Corporations and industries use various tactics to obscure the fact that their products are dangerous or deadly. Their aim is to secure the least restrictive possible regulatory environment and avert legal liability for deaths or injuries in order to maximize profit. They work with attorneys and public relations professionals, using scientists, science advisory boards; front groups, industry organizations, think tanks, and the media to influence scientific and popular opinion of the risks of their products or processes. The strategy, which depends on corrupt science, profits corporations at the expense of public health. Public health professionals can learn from this strategy how to effectively build scientific and public opinion that prioritizes both good science and the public health. Key words: mass media; industry; ethics, business; lawyers; public relations; liability, legal; public opinion; advisory committees; occupational disease; environmental disease.

INT J OCCUP ENVIRON HEALTH 2005;11:338–348

A corporation that produces or uses materials that have proven deleterious effects on health faces the threat of loss of revenue because of the danger involved. Such a threat may come from regulators concerned with protecting the public health, workers or consumers who have been injured or killed by the product or process, or scientists who are concerned with toxicity. Corporations generally have the best information about their own products, and are usually aware of the safety risks involved. Many corporations decide to produce dangerous commodities regardless of risk, however, and must devise ways to protect their markets and profitability. Over the course of several decades, corporations and industries have developed and refined scientific, legal, and public relations tactics to maintain their ability to make profits despite the dangers posed by their products. Viewed together, these tactics take the shape of a strategy that, although enacted differently by various industries and corporations, has enough commonality to be understood as part of the modus operandi of at least a large proportion of corporations in the United States. The strategy is meant to achieve two main goals: 1) secure the least restrictive possible regulatory environment; and 2) avoid legal liability for worker or consumer deaths or injuries.

The ultimate goal of the strategy is profit maximization, which companies achieve by ensuring favorable market and operating environments. The dissemination of previously secret industry documents produced in toxic tort litigation has made it possible to thoroughly document the strategies employed by various tobacco, asbestos, beryllium, plastic, and chemical companies, their industry organizations, front groups, and industry-funded scientists. Internal documents produced in such litigation provide evidence that the actions of industry have been both deliberate and malign. The success of these strategies over many years is apparent in their continued impact on standard setting, limitation of tort liability, and delay and weakening of regulatory oversight. Utilizing these documents, we examine some of the tactics corporations use to achieve these goals.

Corporations from these industries do not act alone in carrying out such plans. Instead, they work closely with attorneys, usually from giant defense firms, and equally powerful public relations (PR) companies. Several PR and law firms have taken the lead at aiding corporate producers of dangerous goods. These include the law firm of Jones, Day, Reavis and Pogue (Jones, Day) and the PR companies Hill and Knowlton (H & K) and Burson-Marstellar. These firms have used similar techniques and strategies for a number of their corporate clients. For example, when courting Brush Wellman, the major U.S. producer of beryllium, Hill and Knowlton assured the company that it had conducted campaigns “analogous to the beryllium situation,” including:

- asbestos and human health
- saccharin and federal regulation
- dioxin and public health
- lead and public health
- vinyl chloride and cancer”

Both PR and law firms perform duties for corporations that go well beyond the general conception of what their work is. PR firms do not limit themselves to planning media outreach, but also contract scientific studies, plan broad-based legal strategies, create “citizens’ groups” that support the industry or product at hand, and work to discredit scientists seen as oppos-
The triumvirate of corporation–PR firm–legal firm utilizes a number of secondary actors to carry out key tactics, which have been largely successful in providing scientific alibis for dangerous products, by helping companies avoid regulation and liability. The tactics include:

1. Conducting or hiring outside scientists to conduct research designed to show the “safety” of a particular process or product; generate controversy about its effects; and mount attacks on scientists and on scientific work that shows the dangers of the product or process.

2. Organizing groups of industry-friendly “third-party” scientists to support industry’s scientific positions in regulation-setting processes, the courtroom, and public opinion; these are frequently dubbed “scientific advisory boards” (SABs)*

3. Creating and/or utilizing “front” groups, industry organizations, and think tanks to provide an appearance of legitimacy and/or to further objectives.

4. Utilizing and influencing the media to sway popular opinions

This is not a complete list, and a variety of other tactics may also be used to avoid regulation and liability. Corporations may use bankruptcy protection, or restructure their businesses such that the riskiest jobs are conducted by workers for whose injuries the corporation is not legally liable. For example, in “tolling,” a manufacturer sends its chemical product to another company to have it processed, maintaining ownership of the product, but not responsibility for protecting workers.1 While these practices do have serious ramifications for the science of occupational and environmental health, we do not consider them in detail here.†

## FUNDING SCIENTISTS

Globally, industry spends trillions of dollars on research each year. The most money is spent in the United States, where $157 billion was spent on industry-sponsored research of all kinds in 1997.3 It is unclear how much of the total is spent on health and safety research, but we do know that industry far outspends government on health and safety research. While the National Institute of Environmental Health Sciences, the federally-funded agency charged with researching environmental health risks has an extramural research budget of only $462 million, the Chronicle of Higher Education recently reported that “an industry sponsored study done 10 years ago of risks in just one field...cost about ‘half” “that.”4

Corporations rely on scientists and their research in a number of forums; an article or set of articles minimizing the dangers of a product or process will be used to influence regulators, argue against liability in the courtroom, influence subsequent scientific research, and even sway popular opinion. Corporations also depend on scientists to testify in both regulatory hearings and court cases.

