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Space Suits, Lab Coats, Business Suits, And Tie-Dyes

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SPACE SUITS, LAB COATS, BUSINESS SUITS, AND TIE-DYES

*Congressman Joe Knollenberg**

INTRODUCTION

As a United States Congressman and a member of the Appropriations Subcommittee on Energy and Water Development, I have had the good fortune to not only observe the scope, nature, and process of environmental policymaking in the United States, but also to compare it with other countries around the world. From these experiences, I have found that the most compelling environmental issue confronting us as we prepare to enter the twenty-first century is our overly complex and burdensome system of federal, state, and local environmental regulation. Our system, while developed with good intentions, has hamstrung our ability to clean up our current ecological plight in a timely and cost-effective manner. Worse, it poses a serious threat to future environmental protection initiatives at a time when our financial resources to undertake them will be strained as never before.

I. EFFECTIVE POLITICS AND SOUND SCIENCE: OFTEN AT ODDS

For over two hundred years, our democratic political system has granted the public wide latitude to participate in the policymaking process. And while not perfect, there is no better way than public involvement to insure that the process is both fair and open. However, as the issues we face grow more complex, the public's ability to understand the subtle nuances of the debate is invariably compromised and a rift develops between sound policy and effective politics. As a result, sound bites often eclipse sound science as the most effective tools in the policymaking process. For instance,

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until recently¹ the so-called "Delaney Clause"² required the Food and Drug Administration to pursue a zero-tolerance policy for carcinogens in prepared foods and had been a fixture of U.S. policy for almost four decades. On the surface, the Delaney Clause made sense. After all, how could anyone condone the use of cancer-causing agents in the nation's food supply? But on closer examination, its utility rang hollow. When the Delaney Clause was enacted in the 1950s, the testing methods of the day could usually detect carcinogens in the parts-per-thousand.³ In recent years, however, technologies developed that could detect them in the parts-per-trillion.⁴ At that level, the term "carcinogenic" encompasses practically every compound that poses the slightest risk of cancer.⁵ In fact, foods like celery have naturally-occurring carcinogens in much greater concentrations,⁶ yet the Delaney Clause made no distinction between these various carcinogens.⁷

Thus, from a purely scientific perspective, the Delaney Clause was a severely flawed method of protecting food safety. A much better policy is needed which will analyze peer-reviewed data on the health risks associated with these various carcinogens, and set standards on a case-by-case basis. However, as a policymaker, you must be willing to pay the political price.

1. The 104th Congress enacted significant reforms to the Delaney Clause by passing the Food Quality Protection Act of 1996, Pub. L. No. 104-170, 110 Stat. 1489 (codified as amended in scattered sections of 21 U.S.C.).

2. See 21 U.S.C. § 348 (1994).

3. See Robert Kaster, *It's a Tough Competition for the Worst Regulation*, WASHINGTON TIMES, July 23, 1996.

4. *Id.* ("[w]hen [the] Delaney [Clause] was enacted, residues could only be measured in parts per thousand. Now they can be measured in parts per trillion and sometimes even in parts per quintillion.").

5. See *Group Urges U.S. to Promote Science*, WASHINGTON POST, Feb. 9, 1997. The article states that "[the Delaney Clause] prohibited use, in processed foods, of any substances that can cause the slightest risk of cancer at any concentration." *Id.*

6. See William London & Ruth Kava, *Be Thankful You're Not a Rat*, PORTLAND OREGONIAN, Nov. 28, 1996 ("[e]ach year the American Council on Science and Health publishes its Holiday Dinner menu, which shows that many, if not all, mouthfuls of a traditional Thanksgiving feast contain 100-percent nonsynthetic, all-natural, all organic carcinogenic chemicals . . .").

7. See 21 U.S.C. § 348 (1994).

For decades, proponents of Delaney Clause reform had to justify why “[they] voted for carcinogens in [our] food supply”⁸ or why they introduced legislation that will allow “cancer-causing food additives in our food supply.”⁹ Thus, a seemingly simple fix to an outdated policy was thwarted and its supporters maligned.

