should instead let market forces (presumably as perceived by the petroleum industry) choose the best alternative fuel.⁷² The industry cited Arco’s voluntary development of EC-1 gasoline as evidence for the proposition that industry-developed reformulated gasoline was a preferable alternative to mandatory use of alternative fuels.⁷³ The National Petroleum Refiners Association warned that any congressional mandate that had the effect of drastically changing the composition of fuel would require refiners to expend huge sums to retool their refineries.⁷⁴ Finally, the industry argued that a national distribution system for conventional gasoline already existed, and any congressional mandate for the widespread use of alternative fuels might well require a second extremely costly distribution system for those fuels.⁷⁵

The statute that resulted required EPA to promulgate regulations establishing requirements for “reformulated” gasoline to be used in heavily polluted ozone nonattainment areas. Reformulated gasoline had to have an oxygen content of not less than 2.0 percent by weight, a benzene content of not more than 1.0 percent by volume, and no heavy metals.⁷⁶ The statute did not allow EPA to specify how the industry went about meeting those performance-based standards. Thus, the industry was free to use MTBE or any other oxygenate or mix of gasoline

constituents, so long as the final product met the standards.

In the recent congressional debates over whether Congress should create a shield to protect the petroleum industry against tort liability for MTBE, the industry has taken a radically different position. It now argues that the MTBE in groundwater problem is attributable largely to the fact that EPA required it to use MTBE in reformulated gasoline.⁷⁷ While it is true that the options available to the industry for meeting the Clean Air Act’s requirements for reformulated gasoline are limited, the fact that companies are able to sell reformulated gasoline in states that have

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banned MTBE demonstrates that those alternatives exist at a reasonable cost. The industry could have employed one or more of the non-MTBE alternatives from the outset. More importantly, the industry was rapidly moving toward “environmentally friendly” MTBE/gasoline blends prior to the enactment of the 1990 Clean Air Act

amendments. The industry attempt to rewrite history during the recent debates over the energy bill is part of a larger attempt to avoid accountability for its own business decisions made independent of any federal regulatory requirements.

The Proposed MTBE Ban

Under section 6 of TSCA, whenever EPA finds that the manufacture or use of a chemical substance presents an “unreasonable risk of injury to health or the environment,” it must issue a rule applying “one or more” of eight requirements “to the extent necessary to protect adequately against such risk, using the least burdensome requirements.”⁷⁸ Section 6 is in fact one of the few environmental statutes that clearly requires EPA to apply a cost-benefit decision criterion in deciding how stringently to regulate. Indeed, EPA may adopt only the least stringent of

those requirements for which the benefits outweigh the costs.⁷⁹

By the late 1990s, the MTBE problem had become an environmental disaster in California. In 1999, the Governor of California issued an Executive Order banning MTBE from California gasoline by the earliest possible date.⁸⁰ EPA itself issued an Advance Notice of Proposed Rulemaking on March 24, 2000 soliciting public comments on whether it should ban or limit MTBE under the Toxic Substances Control Act (TSCA).⁸¹ The industry, of course, fiercely resisted this suggestion, arguing that the economic and air quality benefits of MTBE far exceeded its economic and water quality costs.⁸² Although the TSCA action remains on the Unified Federal Agenda,⁸³ the Bush Administration has allowed it to languish there for four years. MTBE remains the petroleum industry's additive of choice for the reformulated gasoline program.⁸⁴

Given the huge hurdle that it will face in justifying a prospective ban under a statute that requires it to demonstrate in advance that the benefits of the ban would outweigh the costs, this lack of activity is not at all surprising. The industry would unquestionably challenge any such ban in the United States Court of Appeals for the Fifth Circuit, a court that effectively prevented EPA from banning asbestos, a chemical with a long history of adverse health effects, because the agency could not persuade the court that a ban would pass the cost-benefit test.⁸⁵ Given the wealth of information on the adverse health effects of asbestos and the comparative dearth of information on the adverse economic and environmental effects of MTBE (due in part to the tentativeness of EPA's 1988 testing requirements), it is hard to imagine that a ban on MTBE would survive judicial review in that court.