The problem with corporate funding is that it can bias scientists in favor of those who pay the bill. Kjergaard and Als-Nielsen have shown that the conclusions of researchers who received funding from a for-profit group were “significantly more positive toward the experimental intervention” than the conclusions of researchers without competing interests.5 These figures may reflect an unconscious bias in favor of sponsors even when no undue pressure is brought to bear on the researchers. More troublesome are several other trends in corporate-sponsored science that point toward deliberate corruption of results.

### Manufacturing Doubt

One of the most common tactics used by corporations and law and PR firms is to contract scientists to pursue questions or analyze in such a way as to generate “controversy” over what would otherwise be clear-cut health risks. As former Assistant Secretary of Energy of Environment, Safety and Health David Michaels has convincingly shown, “doubt is their product.” Michaels points out that the research of firms such as Exponent is regularly used to challenge regulation, not by providing solid evidence that a product or process is safe, but by maintaining, “that evidence is ambiguous, so regulatory action is unwarranted.”6

When faced with evidence that shows the dangers of their products or processes, some corporations or industries have relied on a strategy of creating scientific doubt by raising general questions about the types of evidence that can be relied on to show causation.

For example, in his 1962 paper for R.J. Reynolds Tobacco Company (RJR), Alan Rodgman acknowledged that the “amount of evidence accumulated to indict cigarette smoke as a health hazard is overwhelming. The evidence challenging such an indictment is scant.”7 Rodgman then listed some of the ways the industry discounted the evidence for the “lung cancer–cigarette-smoke proposition”:

---

*We refer to these groups as SABs throughout, whether or not they formally adopted this nomenclature.

†A patient of one of the authors (DE) provides an example of the effect tolling can have on epidemiologic studies. The patient worked at Shintech in Brazoria County, Texas, along the Gulf Coast. Shintech was located across from a Dow plant. Pipes ran back and forth between the two plants, transporting raw material from Dow to Shintech and vinyl chloride from Shintech to Dow. DE’s patient, who developed glioblastoma, is not included in any epidemiologic study involving Dow or VCM.
statistical studies cannot prove cause-and-effect relationship between two factors (a criticism of the epidemiology), mice are not men (a criticism of the biological evidence); metaplasia and hyperplasia do not become cancerous (a criticism of the pathologic evidence); and no experimental evidence exists to show that any cigarette smoke constituent is carcinogenic to human lung tissue at the level present in cigarette smoke (a criticism of the chemical evidence).

The chemical and tobacco industries have stressed the appropriateness of a particular type of evidence according to which type of evidence seemed most favorable to them. Chemical companies in particular have stressed the unique importance of epidemiologic studies in establishing cause-effect relationships. In general, they claim that animal models, molecular understanding, and pathologic data cannot establish cause-effect relationships. According to the Chemical Industry Institute of Technology (CIIT), a private, not-for-profit research organization created and funded by the chemical industry, industry-funded research has been successful in influencing regulators on the acceptability of animal evidence:

In 1992 EPA admitted for the first time that some chemicals causing cancer in laboratory animals are not relevant to human health risks. CIIT strongly influenced the EPA change of attitude.

The chemical industry’s professed reliance on human epidemiologic data is largely due to the fact that such data are difficult to obtain and are time- and resource-consuming, as many toxics-related diseases have latency periods of 20 to 40 years. By the time the studies are completed, patent rights have expired and chemical companies have new (possibly substitute) chemicals to promote.

The tobacco industry, faced with epidemiologic evidence showing a link between cancer and smoking, argued that greater weight should be placed on animal data and/or mechanistic understanding. Occasionally, when chemicals or other toxins, such as benzene or arsenic, are found to cause cancer in man, but not in animals, the chemical industry scientists reverse their arguments and, like the tobacco companies, argue that causation in man cannot be established until scientists produce positive animal studies and understand the exact mechanism of carcinogenesis. Apparently, the only “proof” that will satisfy the chemical or tobacco industries is substantiation that lies one step beyond the existing evidence.

Science to Specification

Science to specification is what we call the scientific work that is carried out with the express purpose of reaching a “conclusion” that supports a corporate or industry regulatory or litigation objective. This research may be conducted in in-house corporate laboratories, nonprofit research institutes, or for-profit “science-for-hire” firms. For example, in the institute’s own words, the chemical industry-funded CIIT is valuable because it “generates data which supports industry positions on risk analysis to modulate federal regulatory demands.”

