

THE PRECAUTIONARY PRINCIPLE: THROWING SCIENCE OUT WITH THE BATH WATER

WHEN STUDIES in the early 90's suggested that the chlorination of public water supplies might expose consumers to a negligible risk of cancer, environmental activists called for a complete ban on chlorine. Peru responded by de-chlorinating its drinking water. As a result, 300,000 people contracted cholera and over 3,500 died.

Could it happen in the United States? Who can forget the Alar scare? In 1989, the Natural Resources Defense Council and the television program *60 Minutes* warned about the cancer-causing dangers of eating Alar, a growth-regulating chemical used on apples. As a result, apples were banned from school lunch menus and millions of consumers stopped buying them. Even though further study later confirmed that Alar was safe, it took years for the apple industry to undo the damage done by the media hysteria.

In 1998, dire warnings were issued by Greenpeace and the National Environmental Trust about the hazards of diisononyl phthalate (DINP), a chemical used to soften vinyl teething rings, rattles, and other plastic toys. Laying aside 40 years of scientific study establishing the safety of phthalates, Mattel took the lead in voluntarily discontinuing their use. Other manufacturers and retailers followed suit. In a press release announcing the removal of phthalate-containing baby products from its stores, Toys "R" Us said they "had received assurances...that scientific evidence supported the safety of phtha-

lates" but that it was acting in response to consumer concern, "while additional scientific data is gathered." Late that year, the Consumer Product Safety Commission released a study concluding that, "generally, the amount ingested does not even come close to a harmful level." But "as a precaution" the CPSC encouraged toy manufacturers to avoid using DINP in products intended for young children.

Gradually, the idea is beginning to take hold in the U.S. that *any* risk is too much to tolerate. Environmental activists and special interest groups are advocating a departure from the disciplined, science-based process of risk assessment which has guided U.S. health and environmental policy making for decades, in favor of a more radical interpretation of "precaution."

This school of thought, which advocates the so-called "Precautionary Principle," favors a "better safe than sorry" approach to regulatory policy that places risk avoidance above all other considerations. On the surface it sounds noble, and it plays well in the media. But as the above examples suggest, the abuse of the Principle can lead to illogical and even detrimental health and environmental policies.

There is growing concern that the Precautionary Principle, as espoused by activist groups in the U.S. and Europe, poses a serious threat to sound science, global commerce, consumer choice, and technological progress.

In this special report, presented in cooperation with the crisis management firm Nichols•Dezenhall, we examine the Precautionary Principle, its implications for the United States, including the results of several surveys we have conducted on this topic, and how industry should respond to this challenge.



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DEFINITION AND HISTORY

Until recently, debate about the Precautionary Principle has occurred largely outside the United States. Over the past 15 years, various iterations of a precautionary approach have found their way into international environmental treaties. For example, Principle 15 of the 1992 Rio Declaration on Environment and Development states:

In order to protect the environment, a precautionary approach shall be widely applied by the states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Significantly, the Rio Declaration has received broad global support, including endorsement from the United States and its major manufacturing industries.

Key to that support are the *qualifications* embodied in the language of the declaration. Principle 15 urges precaution, yet makes allowance for the *capabilities* of developing countries. It acknowledges that threats should trigger action, but only if the threats are *serious or irreversible*. It recognizes that *full scientific certainty* is elusive, but in no way endorses regulation based on suspicion, political motive, or junk science. Finally, it insists that preventive measures be *cost-effective*, considering both risks and benefits.

But environmental and health activists are not bound by the carefully negotiated wording of international treaties. Their stripped-down version of the Principle says that the mere suggestion of a threat—no matter how remote or unproven—is cause for regulatory action. This allows special interest groups to play upon public fears and people's distrust of big business and government to advance their own anti-corporate, anti-technology agendas. Consumers, with little appreciation for the realities involved, fall prey to sound bites and scare tactics.