Lessons Learned from the MTBE Fiasco

The MTBE story has at least three important lessons for those who are interested in effective regulatory protections for the public health and the environment. And all three of those lessons point

precisely in the opposite direction of where congressional proponents of MTBE liability waivers appear to be heading. Whether the people of the United States benefit from those lessons will depend upon how willing most senators and representatives are to learn from the not-so-distant past.

Lesson One: It's not just about predictability; it's also about control

Risk-producing companies and their allies in academia and the think tanks frequently stress the desirability of uniform national rules to provide the predictability necessary for long-term investment decisions.⁸⁶ "We don't care how stringently you regulate," the argument goes, "just so long as the rules are the same for everyone and they are the same throughout the country." Companies say that they are not opposed to health, safety and environmental regulation; they just want a level playing field throughout the country.⁸⁷

The record belies the rhetoric, however. When well-financed multinational corporations play the regulation game at the federal level, they care very much about how stringently the government regulates. As between corporate interests and representatives of the potential victims of corporate misbehavior, the playing field is not especially level at the federal level. The monetary resources and expertise available to the regulated industries in the typical EPA or OSHA rulemaking far exceed those available to public interest groups and even major labor unions. Especially during the past two decades, regulated entities and their trade associations have wielded sufficient power in Washington D.C. to ensure that the restrictions that federal regulatory agencies impose upon their products and activities are not especially stringent.

Regulatory agencies are policymaking entities that advance the policies of the President, and they are politically accountable both to the President and to the various congressional committees that oversee their activities and appropriate their funds. Judges and juries, by contrast, are supposed to be neutral decisionmakers operating in an institutional context that is consciously designed to be politically

unaccountable. While corporate tort defendants typically have more resources to devote to litigation than the typical plaintiff, the practical impact of the resource disparity may not be as large in the context of litigation, especially when institutional actors like state attorneys general are involved. Companies understand that large campaign contributions and behind-the-scenes lobbying are less likely to sway local judges and juries than congresspersons and regulatory agency heads.

The petroleum industry dominated the decisionmaking process for granting the MTBE waiver and for deciding how much testing should be done for MTBE's environmental effects. Indeed, there is no evidence that public interest groups made their views known to the agency at either juncture. The potential adverse effects of MTBE on groundwater were mentioned (by EPA's staff) during the TSCA testing negotiations, but EPA failed to order groundwater-related testing. That decision may be attributable to the absence of an environmental group at the bargaining table. During the heyday of the deregulatory Reagan Administration, when EPA was busily undoing existing environmental protections, the environmental groups were fully occupied with fighting rearguard actions, and they had few resources left to devote to forestalling future catastrophes. The industry effectively persuaded EPA to adopt a "see no evil" policy, and MTBE-containing gasoline began to leak into aquifers.

The industry was also heavily involved in EPA's attempts to write standards for leaking underground storage tanks, and those regulations relied to an unprecedented extent on industry-promulgated standards. A few environmental groups did participate in these important and highly publicized proceedings, but they failed to persuade EPA during the waning years of the Reagan Administration that the environmental benefits of double-walled USTs "justified" the added costs. This outcome guaranteed

that leaking would continue well into the next century.

The MTBE experience teaches that society cannot rely exclusively upon the regulatory process to protect it from the future adverse environmental effects of

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decisions that regulated industries make today. Although regulatory agencies were created specifically for the purpose of protecting citizens from the long-term effects of short-term decisions, they face enormous pressures from the regulated industries to

minimize today's costs even at the expense of tomorrow's environmental benefits. EPA's regulatory response to the looming MTBE crisis provided all of the predictability that the industry desired, but it also reflected the substantial degree of control that the industry had over the regulatory process.