The work of Dr. Dennis Paustenbach is illustrative of the problems that arise when research is conducted to specification. Dr. Paustenbach is president and founder of the private for-profit consulting firm ChemRisk, Inc., a “consulting firm providing state-of-the-art toxicology, industrial hygiene, epidemiology, and risk assessment services to organizations that confront public health, occupational health, and environmental challenges.” He performed similar services for Exponent Inc.

Much of Paustenbach’s research has been conducted for corporate clients who are faced with liability suits. For example, Exponent described its business as follows:

Exponent serves clients in automotive, aviation, chemical, construction, energy, government, health, insurance, manufacturing, technology and other sectors of the economy. Many of our engagements are initiated by lawyers or insurance companies, whose clients anticipate, or are engaged in, litigation over an alleged failure of their products, equipment or services.

Similarly, ChemRisk advertises that its “scientists and engineers have served as technical advisors to lawyers in all aspects of environmental, occupational, toxic tort, and product liability litigation, including “Technical strategy development, [p]roviding scientific advice, [e]xpert testimony, [s]election and preparation of expert witnesses, [a]ssistance in cross-examining opponent’s expert witnesses.” ChemRisk claims that:

A distinguishing characteristic of our legal support work is our emphasis on conducting original, field research which fills data gaps. This work is usually an essential component in resolving disputes involving chemical, or radiological agents. We have provided support to litigants in some of the most publicized and complex major toxic tort law suits including silicone breast implants, developmental toxicants, beryllium, hexavalent chromium, benzene, asbestos, brake dust, dioxin, various pesticides, and many others.

In the case of Paustenbach’s research, “filling data gaps,” can mean producing science to specification. Instead of beginning with a question and seeking the

---

most accurate possible answer, this research starts with the desired “conclusions.” For example, in 1990 Paustenbach developed a proposal for the American Petroleum Institute and described it as follows:

McLaren/ChemRisk is pleased to provide this proposal to develop an alternative cancer potency estimate for benzene. It is our understanding that API would like us to develop a succinct, yet scientifically compelling, integrated position statement to be used in comments to the state of North Carolina and as a possible springboard for future analyses that could be presented to US EPA and the State of California.

The proposal goes on to explain some of their methods and indicates that comments from API member companies and other API consultants will be incorporated into final published papers.

. . . EPA and OSHA considered benzene to cause all types of leukemia in their development of cancer potency estimates for benzene. . . . The objective of this task is to develop a succinct, compelling position that presents evidence that AML is the only type of leukemia induced by benzene exposure (task 4.1). A meeting with Dr. Richard Irons will be needed in order to discuss the molecular basis for benzene-induced AML (task 4.2).

Deliverable to the API benzene task force: Draft manuscript, suitable for publication in Fundamental and Applied Toxicology. Comments from the Task Force and Dr. Irons will be incorporated into a final document.

This work was published in the scientific literature, without disclosure that the research had been conducted with a foregone conclusion and had been subject to editing by a task force of industry representatives.

The API recently funded two other consultants—Drs. Irons and Wong—to develop research that, “was expected to provide scientific support for the lack of a leukemia risk to the general population, evidence that current occupational exposure limits do not create a significant risk to workers and proof that non-Hodgkin’s lymphoma could not be caused by benzene exposure.” In this case the API held ultimate editorial control. They had the right to prevent the research from going forward if they did not like the interim results.

Science Laundromats

Sometimes consultants are needed to launder other consultants’ work. For example, Dr. Crump served as a consultant for the Asbestos Information Association legal team and testified against OSHA regulations proposed to reduce exposures to asbestos in 1984. Almost 20 years later, Crump and co-researcher Dr. Wayne Berman received a contract from the EPA to develop a mathematical model that would assess the risks of contracting cancer from various forms of asbestos. They concluded that chrysotile asbestos, the type that comprised more than 95% of the asbestos used in the United States, probably does not increase the risk of contracting mesothelioma—the cancer that is almost uniformly associated with exposure to asbestos. While the EPA has not accepted Crump and Berman’s model and while their current official policy states that all asbestos fiber types are equally likely to cause cancer, asbestos companies have already used this paper as the basis for asking courts to dismiss thousands of lawsuits filed by victims.

Asbestos companies that are defendants in Texas filed a legal motion to have the court adopt the Crump model as the standard of causation for all asbestos litigation in that state. It was obvious that Dr. Crump could not testify for the companies in a tort case before the EPA had decided what to do with his model because had he testified for industry sponsors and he would thus have discredited himself as an impartial scientist. Instead, the companies hired Dr. Laura Green’s consulting company, Cambridge Environmental, which describes its litigation services as the design of “technical strategies for arguing the merits of the client’s case and for addressing the likely counter-arguments.”