Often, our environmental policy suffers the same fate. As sound bites continue to triumph over sound science, the public’s ability to perceive risk in a detached and objective manner becomes predisposed. Take, for instance, the American public’s opinion toward nuclear power. In 1979, the partial meltdown of reactor number three at Three Mile Island gripped the entire nation, and soured Americans to the environmental and safety benefits of nuclear power.¹⁰ Indeed, the public’s perception of it is best captured by “The Simpsons” television show, whose depiction of a nuclear plant is replete with flashing red “Warning” signs and glowing green fluid oozing from the various pipes.¹¹

8. Margaret E. Kriz, *Poison Gamesmanship*, NAT’L J., Apr. 18, 1992, at 931.

9. CENTER FOR SCIENCE IN THE PUBLIC INTEREST, HR 3200’S ATTACK ON FOOD SAFETY: GIVING FDA’S ENFORCEMENT OF FOOD SAFETY LAWS TO OUTSIDE GROUPS (June 1996).

10. See James White, *Baby-Bombers’ Lives and Times: Recounting the Good, the Bad*, THE PLAIN DEALER, Jan. 1, 1996, at 5D.

11. In fact, nuclear power has proven to be a safe way to produce electricity, especially when appropriate safety and licensing requirements are followed. Unlike coal, natural gas, or oil, nuclear power plants do not emit noxious gases including carbon dioxide, sulfur dioxide, and nitrogen oxide. See NUCLEAR ENERGY INSTITUTE, ISSUE BRIEF: THE BENEFITS OF NUCLEAR ENERGY: ENERGY SECURITY, ENVTL. PROTECTION 1 (Feb. 1995). Even when the serious accident at Three Mile occurred, no injuries or deaths resulted. See NUCLEAR ENERGY INSTITUTE, ISSUE BRIEF: HOW DO WE KEEP NUCLEAR POWER PLANTS SAFE? (Apr. 1995) [hereinafter HOW DO WE KEEP NUCLEAR POWER PLANTS SAFE?]. Due to multiple barrier containment, “the accident at Three Mile Island . . . the worst accident in the history of U.S. commercial nuclear energy, caused an average exposure of just 1.5 millirem to people within 50 miles of the plant— about what they would get from a cross-country airplane flight.” NUCLEAR ENERGY INSTITUTE, RADIATION: WE KNOW YOU HAVE QUESTIONS. HERE ARE SOME ANSWERS (Apr. 1995).

Conversely, when you do not have comprehensive safeguards, the result is Chernobyl. The Chernobyl accident killed about thirty people and resulted in many more injuries due to radiation exposure and burns. See HOW DO WE KEEP NUCLEAR POWER PLANTS SAFE?, *supra*, at 1.

II. FUNDAMENTAL FLAWS IN OUR REGULATORY SCHEME:
EFFECTIVE POLITICS WITHOUT SOUND POLICY

Environmental policy suffers when sound science is subordinated by political opportunism. At times, the real world impact of a policy crafted in this environment can be exactly the opposite of its stated intentions. The Endangered Species Act¹² is a perfect example. Current law, while intended to prevent extinction, in some cases actually encourages landowners to destroy any natural habitat and/or kill any endangered species that exist on their land out of fear that the federal government will place restrictions on its use if either the habitat or animal is discovered.¹³

In other cases, an overly-politicized process yields legislation so ineffective that while billions of dollars are spent to remedy an environmental problem, very little is ever accomplished. For instance, the EPA's Comprehensive Environmental, Response, Compensation, and Liability Act¹⁴ ("CERCLA" or "Superfund") was devised as a regulatory framework whereby the federal government could recover from potentially responsible parties ("PRPs") the costs of cleaning up the nation's toxic waste sites. However, in practice, only a small amount of PRP expenditures actually is applied toward cleanup costs. For example, one report surveyed 666 corporations and found that thirty-three percent of their site expenditures go towards legal expenses.¹⁵ This figure increases to an

12. See 16 U.S.C. §§ 1531-1544 (1994).

13. One commentator discusses the failure of the Endangered Species Act, noting that

[t]he unintended result is that listed species become the landowner's enemy, and habitat attractive to those species is often cleared or modified to keep the species away. Animals reportedly are even shot and quietly buried. Given the perverse incentives created by the act, it is not surprising that the Fish and Wildlife Service has only removed twenty-four species from the list of endangered or threatened species, and seven of twenty-four were delisted because they became extinct.

Richard L. Stroup, *The Endangered Species Act in PERC POLICY SERIES: REINVENTING ENVIRONMENTALISM IN THE NEW ERA* 8, 8-9 (Feb. 1995).