Another lesson to take away from the MTBE experience is that potential victims cannot rely exclusively upon public interest groups to ensure that regulatory agencies reduce long-term environmental risks through the regulatory process. Even when they are invited to participate, nonprofit public interest groups are always spread very thinly, and it is impossible for them to keep up with every scientific development relevant to the regulations that they try to follow. They must focus on the issues they (and their funders) deem most important at the time. Unfortunately, MTBE in groundwater did not become one of those issues until the late 1990s, when MTBE began to show up in the groundwater of Santa Monica, California and other communities. Ironically, the most severely adversely affected interest in the MTBE story, the owners of water wells threatened with MTBE contamination, was not represented in any of these rulemaking efforts. Because they were unaware of the threat that MTBE posed to their interests when EPA was deciding whether to allow MTBE in gasoline, whether to require additional testing and whether to require double-walled tanks

and stringent leak detection, the national associations of municipal drinking water suppliers did not become involved in the regulation of gasoline additives and USTs until the late 1990s, long after many thousands of gallons of MTBE were already in the ground.

Lesson Two: It's not just about efficiency; it's also about fairness

Regulated industries and their allies in the think tanks argue that the government should not impose controls unless it can demonstrate that the benefits of such controls outweigh the costs.⁸⁸ Thus far, however, they have been largely unsuccessful in persuading Congress to impose a cost-benefit decision criterion on health, safety and environmental regulation. They have been remarkably successful, however, in a more “sophisticated sabotage” of the implementation of existing statutes by persuading Presidents to require agencies to engage in detailed cost-benefit analysis of regulations subject to centralized review in the Office of Management and Budget, a requirement that the Unfunded Mandates Reform Act of 1995 made mandatory for “major” federal regulations.⁸⁹ Consequently, although the regulatory agencies are rarely required to choose an option that meets the cost-benefit test, they face strong pressures to select from among the options that meet the cost-benefit test in the required analyses.

The professed goal of cost-benefit analysis is regulatory results that are efficient in the sense that they maximize the resources available to society.⁹⁰ The theoretical basis for allocative efficiency as a regulatory goal was provided decades ago by two economists, Nicholas Kaldor and John Hicks, who argued that a change is efficient if, at the end of the day, the winners win more than the losers lose. This is so because the change increases the net resources that are available to all human beings by the difference between the winners’ winnings and the losers’ losses. In theory, the winners could compensate the losers and everyone would come out ahead.

While this efficiency-oriented view of regulation is attractive in theory, it becomes much less attractive in practice because nothing in the theory requires that

the winners actually compensate the losers. A change is efficient if it results in an additional one million dollars in the pocket of Bill Gates and it takes \$9,999 from 100 people with yearly incomes of \$20,000. Without some explanation for how such a change would increase the welfare of everyone, a government-sanctioned change would probably appear highly inequitable to most “unsophisticated” observers. Even if the policy is better for society overall, why should the winners not be asked to compensate the losers? If the winners are blameworthy in bringing about the change or otherwise undeserving of the benefits derived, the case for mandated compensation is even stronger.

Tort law can provide the vehicle through which such compensation can be required. This compensation function of the common law is entirely unrelated to regulatory law as currently practiced. Regulatory agencies do not require persons injured by regulated products or activities to be compensated for their losses, even when the conduct at issue violates specific legal requirements that the agencies have established. Tort law can, at the very least, reinforce the mandates of regulatory law by requiring compensation for losses attributable to violations of regulatory standards. It can, however, go beyond regulatory law to require compensation even when it cannot be shown that the product or activity is Kaldor-Hicks inefficient if safer alternatives, such as a simple warning, are available at a cost that is not grossly disproportionate to the cost of more “efficient” alternatives.

The Lake Tahoe lawsuit and the many pending lawsuits brought by municipalities for damage to municipal treatment systems have demonstrated that MTBE from leaking USTs has caused a great deal of damage. The industry has already paid more than \$100 million in settlements, and, in the absence of legislation granting it relief from pending lawsuits, it could wind up paying out more than \$1 billion in judgments and settlements. None of this compensation would have been required by the regulatory system. More importantly, none of the damage that has given rise to the lawsuits demanding compensation was prevented by a regulatory system

that at several critical junctures was dominated by efficiency concerns.