Dr. Green gave testimony relying on and affirming the validity of Crump’s work. Dr. Green did not disclose that Crump and Berman had based their model on a discredited dose–response analysis that had been created by asbestos-industry–funded researcher J. C. McDonald. The McDonald research had been discredited by J. C. McDonald himself because it used an unreliable method in attempting to address a much-discussed issue: whether environmental levels of asbestos-containing dust (a variable percentage of which was asbestos fibers depending on the mining or milling process in question) could be used to determine levels of airborne asbestos fibers. In commenting on the reliability of his dose estimates, McDonald stated, “the fiber equivalent of this [dust] exposure level has not been established. Available data suggest that, in Québec, this may be in the region of five fibers per ml. It remains doubtful, however, whether conversion to a fiber equivalent can have much epidemiologic validity” [emphasis added].

While such laundering of data through a series of consultant reports can’t change scientific facts, it can influence judges, juries, regulatory agencies, and the press.

§The judge’s subsequent opinion on Dr. Green’s testimony was that “[h]er credibility was challenged by her belief that money paid to academics to produce learned treatises should not be disclosed, and by the fact that her one previously published treatise on the subject of asbestos ‘grew out of’ expert witness work she had done for a party to asbestos litigation that was not disclosed in the treatise. Her testimony that ‘honest people don’t disclose conflicts of interest’ borders on the absurd.”
Attacks on “Opposing” Scientists

One of the most ethically troubling methods for controlling the scientific debate is the efforts by companies to discredit, intimidate, or invoke scandal around opposing scientists. The orchestrated attacks on Dr. Irving Selikoff, the author of several early studies warning about the health effects of asbestos, are a prime example of companies’ scare tactics and intimidation.

During the 1960s, the asbestos industry continued to deny that asbestos caused cancer among workers. PR and research activities focused on discrediting Selikoff’s findings. The PR professionals pointed to the scientific limitations of the studies acknowledged by the authors, and sought to emphasize in the media that the studies were inconclusive. One PR response to Selikoff noted that his research was “based on limited reports relating to a relatively small group of workers who install and/or remove a variety of insulation materials, including some which contain asbestos.”26

The asbestos companies did not stop with public attacks on Selikoff’s science, however. Shortly after the landmark Mount Sinai conference on asbestos health effects (organized by Selikoff) in October 1964, the Asbestos Textile Institute (ATI) had their attorneys at Cadwalader, Wikersham & Taft send a letter to Selikoff accusing him of “unwise treatment of research data in public discussions.” The letter concluded by warning Selikoff that the ATI urge[s] caution in the discussion of these activities to avoid providing the basis for possibly damaging and misleading news stories. The right to study and to discuss these subjects is clear, of course. But the gravity of the subject matter and the consequences implicitly involved impose upon any who exercise those rights a very high degree of responsibility for their actions.27

Such a message, arriving from a law firm at the behest of an industry group, is best understood as a veiled threat to sue Selikoff or other scientists who publicly discussed the asbestos hazards revealed by their research.

Other asbestos-manufacturing companies put Selikoff under surveillance and tried to discredit him. In November 1965, Owens–Corning Fiberglass (OCF) personnel worried that Selikoff’s activities would hurt sales:

Our present concern is to find some way of preventing Dr. Selikoff from creating problems and affecting sales. A direct approach might be more damaging than helpful and I am only suggesting that we explore, at this time, all avenues open to us.28

The OCF staff reviewed “intelligence” they had gathered on Selikoff that they believed could be used to discredit him and protect their sales.29 They discussed

what they erroneously assumed to be his immigrant status and noted that he was licensed as a doctor in the United States through a “broad reciprocal arrangement with a foreign country.”30

In February 1971, members of the ATI revisited the issue of the “dangerous” Selikoff.30 After disregarding the likelihood of discrediting Selikoff through the medical establishment, ATI resigned itself to dealing with his “half-truths”:

Dr. J. L. Goodman speaking as a member of the ATI Environmental Health Committee stated that Dr. Selikoff is a “dangerous” man, and the asbestos industry is going to have to learn how to combat his tactics!

... When asked if something could be done thru [sic] the American Medical Association [to control Dr. Selikoff] Dr. Goodman expressed doubt. There is a grievance committee of the AMA but was very difficult to get it to act. Thought [sic] that perhaps pressure on the Mount Sinai School of Medicine might be effective.

Incredibly, the attacks on Selikoff did not end with his death. Thirteen years after he died, a British historian and asbestos industry litigation consultant published a 30-page article claiming that Selikoff had fraudulently presented himself as a medical doctor because he had allegedly never obtained a medical degree.31,32 This assertion was untrue, but the history journal that published this falsehood refused to publish a photograph of Selikoff’s medical degree, and it had to be published elsewhere.33

Another example in the occupational health field occurred just a few years ago, at Brown University in Providence, Rhode Island. After Dr. David Kern, an associate professor at Brown, published findings of lung disease among workers at a nearby textile plant, the owner of the plant, who was a member of the board of directors of Kern’s hospital, sought retribution.34 Brown and the hospital jointly terminated his position.