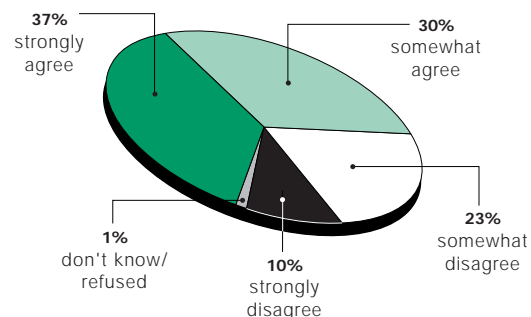
PUBLIC SUSCEPTIBILITY TO ALARMISM

Wirthlin Worldwide's environmental surveys reveal why the American public is so susceptible to the rhetoric of the Precautionary Principle and its advocates. In fact, our findings suggest that to some extent the Principle is already part of the U.S. public consciousness.

- Environmentalism is still very much in fashion. Two-thirds of Americans say they are either “sympathetic to environmental concerns” (56%) or call themselves “active environmentalists” (10%).
- Nearly two-thirds (64%) believe that “protecting the environment is so important that requirements and standards cannot be too high, and continuing environmental improvements must be made regardless of cost.” This simplistic yet “sexy” line of reasoning falls right in line with the doctrine of the Precautionary Principle.
- Perceptions of potential harm from man-made substances is high. Seventy-eight percent agree, “I am exposed every day to man-made chemicals... which are harmful to my health.”
- Stated tolerance for risk is low. Three out of four (77%) agree, “When it comes to environmental pollution, *any* amount of potential health risk should not be tolerated.”
- A majority generally believe what they hear about environmental threats. In a 1997 survey, 56% said threats cited by environmental groups are not exaggerated, but are as serious as they say they are. People were even more likely (60%) to believe threats cited by the media.
- Two-thirds (67%) say if there is “a suspicion” that a product harms the environment or human health they would avoid the product *even if there is no scientific evidence that it causes harm*.

BETTER SAFE THAN SORRY?

IF THERE IS A SUSPICION A CERTAIN PRODUCT CAUSES HARM TO THE ENVIRONMENT OR ENDANGERS HUMAN HEALTH, I WOULD AVOID THE PRODUCT, EVEN IF THERE IS NO SCIENTIFIC EVIDENCE THAT IT CAUSES ANY HARM



- Most (69%) feel consumer groups are justified in urging consumers to discontinue use of a product “as a precautionary measure,” even in the face of FDA & industry assurances that no threat exists.
- Because of damaged public trust in corporate America, the public clings to its “right to know”

and to make its own decisions, even if the source is junk science. Seven out of ten (70%) feel publishing studies alleging health hazards of a certain chemical—“even though the average person will never be exposed to enough of that chemical in their entire lifetime to do any harm”—is justified, because “the public should be made aware of every possible hazard, *no matter how remote.*”

While it may appear that Americans are already set in their attitudes on this issue, two things should be kept in mind: First, what people say and what they do are not always the same. Individuals do make choices in their daily lives that balance costs and benefits, more than the above answers might suggest. Some of our other survey responses demonstrate this:

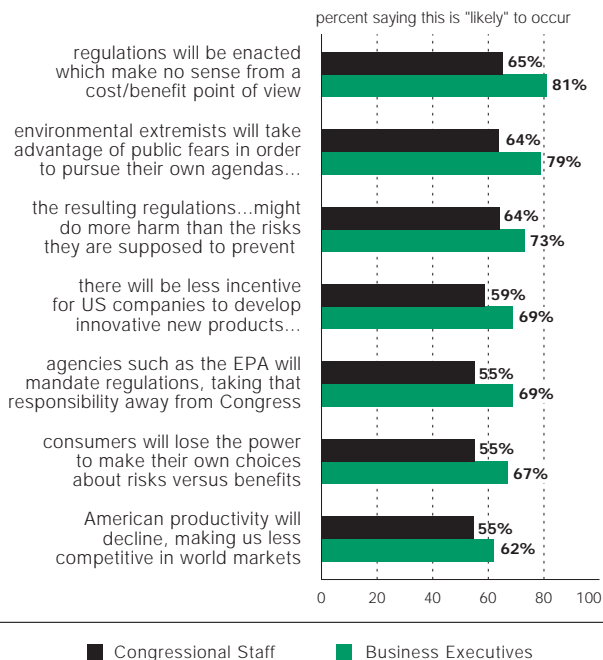
- 44% say, “I am willing to accept some health risk from exposure to chemicals in exchange for modern products and a convenient lifestyle.”
- 72% of the public agree (1995) that “some pollution in the environment is inevitable in order for many industries to operate and provide jobs.”
- 83% agree (40% strongly) that “when it comes to environmental pollution, we have to accept the fact that we will always have to live with some level of potential health risk.”