The winners of the regulatory decisionmaking process at the federal level were the regulated petroleum companies that received the benefits of reduced testing, lax UST regulations, and the continuing availability of MTBE. The losers were municipalities and individual landowners who suffered large economic losses. Even if we posit that EPA made the “right” decisions from an efficiency perspective, fairness considerations demand that the winners compensate the losers.

Lesson Three: It's not just about protection; it's also about accountability

Congress created regulatory agencies like EPA to protect society from the risks posed by their products and activities. The regulated industries and their allies in the think tanks often argue that because federal regulatory agencies have the expertise to evaluate those risks and put them in the proper perspective they should have the exclusive authority to address those risks. State courts and juries, the argument continues, are wholly lacking in the technical expertise needed to make sound policy judgments about the social acceptability of the risks that their products and activities pose to human health and the environment. Therefore, if a federal agency determines that a particular product or activity comes up to federally mandated protective standards, state juries should not be permitted to mandate more stringent requirements indirectly through tort actions. In short, juries should not be in the business of second-guessing the judgments of the expert regulatory agencies to which Congress has delegated the power to determine the social desirability of risky products and activities.⁹¹

In the area of health, safety, and environmental regulation, however, Congress seldom explicitly establishes the federal regulatory standard as an absolute maximum beyond which states are prohibited from protecting their citizens. Indeed, Congress frequently explicitly allows the states to require more than the federal minimum by way of state regulation or common law liability.⁹² Similarly,

the Supreme court has recognized a general presumption against federal preemption of state common law that recognizes the “historic primacy of state regulation of matters of health and safety.”⁹³

This presumption against preemption makes a great deal of sense for many reasons. First, the regulatory process is an extraordinarily cumbersome process that is exceedingly easy to derail. For that reason, it is very difficult for agencies to update their rules rapidly enough keep up with scientific developments. This is especially true in the case of new products and activities where the regulatory action is necessarily based upon preliminary tests. Second, there is much evidence that companies are quite adept at manipulating the regulatory process to achieve the regulatory results that they desire.⁹⁴ Much of this evidence of manipulation comes from tort litigation where inquisitive lawyers gain access to company documents through aggressive discovery. The agencies become aware of this manipulation long after the fact, if at all, because they rarely initiate equivalent investigations into industry underreporting and deception on their own. Tort litigation provides a unique vehicle for revealing corporate malfeasance and for holding companies accountable for misrepresenting or withholding from public view critical facts concerning the adverse health and environmental effects of their products and activities.

The litigation brought by municipalities and others produced the documents that made it clear that the companies were attempting to bend the relevant science to their own ends and that they were planning to rely heavily on MTBE for purposes of replacing lead in gasoline and meeting consumer demand for “environmentally friendly” gasoline regardless of the Clean Air Act requirements. EPA was unaware of the industry’s “damage control” efforts at the time it was deciding whether to require additional MTBE testing, and both Congress and EPA remained unaware of those efforts during the time that they were enacting and implementing the 1990 amendments to the Clean Air Act. Indeed, it is clear that the public would never have become aware of those efforts in the absence of tort litigation aimed at compensating victims for economic loss suffered from leaking underground storage tanks.

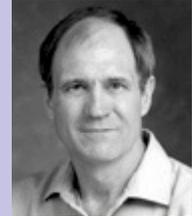
EPA would not have held the companies accountable for attempting to bend science, for installing 50 years' worth of faulty underground storage tanks, and for making a bad choice in marketing "environmentally friendly" gasoline even if those activities had come to light apart from tort litigation. EPA's primary function is to prevent health and environmental harm before the fact. It is not at all equipped to hold companies accountable for causing health and environmental harm after the fact. That is the function of tort law. In urging Congress to shield it from after-the-fact tort liability, the petroleum industry is seeking to create for itself the best of all possible worlds – a world in which it has a large degree of control over the information available to the relevant regulatory agency and in which it can avoid accountability for any untoward consequences of its actions by shifting the blame to that agency. This may be the best of all possible worlds for the industry, but it is not an especially desirable world for consumers and the environment.