SCIENTIFIC ADVISORY BOARDS (SABs)

Another technique used by PR firms, large law firms, and the companies they represent is to establish “scientific advisory boards” to address a particular issue. All too often SABs are not truly independent advisors, but rather groups of scientists who publish favorable research, speak for industry interests at regulatory hearings and in the press, and testify as expert witnesses in tort litigation lawsuits. For example, the tobacco companies established the Center for Tobacco Research Scientific Advisory Board and the beryllium companies established the Beryllium Industry Scientific Advisory Committee. An SAB can pose as an impartial, authorized scientific body while in fact fur-
U.S. Gypsum/Hill and Knowlton SAB

In the early 1980s, at the behest of asbestos product manufacturer U.S. Gypsum Corporation (USG), Hill and Knowlton (H&K) developed communication strategies for the express purpose of derailing litigation by public schools seeking damages for asbestos removal, discouraging future litigation, and shifting public attitudes about asbestos and individual asbestos companies. H&K recommended that U.S. Gypsum form a coalition with other asbestos companies to face the threat together. The formation of a scientific advisory board was key to the overall strategy.37 H&K executives proposed the formation of a “third-party panel of independent experts to be available for testimony, commentary and technical support in appropriate markets and forums.”

H&K saw the need for such an “independent” panel to build credibility for a company and industry that were rapidly being discredited:

Asbestos manufacturers, like industry proponents of nuclear energy a few years ago, have little, if any, credibility. Evidence adduced by recognized, independent experts, in tandem with the company’s own, can significantly heighten credibility. (This kind of backing could also shore up the wavering school board member who may not be convinced removal is the most efficient or appropriate action.)

In addition, the SAB would voice an opinion on asbestos dangers that would support the industry’s interests and maintain the appearance of a scientific controversy despite evidence of asbestos harms.

The scientific evidence supporting the allegation of health hazards posed by these products is ambiguous and can be interpreted different ways. Nevertheless, how the science is read will have a major impact on verdicts. And, the preponderance of the evidence appears to be on side of the plaintiffs. (The government, presumably a disinterested party, has thrown all its weight behind total removal of asbestos in schools.)

While many other SABs kept industry funding secret, in this case, H&K thought that disclosing industry funding for a supposedly independent panel would in itself be a positive public relations move for the industry:

One notable result of the asbestos controversy is the public perception of corporations shunning their social responsibilities. A panel, funded by, but independent of, the industry could go a long way in ameliorating that perception.

As mentioned, the panel should be funded by all the industries cooperating in the coalition. And the coalition should make a public statement that while it is providing funding, conclusions and recommendations are entirely those of the panel. (Two caveats occur here. First, Participating companies should make their position clear at the outset, but necessarily, distinguish their Position from any arrived at by the panel. Second, to be truly independent, the panel must be balanced—members should be included who in the past may have had questions and concerns about the issue.)

The SAB was meant to influence public opinion on a variety of levels, and its “independent” conclusions would be used as a centerpiece for H&K’s campaign.

One important use of this panel could be to request that it review the EPA protocol used in arriving at conclusions. This, then could be incorporated into both legal and public relations strategies. . . . [A]n independent panel, like the proposed coalition, could help deflect attention away from affected companies. Technical questions, etc., could be referred to panel members, for example. And, answers would have that much more credibility coming from third-party sources. . . . Members of the panel should be available to school boards, on request. They should be available to undertake technical assignment e.g., review of EPA protocol, etc. Finally, they should be available to the media and for other forums (speech platforms, etc.) as appropriate.

Other SABs

In 1976, H&K developed similar techniques for the Chemical Manufacturers Association (CMA) vinyl chloride monomer producers group (VCM-PVC).38 H&K told the VCM-PVC producers group that they needed “third-party experts” to respond to adverse press coverage of vinyl chloride workers whose cancers were caused by vinyl chloride exposure:

As a case in point, this underlines the need for developing third-party experts who will come forward and help clarify issues as they develop. We need additional third-party candidates for this kind of role, and requested the membership provide these for future reference.

In 1989, H&K made similar recommendations to Brush Wellman Inc., the major manufacturer of beryllium in the United States:

Third-party scientific in engineering experts from academia and industry, NASA for example, should be enlisted to review the Brush Wellman public relations materials. The testimonials of these outside experts should be cast as a forward in a white paper and liberally referenced in all support materials, such as brochures and video scripts. The review of
the material by independent scientists will persuasively verify the scientific inclusions in the public relations materials.

These third-party experts may also be used to provide objective information that is supportive of Brush Wellman in a variety of forms, such as at congressional hearings to media representatives.

While SABs can certainly produce legitimate science, they have been used by these and other corporations and industry groups to put the goals of limiting regulation and avoiding liability ahead of genuine scientific research.