Secondly, while public opinion certainly impacts environmental policy, the attitudes of key opinion leader groups will have a more immediate role in determining how fast and how far the Precautionary Principle is allowed to spread in the U.S. These include health and environmental activists, media, federal regulators, Administration officials, members of Congress, and leaders of business and industry. Our research among two of these groups, business executives and Congress, suggests they hold a more skeptical view of the Principle than the public.

THE DANGERS OF THE PRECAUTIONARY PRINCIPLE

In separate surveys of American corporate executives and U.S. Congressional staff, we provided a definition of the Precautionary Principle and asked about some of the potential negative impacts of the trend toward its extreme application. As the following chart shows, both groups feel an overly-cautious approach will result in higher costs than Americans,

POTENTIAL NEGATIVE IMPACTS OF THE PRECAUTIONARY PRINCIPLE



as individuals and as a society, are willing to pay. Let's look at some of these possible outcomes.

IGNORING THE COST-BENEFIT PARADIGM

Both groups surveyed agree the most serious threat is that “regulations will be enacted which make no sense from a cost/benefit point of view.” There are numerous examples of instances where an over-zealous adherence to the Precautionary Principle has or would impose unreasonable costs, or lead to the loss of important benefits.

For instance, if some groups had their way, pesticides would be totally banned. As a result, many kinds of produce would become either unavailable or much more expensive, depriving many consumers of the well-known nutritional benefits of fruits and vegetables in their diet. Likewise, biotechnology holds the promise of more nutritious foods and crops that don't need chemical sprays, but activists are battling against gene-splicing because of paranoia about unknown potential impacts.

Consider the man who chooses to spend his life in an oxygen tent for fear that he might get cancer or emphysema from airborne pollutants, thus foregoing physical exercise, social interaction, and normal family relationships. A ridiculous example, perhaps, but it shows the absurdity of giving up known benefits

for fear of a hypothetical risk, as well as the unreasonableness of a zero-risk standard.

The truth is that every form of human activity has some amount of risk attached to it. We make choices every day which balance those risks against other factors. Those who focus solely on the risks frequently overlook the lost benefits.

LOSS OF U.S. COMPETITIVENESS

Because the Precautionary Principle is subject to a wide range of definitions and interpretations, it can be easily manipulated as a political tool to mask protectionism and hamper free trade.

For over a decade, the European Union has banned imports of U.S. and Canadian beef, contending that hormones used to fatten cattle may cause endocrine damage. The FDA says available science shows the hormone residues in beef are safe, and the WTO ruled in 1997 that the ban is unjustified. But the ban still stands, costing U.S. producers as much as \$300 million a year in lost exports.

On January 29th, diplomats from 130 countries signed the Cartagena Protocol on Biosafety, which establishes rules governing trade in genetically modified organisms (GMOs). After fighting against import restrictions for more than a year, the U.S. delegation was forced to make a number of concessions. The final treaty imposes labeling requirements on genetically altered commodities and allows countries to unilaterally ban imports of such commodities if it feels (note the arbitrary standard) there is not enough scientific evidence showing the product is safe. These provisions were pushed through largely by the European Union, which repeatedly cited the Precautionary Principle as the authoritative precedent.

Such actions are a “foot in the door” which, if unchallenged, will make it much easier in the future for nations to find an excuse to bar imports from other nations when it is to their advantage—in the absence of any credible scientific evidence of harm—even when doing so runs counter to existing trade agreements. Indeed, just days after the Biosafety accord, the European Commission released a policy paper embracing the Precautionary Principle and legitimizing its broad application by EU states.