14. See 42 U.S.C. §§ 9601-9675 (1994).

15. GENERAL ACCOUNTING OFFICE, *SUPERFUND: LEGAL EXPENSES FOR CLEANUP-RELATED ACTIVITIES OF MAJOR U.S. CORPORATIONS* 4 (Dec. 1994).

average of forty-four percent at “high-cost sites.”¹⁶ Additionally, non-legal transaction costs siphon even more dollars away from cleanup activities.¹⁷ As a result, over 16.2 billion federal dollars¹⁸ have been spent over Superfund’s sixteen-year existence, yet a 1995 report found that “[o]nly 291, or 24 percent, of the 1,238 ‘worst’ Superfund sites have been cleaned up.”¹⁹

As a member of the Energy & Water Appropriations Subcommittee, I have grappled with the Department of Energy’s (“DOE”) Environmental Management (“EM”) program. This program is responsible for cleaning up our former nuclear defense production facilities.²⁰ A costly legacy of the Cold War, the EM program has a projected completion cost of anywhere from \$227 billion²¹ to \$500 billion²² — which is larger than both the Marshall Plan and the savings and loan bailout combined.²³

16. *Id.* at 25-26.

17. RAND CORPORATION, PRIVATE-SECTOR CLEAN-UP EXPENDITURES AND TRANSACTIONS COSTS AT 18 SUPERFUND SITES 9-11 (1993). The study cites as an example “engineering studies to characterize the waste at a site are [characterized as] transactional if their purpose is to assist in the search for . . . another PRP”

18. EPA, Office of Congressional and Legislative Affairs, Superfund FY 1981-FY 1998 (on file with the author). According to this report, the federal government has spent \$16,258,600,000 from fiscal year 1981 through fiscal year 1996. *Id.* The funding level for Superfund for fiscal year 1997 was \$1,394,200,000. *Id.* This figure does not include state, local or private expenditures for Superfund sites.

19. THE HERITAGE FOUNDATION, ISSUES ‘96 125 (1996) [hereinafter ISSUES ‘96]; see also Michael G. Oxley, *Superfund: Getting it Right in COMMON SENSE* 90 (Nat’l Pol’y F. ed., 1995).

20. See generally THE CONGRESSIONAL BUDGET OFFICE, CLEANING UP THE DEPARTMENT OF ENERGY’S NUCLEAR WEAPONS COMPLEX (May 1994).

21. DOE, OFFICE OF ENVTL. MANAGEMENT, THE 1996 BASELINE ENVTL. MANAGEMENT REPORT 4-4 fig. 4.2 (June 1996) [hereinafter 1996 BASELINE REPORT].

22. DOE, OFFICE OF ENVTL. MANAGEMENT, ESTIMATING THE COLD WAR MORTGAGE—THE 1995 BASELINE ENVIRONMENTAL MANAGEMENT REPORT XVI fig.4 Vol. 1 (Mar. 1995) [hereinafter 1995 BASELINE REPORT]. The report does state that the \$500 billion estimate represents a “scenario . . . which is not achievable at all sites with today’s technology.” *Id.*

23. See Paul Glasstris, *The Bipartisanship Diversion*, U.S. NEWS & WORLD REP., Dec. 23, 1996, at 37 (commenting that the S&L bailout “cost taxpayers more than \$130 billion”); Mathis Chazanov, *UN-OAU Envoy Says Prospects for*

While less well known than Superfund, the EM program is equally paralyzed from the constraints imposed by a politicized policymaking process. In the abstract, it would seem that solutions to a problem as unique as this would be directed by a tailor-made regulatory system. Not so. Instead, it is regulated by a maze of haphazardly-layered and often conflicting statutes, including: CERCLA, Resource Conservation and Recovery Act of 1976²⁴; Superfund Amendments and Reauthorization Act of 1986²⁵; Defense Nuclear Facilities Safety Board²⁶; National Environmental Policy Act²⁷; Toxic Substances Control Act²⁸; Air Quality and Emission Limitations²⁹; Water Pollution Prevention and Control Act³⁰; Atomic Energy Act³¹; Uranium Mill Tailings Radiation Control Act³²; Low-Level Radioactive Waste Policy Act³³; and Hazardous Materials Transportation Act³⁴; plus any and all applicable state and local regulations.

As a result, the DOE and their contractors must spend a large amount of their resources decoding an impenetrable regulatory behemoth instead of furthering their goals of stabilizing, treating and storing radioactive, hazardous, and mixed waste.