FRONT GROUPS, INDUSTRY ORGANIZATIONS, AND THINK TANKS

Front Groups

Like their use of SABs, the corporate strategists also use front groups to provide an appearance of legitimacy to their science. In their strategy memo to U.S. Gypsum, H&K PR consultants explained how the formation of an industry-wide coalition or front group would allow USG to share resources with other companies and counter the public allegations of “activists.” Serving as an information source and media response mechanism for the industry, the front group “could also act to deflect attention away from affected companies,” and “take the heat from the press and activist industry critics.”

In 1984, the asbestos companies, under the leadership of W. R. Grace, formed a front group paradoxically named the “Safe Buildings Alliance” (SBA). The SBA downplayed asbestos hazards to discourage schools and other private and public entities from removing asbestos and suing the companies for removal or repair costs. A court later determined that “Due to the financial and operational control that the [asbestos manufacturers] exercise over the SBA, the SBA is merely the alter ego of the [asbestos manufacturers]. . .” [emphasis added].

In addition, H&K staff intended to use the SBA to utilize the media to influence public opinion, and sway a range of government and regulatory bodies, school boards, labor unions, medical and scientific professionals, and even “internal” audiences (employees).

The front group was to:

- Prevent or mitigate legislation, at all governmental levels, that would authorize governmental subsidy to schools for removal of materials, thereby encouraging adoption of the removal option.
- Significantly enhance understanding of all target audiences of the health risks associated with removal of the material in question; encourage intelligent assessment of issues affecting options for dealing with presence of material.

While the SBA was an industry-run organization, other front groups have been designed to resemble real “grassroots” organizations that appear to be run by and for autonomous citizens’ groups.

For example, the PR firm Burson-Marsteller (BM) has focused on organizing such front groups. This technique, which is an attempt to put the moral power of citizens’ campaigns to work promoting private corporate interests, is often referred to as “Astroturf” (phony grass). To battle the efforts of genuine “grassroots” groups, and to provide an air of legitimacy for a company’s goals, BM has formed many “grassroots” organizations. Unfortunately, these groups are fraudulent, in the sense that the company organizes and pays for their operation. They are not organic, self-determining organizations that are created through citizen or consumer activism.

One notorious example of Astroturf is the National Smokers’ Alliance (NSA), developed by BM on behalf of Philip Morris. The NSA sought to portray regulation on smoking in public places as an infringement of basic U.S. freedoms. Backed by millions of dollars of tobacco-industry money, BM ran newspaper advertising campaigns, set up a toll-free number, paid canvassers and telemarketers, and published newsletters. By 1995 the NSA claimed a membership of 3 million, even though it received less than 1% of its funding from members’ dues and was headed by BM’s vice president. Some people were counted as members whether or not they paid dues, and at least some were given cigarette lighters in exchange for signing up. In an attempt to build their membership rolls, the NSA considered drafting Philip Morris employees into the group as members. While the group claimed it wanted to “empower” smokers and make their voices heard, internal memos reflected a cynical concern about this strategy, stating: “We don’t want to ‘empower’ them to the point that they’ll quit.”

Several other examples of BM-generated front groups have been cited by Ethical Consumer, a British organization, accused of hijacking the agenda at the Rio Earth Summit in 1992.

British Columbia Forest Alliance, a front for Canadian logging interests

• Californians for Realistic Vehicle Standards, a front for the auto industry, opposing pollution regulation
• Coalition for Clean and Renewable Energy, set up to undermine opposition to a controversial dam-building project in Quebec
• Forest Protection Society, lobbying for the Australian timber industry

Industry Organizations and Trade Groups: The Asbestos Information Association Example

Industry organizations have served as a vehicle for corporations within one industry to develop a common scientific agenda to allay public and government concerns about the dangers of their products. Industry organizations are an efficient way for corporations to lobby regulatory agencies. For example, the Asbestos Information Association (AIA), formed by the asbestos industry, led by a consortium of many asbestos companies including Johns-Manville and Union Carbide, successfully weakened OSHA and EPA regulations.

In 1973, Matthew Swetonic, then the director of the AIA, in a speech to the trade association and prospective members, reviewed the problems faced by the industry and AIA's response. He reviewed the "bad news" that "twenty-five thousand workers exposed to the industries' asbestos containing products and five thousand of their own manufacturing workers have died or will eventually die of asbestos-related disease" but contrasted this with "the good news" that, "...Despite all the negative articles on asbestos—health that have appeared in the press over the past half-dozen years, very few people have been paying attention."46

Mr. Swetonic explained the impact of the AIA: "I think it is a gauge of the effectiveness of the total industry involvement in this most crucial matter that of eleven main requirements in the [OSHA] standards, the industry position was accepted totally by OSHA on nine of the eleven, about fifty percent on a tenth, and totally rejected on only one. The struggle is far from over. We must not only continue but indeed expand our activities and the various areas of concern." Among other changes, Swetonic credited the AIA lobbying for changes in the OSHA-required product label, including the removal of the words "cancer" and "danger" that NIOSH had recommended.46

Think Tanks: The Mercatus Center Example

While not necessarily formed as part of any particular corporation's or industry's strategy to limit regulation and liability, a number of right-wing think tanks share these goals with corporate actors. Their generous corporate funding and intellectual capital make them a powerful force in swaying public opinion and influencing lawmakers. A number of well-known think tanks, including Cato, Heritage, and Mercatus, attempt to both limit corporate liability and curb public health regulations.