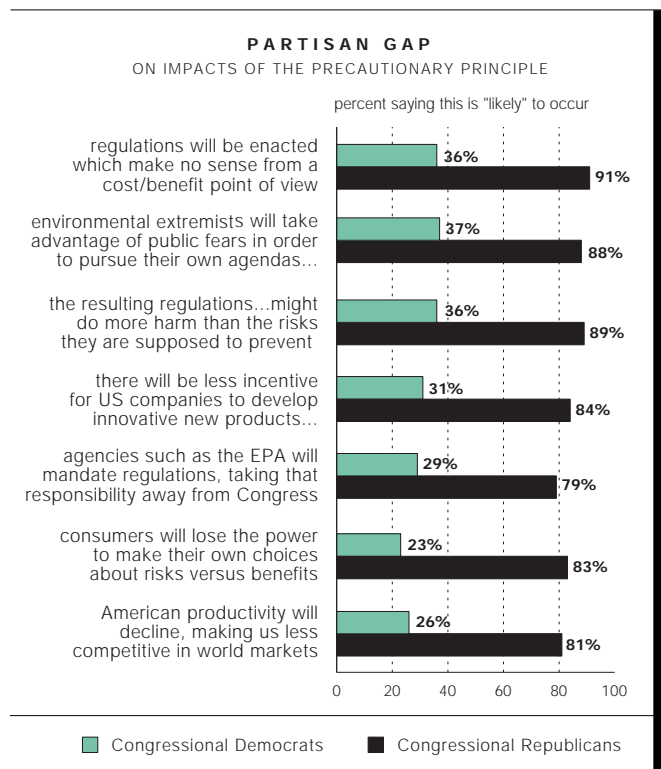
U.S. industries—particularly chemicals, plastics, pharmaceuticals and biotechnology—may soon find their access to world markets severely limited. Industries who want to remain globally competitive cannot afford to ignore this trend.

POLITICIZATION OF THE REGULATORY PROCESS

Another common fear is that “environmental extremists will take advantage of public fears to pursue their own agendas.” The vagueness of the Principle leaves it wide open to misapplication and abuse. If a certain group wants to delay the introduction of a new product or technology, all they need to do is raise the fear of adverse health or environmental impacts by conjuring up some kind of “risk,” if only an imaginary one. They do not need to prove that a causal link exists—simply start the snowball rolling and let public opinion, fanned by the media, do the rest.

The potential for abuse is not limited only to environmental extremists. Any economic or political force which would have something to gain by preserving the status quo might effectively do so by invoking the Principle.

Until recently, the U.S. has managed to speak with a unified voice against such abuses in the arena of international trade. But the Clinton Administration’s capitulation on the GMO accord hints at a nation deeply divided. Our Congressional survey shows a huge gap between members of the two major political parties concerning the seriousness of the threat posed by the Precautionary Principle.



This partisan split extends right down to the public. In researching Americans' environmental attitudes over the past decade, we have found that Democrats are consistently more likely than Republicans to feel that we must protect the environment at all costs, and to support additional government regulation in the area of pollution control and the environment.

All of this suggests that as the Principle begins to impinge on domestic policy debates, it will touch off some divisive political battles.

THREAT TO MAINSTREAM SCIENCE

The Precautionary Principle undermines the time-tested process of scientific research and analysis. Advocates of the Principle always hide behind a "scientific" study to justify their warning cries, yet their mantra is patently unscientific: "Unless you can prove that your product poses zero risk to the environment, wildlife or people, now or in the future, it shouldn't be on the market." FDA regulations point out that "it is impossible in the present state of scientific knowledge to establish with complete certainty the absolute harmlessness of any substance."

But that is not to say we should not do all we can. U.S. health and environmental laws, which are among the strictest in the world, generally place the burden of proof on manufacturers of new products or proponents of new activities to demonstrate to federal regulators that their new product or activity is "safe" before they can be permitted to introduce the products. However, our research suggests that the general public has little knowledge or appreciation for the science-based process that is used to determine whether a material is safe for people and the environment.

In the case of food additives, the FDA defines additives as safe only when "there is reasonable certainty in the minds of competent scientists that the substance is not harmful under the intended conditions of use." The analysis of risk is carried out using highly conservative assumptions, worst case scenarios, and wide margins of safety. Manufacturers are required by law to conduct comprehensive scientific studies using carefully controlled and replicable methods. The resulting mountain of data is then submitted to federal regulators, who go over the findings with a fine tooth comb, comparing them with the government's own independent studies, to determine the safety of the substance based on scientific facts and

the regulatory safety standards in federal law.