Conclusions

The MTBE experience demonstrates that federal regulation and common law tort liability have complementary roles to play in protecting health, safety and the environment. Regulation can provide protections for consumers and the environment with efficient regulations that provide a degree of predictability for the regulated industries. State tort law allows a fair redistribution of resources from those who market dangerous products and engage in risky activities to those who are damaged when things predictably go astray, and it provides a vehicle for holding companies accountable for malfeasance in a forum that is less subject to control by those risk-producing industries. Both federal regulation and state common law are therefore critically necessary to a properly functioning modern economy. If we follow the advice of the Chamber of Commerce and some conservative think tanks and enact laws intended to discourage tort litigation, consumers and the public will be deprived of a critical source of protection and an essential vehicle for holding corporations accountable for their anti-social conduct.

About the Author

CPR President **Thomas O. McGarity** holds the W. James Kronzer Chair at the University of Texas School of Law. He has taught and written in the areas of Administrative Law, Environmental Law, Occupational Safety and Health Law, Food Safety Law, Science and the Law, and Torts for 25 years. McGarity has served as a consultant and/or advisor to the Administrative Conference of the United States, the Office of Technology Assessment of the U.S. Congress (OTA), the U.S. Environmental Protection Agency, the U.S. Occupational Safety and Health Administration (OSHA), the Texas Department of Agriculture, and the Texas Natural Resource Conservation Commission. With Professor Sidney A. Shapiro, also a Member Scholar of the Center for Progressive Regulation, Professor McGarity designed and helped initiate a rulemaking prioritization process for OSHA rulemaking during the early 1990s. As a consultant to OTA, Professor McGarity helped write the "Regulatory Tools" report that agencies have frequently cited in designing regulatory programs. As a consultant to the Texas Department of Agriculture, McGarity was a primary draftsman of that agency's first farmworker protection regulations in the late 1980s.



Professor McGarity began his legal career in the Office of General Counsel of the Environmental Protection Agency. In the private sector, he served as counsel or consultant in various legal and administrative proceedings to the Natural Resources Defense Council, Public Citizen, the Sierra Club, the American Lung Association, the National Audubon Society, Texas Rural Legal Aid, California Rural Legal Aid, and many local organizations, including, for example, The Bear Creek Citizens for the Best Environment Ever.

Professor McGarity's book, *Reinventing Rationality*, analyzes the advantages and disadvantages of cost-benefit analysis in regulatory decision-making and describes the use of such regulatory impact assessments by federal agencies and the Office of Management and Budget during the Reagan Administration. *Workers at Risk*, co-authored with Sidney A. Shapiro, describes rulemaking, implementation and enforcement in the Occupational Safety and Health Administration from its inception in 1970 through 1990. The book then analyzes OSHA's strengths and weaknesses and makes many recommendations for improving standard-setting and enforcement. McGarity's casebook, *The Law of Environmental Protection*, co-authored with John Bonine, has been used in introductory Environmental Law courses at law schools throughout the country.

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About the Center for Progressive Regulation

Founded in 2002, the Center for Progressive Regulation is a nonprofit research and educational organization of university-affiliated academics with expertise in the legal, economic, and scientific issues related to regulation of health, safety, and the environment. CPR supports regulatory action to protect health, safety, and the environment, and rejects the conservative view that government's only function is to increase the economic efficiency of private markets. Through research and commentary, CPR seeks to inform policy debates, critique anti-regulatory research, enhance public understanding of the issues, and open the regulatory process to public scrutiny. Direct media inquiries to Matthew Freeman at mfreeman@progressiveregulation.org. For general information, send email to info@progressiveregulation.org. Visit CPR's website at www.progressiveregulation.org. The Center for Progressive Regulation is grateful to the Deer Creek Foundation for its generous support of this project and CPR's work in general.



*1200 New York Ave., NW, Suite 400, Washington, DC 20005
202-289-4026 (phone) / 202-289-4402 (fax)*

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