The think tanks can be very effective at limiting regulation. The Mercatus Center is housed at George Mason University but funded primarily by Koch Industries (a privately held chemical company).47 The Wall Street Journal called Mercatus "the most important think tank you’ve never heard of" and reported that:

Mercatus analysts sometimes contort themselves to build a case against regulation. ... [They] criticized one EPA rule to reduce surface ozone because the EPA didn’t take into account that clearer skies would increase the rate of skin cancer. Later, two other Mercatus scholars blasted a different EPA rule on diesel engines, arguing that it was bad because it would increase surface ozone in some cities. This time they didn’t say anything about the cancer-prevention benefits of more smog.47

In 2001, the first year of the Bush administration, Mercatus criticized 44 regulations. The Bush administration selected 60% of those regulations for elimination or modification. In contrast, the National Association of Manufacturers failed to get the administration to abide any of its recommendations for regulatory “reform.”47

Think tanks can also exert constant pressure on the media and provide a steady stream of “experts” on economic, health, and environmental issues. A recent survey of think-tank citations in the print and electronic media, conducted by Fairness & Accuracy in Reporting (FAIR), found that 50% of all press citations in 2004 were to conservative or center-right think tanks. Only 16% of media citations quoted progressive or center-left think tanks; the remaining 33% citing centrist think tanks such as the Brookings Institution.48

UTILIZING AND INFLUENCING THE MEDIA

Companies and their PR firms use the popular media to influence public opinion regarding the safety of their products. A broad media campaign reproduces manipulated science in a popular format. Such a broad-based strategy is meant to influence the public, legislators, regulators, and potential jurors, who hold immense power to hold corporations accountable in tort actions.

H&K openly discussed the importance of juries and laid out a strategy to influence them, citing the potential adverse effect of jury verdicts on the financial community and stockholders. Any legal decisions against the company, or other asbestos companies, could “trigger a domino effect,” and as litigation continues, “publicity about the suits can bubble up into the national media,” leading to “negative consequences for the company as a purveyor of what is popularly thought to be extremely hazardous material.”49

The PR consultants recognized that popular attitudes about asbestos, supported by a growing body of
medical evidence linking asbestos to lung disease in workers and end users of asbestos products, would have a direct relationship to jury attitudes. To avert losses in court and on Wall Street, the company, and the industry as a whole, would have to discredit the science behind the law suits, and alter public attitudes about their deadly commodity.37

**Corporate PR Masquerading as Independent Opinion or Coverage**

In order to reach potential jurors, who are unlikely to read scientific publications, corporations have developed programs to restrict and coordinate the flow of health information to the media.37 H&K’s asbestos media strategy relied on securing interviews of and placing bylined articles by experts “sympathetic to the company’s point of view.” H&K consultants referred to this as “capturing ‘share of mind’” on the national level.37

One tactic used by companies is to sponsor ghost-written editorials that advance industry positions without acknowledging their source. As noted above, the asbestos industry used the Safe Buildings Alliance in the 1980s as a conduit for planting favorable ideas in news outlets. Other industries have used similar techniques. For example, the tobacco industry secretly paid a sportswriter to write a biased article, which was published in *True* magazine and the *National Enquirer*. The *Wall Street Journal* later exposed this episode, and the writer eventually went to work at a PR firm.49

More recently, the *Austin American-Statesman* exposed a University of Texas–Austin professor of nuclear engineering for submitting a letter he did not write in support of the nuclear lobby. The professor confessed to the newspaper that he had merely signed his name to a letter penned by a PR man from a Washington firm hired by the Nuclear Energy Institute.50 The reporter had searched databases for similar articles, and found several editorials with nearly the exact same language, under different authors, in several other newspapers.50

PR firms have also developed a new technique using video news releases, or VNRs. These visual press releases, which are often satellite-downloadable, are intended to influence public perceptions by appearing to be actual news segments produced by the broadcast news media. In fact, many VNRs have been shown by broadcast networks without disclosure of their industry sources. PR firms produce thousands of VNRs every year, many tout new pharmaceutical products.51