Before a new insecticide can be approved for use in the United States, it must be registered with the EPA. The manufacturer is required to submit scientific studies demonstrating that the pesticides will not produce "undue hazards to human health or the environment." The body of scientific evidence required for registration is significant, comprehensive, and costly for manufacturers.

Yet under the Principle, these years of scientific research can be overturned by a single, unreplicated study which casts vague doubts about the product's safety. Unless challenged, this trend threatens the respectability and influence of legitimate science.

TRADING ONE RISK FOR ANOTHER

There is a fear on the part of business leaders and legislators that regulations imposed under the Precautionary Principle "might do more harm than the risks they are supposed to prevent."

The Principle discounts the need for a balanced, analytical approach to risk management. Consequently, there are no checks and balances to ensure that the threat is probable or significant, or that the regulatory response is proportional to the risk it is intended to reduce. The Principle's advocates ignore the very real possibility that actions aimed at protecting the public health may actually end up harming the public health.

The Peruvian water de-chlorination catastrophe is a classic example. But there are many others. Consider electric power generation. The most reliable scientific data available indicate that nuclear power generation is significantly safer than burning wood, coal and other fossil fuels. Yet nuclear power remains a popular target of activists. If anti-nuclear advocates were to succeed in convincing governments to place stricter limitations on nuclear power plants, it might force power companies to switch to fossil fuel combustion, which presents a much greater risk to human health in the form of illness, air pollution, and global warming.

The calculus of environmentalism often fails to consider such hidden tradeoffs. Another example: Banning pesticides, while intended to safeguard the environment, could instead result in large-scale environmental impacts. Modern high-yield agriculture depends on the use of pesticides to maximize production on existing arable land. Without pesticides, the world's farmers would be forced to plow under

millions of additional square miles of wildlife habitat in order to grow the same amount of food.

STIFLING INNOVATION

For any society that values progress and innovation, and for any industry that is dependent on science and technology to engage in commerce, the Precautionary Principle is nothing short of suicide.

The American economy has been built on the principles of free market incentive. Private companies spend billions of dollars researching and developing new and innovative products, anticipating profitable market payoffs down the road.

If the Precautionary Principle is permitted to become the predominant school of thought in the U.S., it could threaten this system. Because one can never prove with absolute certainty that a product has no risk, companies would live under the constant fear that no matter how much they do to develop a safe product, special interest groups could come along at any time and wipe out their investment with a single, unsupported study. Companies would lose the incentive to invest in new technologies and innovation would grind to a halt.

It may be hard for those living in developed countries to appreciate the consequences of such a course. In the U.S., if one baby rattle is banned, there is always another choice. But in the developing world, where you are talking about limiting technologies for agriculture, water purification, power generation and medical care, an anti-innovation mindset becomes literally a matter of life or death. Yet all around the globe, national governments and international governing bodies are being pressured to impose the Precautionary Principle in developing countries where the promises of science and technology remain unrealized.

If the unscientific, zero-risk standards of the Precautionary Principle had been applied to the internal combustion engine, anesthesia, Penicillin, the polio vaccine, space travel, or the millions of other products, materials and technologies that have improved the human condition, we would still be living in the dark ages.

NARROWING CONSUMER CHOICES

As special interest groups succeed in forcing product bans and “voluntary” withdrawals, they are in effect limiting people’s choices in the marketplace. By fos-

tering the paternalistic notion that “we know what’s best for you,” the Precautionary Principle allows one small group to impose their values on the whole society, taking away consumers’ ability to make their own informed decisions.

Americans place a high value on freedom of choice. While in some cases regulatory action is desirable to safeguard an unwitting public against hidden threats (asbestos, lead-based paint), and in other cases U.S. laws dictate safeguards and warning labels (OTC medications, household cleaners, fluoridated toothpaste), Americans generally are left to make their own choices. Despite the potential hazards, they can choose to bungee jump, skydive, smoke cigarettes, drink whiskey, eat bacon, and consume vegetables grown with pesticides.

HOW SHOULD BUSINESS AND INDUSTRY RESPOND?