**Investment in the Media**

With $2 billion spent annually on advertising, the tobacco industry has made cigarettes the most heavily advertised product in the United States. While the advertisements themselves sought to shore up the market by reassuring smokers that cigarettes were glamorous and with images implying that cigarettes are safe, the industry’s advertising dollars made the media natural economic allies.49–52 A secret memo prepared by tobacco defense lawyers assessed the efficacy of these programs, “Through a studied investment of its advertising dollars, the industry both coerced the print media to avoid coverage of anti-smoking stories and enlisted the media’s support in opposition to proposed restrictions on print advertising.”49

H&K and the Chemical Manufacturers Association (CMA) employed similar techniques to defend vinyl chloride after scientists found that the chemical—used in the formulation of consumer products such as hairspray and plastics—was carcinogenic. The PR techniques identified in a 1976 memorandum to an industry group signal the industry’s desire to use the media to allay public concerns about vinyl chloride and cancer.59 The CMA and H&K retained the services a number of eminent television and radio journalists to train their personnel in methods to field “volatile” questions from “adversary broadcast and media people.”59

This type of professional advice calls into question the conflicts of interest of journalists who are paid by the industries they might be called upon to cover objectively, especially when fees paid to “high-profile” journalists can reach $100,000.53 For example, Philip Morris USA paid Deborah Norville, a CBS TV anchor, to mock a TV show at a Philip Morris convention.54 Five years later, she co-hosted a newsmagazine segment on tobacco taxes that contained factual errors about the effects of cigarette taxes on smuggling, and prominently featured (without disclosure) an interview with a paid consultant to the Canadian Tobacco Manufacturers Council.54

One highly-paid speaker, ABC’s John Stossel,¶ a co-anchor/ correspondent for “20/20,” produced a segment in 2000 called “The Food You Eat,” which misreported research on organic foods.56 In an apparent conflict of interest, Stossel is also a for-hire speaker through the Agricultural Speakers Network, whose clients include hundreds of Agribusiness companies.57 For the segment, Stossel argued that organic produce may in fact be more dangerous than conventional produce, with ABC’s tests showing increased levels of *Escherichia coli* bacteria in organic sprouts and lettuce. He also maintained that the tests found no pesticide residue in either the conventional or the organic produce, thereby removing a key reason for buying organic food.56 But according to the scientists that ABC hired, they had never tested any of the produce for pesticides, only for bacteria. During the broadcast, Stossel commented that “it’s logical to worry about pesticide

---

¶ The media watch group Fairness & Accuracy in Reporting (FAIR) estimated in 1998 that Stossel’s combined income exceeded $1 million annually.55
residues, but in our tests, we found none on either organic or regular produce.” The testimony of both researchers indicates that Stossel was referring to tests that did not exist.\textsuperscript{35}

Whether or not high fees for speaking engagements influence reporting, journalists have a professional obligation to “present the news with integrity and decency, avoiding real or perceived conflicts of interest.”\textsuperscript{58} According to the code of ethics of the Radio-Television News Directors Association, electronic journalists “should operate as trustees of the public, seek the truth, report it fairly and with integrity and independence, and stand accountable for their actions.”\textsuperscript{58} Journalists should not “accept gifts, favors, or compensation from those who might seek to influence coverage.”\textsuperscript{58} These speaker fees certainly violate these ethical standards.

**CONCLUSION**

The strategy developed by corporations working in concert with law and PR firms has been successful in limiting both liability and regulation. Today in the United States, the federal agencies charged with protecting occupational and environmental health are underpowered and underfunded, and the current Bush administration is continuing the deregulatory policies of Bush predecessors George H. W. Bush and Ronald Reagan. A similar deregulatory trend is under way worldwide with the globalization of the “free trade” orthodoxy. The resulting corporate profit comes at a great cost: the health and lives of everyday citizens.

Without vigilant oversight by government regulators, a true watchdog press, citizen and union participation, and universal ethical standards for scientific research, industry will continue to use this strategy to maximize profits while minimizing health protections.

We suggest that concerned health professionals and others adopt some of the tactics described here (with the exclusion of poor-quality science designed to result in a predetermined outcome), but use them to protect rather than undermine public health. Scientists must form more effective linkages with unions and authentic grassroots community organizations. We must write genuine editorials and articles for the lay press. And we must testify at Congressional and regulatory hearings and in toxic tort litigation. A sharp blade can serve either as a scalpel or as a murder weapon.

**References**


7. Rodgman A. The smoking and health problem—a critical and objective appraisal. 504822823-2846. 9-12-1962.


16. Capiello D. Oil industry funding study to contradict cancer claims, Houston Chronicle. April 29, 2005 AD.


43. PR Watch. 4th Quarter. 1997. Center for Media and Democracy.
44. PR Watch. 3rd quarter. 2001. Center for Media and Democracy.
45. Public Relations Quarterly. 1998;43(2)[Summer].
55. Greed is bad reporting. Fairness and Accuracy in Reporting. April 1, 1998.
56. Stossel fabricated data on organics, researchers say. Fairness and Accuracy in Reporting, August 1, 2000.