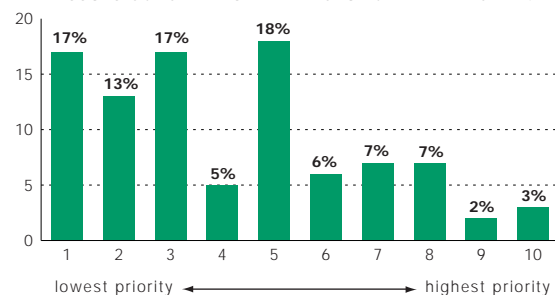
It falls to business and industry—both users and producers of products threatened by non-science-based regulation—to mount some kind of a defense and, hopefully, go on the offensive against the Principle.

The first challenge in that process may be overcoming ignorance and apathy within their own ranks. Our surveys found that unaided awareness of the Precautionary Principle by name is extremely low among both Congress (9%) and executives (3%).

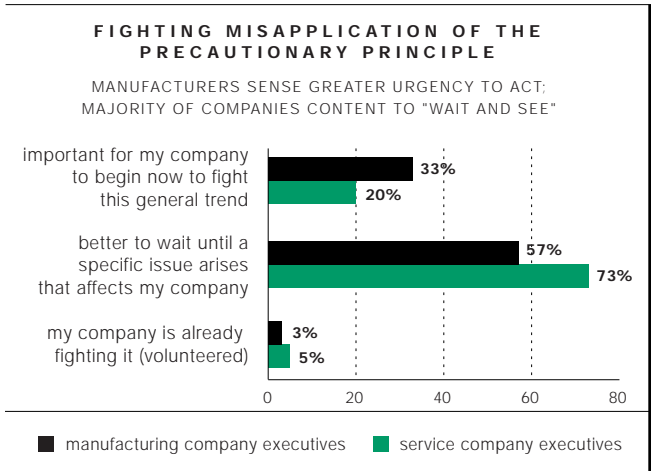
After being given an explanation of the Principle, individual executives show concern about its possible outcomes. But they do not feel their companies have yet recognized the seriousness of this issue. Only 5% of executives surveyed feel their company ranks addressing issues dealing with the Precautionary Principle as a priority 9 or 10. Only one in four respondents (26%) rank it a priority 6 or higher.

MOST U.S. COMPANIES PAYING LITTLE ATTENTION TO PRECAUTIONARY PRINCIPLE

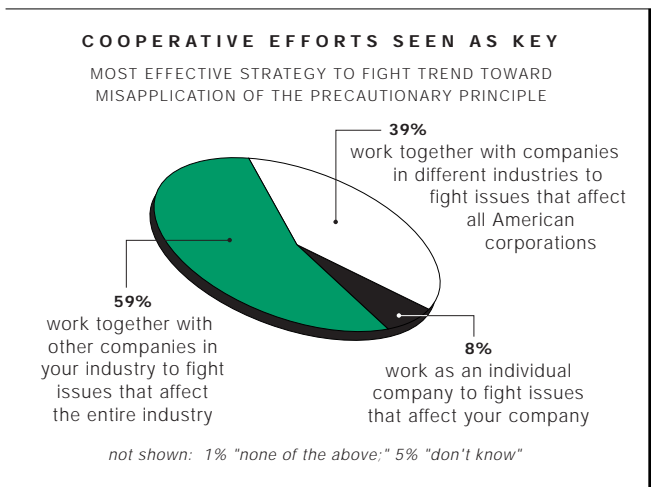
“HOW DO YOU THINK YOUR COMPANY PRIORITIZES ADDRESSING ISSUES CONCERNING THE PRECAUTIONARY PRINCIPLE?”



Further, only one quarter (26%) feel it is important for their company to begin now to fight the trend of growing application of the Principle. Two-thirds (65%) think it would be better to wait until a specific issue arises that directly affects their company.



Nevertheless, the overwhelming majority of business leaders polled expressed a willingness to unite with other companies to pool resources to combat this trend. Four out of ten think companies in different industries should work together to fight issues that affect all American corporations. An even greater number (59%) say the most effective strategy to fight this trend will be to band together with other companies within their own industry.



But private industries must realize they face an uphill battle for credibility as they attempt to level the playing field. In a recent national survey, we asked Americans to rate the trustworthiness of various sources when it comes to information about alleged environmental and health risks. “A spokesman for the company or industry in question”

ranked dead last (3.2 on a scale of 1 to 7). Even a company-employed doctor or scientist scored low (3.9) on credibility, compared to the media, watchdog groups, and “independent” doctors or scientists. We have found, however, that when supplied with values-based media training, company and industry representatives *can* be effective spokespersons.

STRATEGIC IMPERATIVES FOR AN EFFECTIVE RESPONSE

1. SPEAK OUT AGAINST ABUSE OF THE PRINCIPLE
 - a. It is too late to re-define the “Precautionary Principle” in ways favorable to industry. Extremists have already branded the term. Instead, emphasize industry’s adherence to a tried and proven precautionary *approach*, and draw the distinction between reasonable and extreme interpretations.
 - b. Enlist surrogates who can effectively attack the Precautionary Principle and its misapplications. Language and positioning are all-important. Beware of saying that industry “opposes the Precautionary Principle.” Activists will seize on that to imply that big business does not care about people’s health and safety.
 - c. Drive up the negatives associated with the Precautionary Principle. The first half of this report describes some of those negatives. Use these kinds of arguments to expose the simplistic thinking behind alarmist rhetoric.
 - d. Find examples within your own industry to demonstrate the obvious dangers of relying on an over-simplified version of the Principle.
2. BUILD SUPPORT FOR RISK ASSESSMENT
 - a. Conduct research and message testing to determine how to “re-brand” risk assessment in order to make it salient to consumers and compelling enough to blunt the rhetoric of Precautionary Principle advocates.
 - b. Proactively orchestrate support for the science-based process of risk assessment by influentials in the public and private sectors.

The following are some possible message themes, which require further testing:

- A science-based precautionary *approach*, known as *risk assessment*, has been a part of U.S. envi-

ronmental and health laws for over 100 years. We don't need the Precautionary Principle.

- Risk assessment has served the U.S. well. American life expectancy nearly doubled during the 20th Century. Americans today are living significantly longer and healthier lives than ever before.
- Industry is committed to a science-based precautionary approach which safeguards human health and the environment. This approach has been very successful in protecting consumers from unsafe products while respecting the consumer's freedom of choice in the marketplace.
- Industry invests heavily in safety testing and product improvement. Companies who make such an investment have a huge economic incentive *not* to put on the market a product that will later be shown to be unsafe.

3. EDUCATE WITHIN YOUR COMPANY AND INDUSTRY

- a. Inform key thought leaders, especially those who have public or media contact, about the Precautionary Principle, its extremist interpretations and their potential for abuse.
- b. Find out how the Principle is being or might be misapplied in ways that affect your industry.
- c. Take responsibility for communicating with your business customers on this important issue.

4. DEVELOP A CROSS-INDUSTRY STRATEGY

- a. Work with other companies in your own industry to agree on shared approaches to risk assessment. Make sure these follow the principles of science-based risk assessment.
- b. Agree on strategies to respond with a unified industry voice when a crisis arises.

5. CONTINUE TO EXPLORE THIS ISSUE

- a. Conduct core-values research among consumers and other key stakeholders, to understand their perceptions (both rational and emotional) of your industry on health and environmental issues, and to anticipate their likely response to public debate over the Precautionary Principle.
- b. Develop a communications strategy and employ message testing to identify how to most persuasively communicate your position on these issues as appropriate within your company, to regulatory bodies, to industry peers, to customers, and to the general public.

ABOUT NICHOLS-DEZENHALL

Nichols•Dezenhall Communications Management Group (N•D) is the industry leader in crisis management and high-stakes communications. N•D provides counseling and services to corporations, industry coalitions and trade associations facing marketplace crises, predatory assaults, and other catastrophic events where the potential for damage is extremely high.

Since 1987, N•D has often teamed with Wirthlin Worldwide to help clients achieve their business objectives in the face of environmental controversies, food safety allegations, media attacks, activist-orchestrated protests and adverse litigation.

ABOUT WIRTHLIN WORLDWIDE

Wirthlin Worldwide is one of the leading strategic research and consulting companies in the world. From its founding, the firm has been known for its expertise in translating innovative opinion research into winning strategies. Many of the world's top corporations look to Wirthlin Worldwide to help them formulate *Strategic Imperatives*—the critical actions which will lead them to success.

With a focus on marketing and communications strategy development, our range of services includes corporate positioning, brand equity, customer satisfaction, new product development, crisis management, and employee communications and alignment.



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