Just how much of our resources are diverted from cleanup to regulatory compliance? To answer this, I have found it very helpful to divide the current EM workforce into one of three categories. First are those workers who are directly involved in accomplishing cleanup or waste treatment in the field. Their responsibilities in-

Peace in Central Africa Slim, ASSOCIATED PRESS, Jan. 28, 1997 (“[t]he original Marshall Plan cost the United States \$13 billion”).

24. See 42 U.S.C. §§ 6901-6992k (1994).

25. Pub. L. No. 99-499, 100 Stat. 1613 (codified as amended in scattered sections of 42 U.S.C.(1994)).

26. See 42 U.S.C. § 2286 (1994).

27. See 42 U.S.C. §§ 4321-4370d (1994).

28. See 15 U.S.C. §§ 2601-2692 (1994).

29. See 42 U.S.C. §§ 7401-7671q (1994). This provision is also known as the Clean Air Act.

30. See 26 U.S.C. §§ 1251-1387 (1994). This provision is also known as the Clean Water Act.

31. See 23 U.S.C. §§ 2011-2297g-4 (1994).

32. See 42 U.S.C. §§ 7901-7942 (1994).

33. See 42 U.S.C. §§ 2021 b-j (1994).

34. See 49 U.S.C. §§ 5101-5127 (1994).

clude decontamination and decommissioning, deactivation, ground-water and soil remediation, and waste treatment. They often must wear head-to-toe protective gear including a respirator. I call these people "space suits." Second are workers involved in direct support of field activities, such as supervision, laboratory analysis, environmental monitoring, safety and health, waste characterization, safeguards and security, and waste monitoring. These people tend to wear lab coats; thus, I have designated them "lab coats." Finally are workers in support services such as human resources, financial management, legal and administrative support, and information services. I have designated them "business suits."³⁵

Five major sites make up seventy percent of the total costs allocated for EM.³⁶ According to DOE, in 1995 the percentage of its workforce devoted to "space suits" activities at the five sites were as follows: In Hanford, Wash., thirty-eight percent; Idaho, thirty-two percent; Oak Ridge, Tenn., sixty-seven percent; Rocky Flats, Colo., seventeen percent; and Savannah River, S.C., fifty-four percent.³⁷ Alternatively, the percentage of workforce devoted to "business suits" activities for fiscal year 1995 were: In Hanford, twenty-six percent; Idaho, nineteen percent; Oak Ridge, twenty-two percent; Rocky Flats, forty-nine percent; and Savannah River, fourteen percent.³⁸ The remaining percentage consists of "lab coats."³⁹

At first glance, it appears about twenty-five percent of the workforce is made up of employees who come to work in business suits. However, this number does not include the number of "business suits" that work at the Washington, D.C. headquarters.

Even without considering the hundreds of EM employees in Washington, D.C., why would we need twenty-six "business suits" for every thirty-eight who are actually doing the cleanup activities at the Hanford site. In Rocky Flats, why would we need forty-nine "business suits" for as few as seventeen "space suits?" I submit that

35. DOE uses the terms "mission direct," "functional support," and "support services" to define their workforce. The employees under these titles should match "spacesuits," "lab coats," and "business suits" respectively.

36. 1996 BASELINE REPORT, *supra* note 21 (tbl. preceding i).

37. OFFICE OF BUDGET, OFFICE OF ENVTL. MANAGEMENT, DEP'T OF ENERGY, ENVTL. MANAGEMENT FTEs AND COSTS 3 (Mar. 1996).

38. *Id.* at 2.

39. *Id.* at 3.

overregulation is the cause of these disproportionate and inefficient hiring practices.

III. OUR ENVIRONMENTAL POLICY: COLLAPSING UNDER ITS OWN WEIGHT

In the future, the negative consequences of an environmental policy that forsakes sound science for political expediency are bound to worsen. The reasons are clear. First, its inefficiency and counterproductivity are taking an increasing toll on our economic competitiveness. Second, our current regulatory scheme is unsustainable due to fiscal constraints.

Regulations come with a high price tag. Regulations cost approximately three times as much as they did in 1970.⁴⁰ In 1995, the total cost of complying with federal regulations (a large part of which are environmental) was \$668 billion or roughly ten percent of the Gross Domestic Product; by the year 2000, it is projected to increase to \$721 billion.⁴¹ This figure does not even include the costs of compliance for state and local regulations. In comparison, personal income taxes only cost Americans \$533 billion in 1995.⁴²

Certainly, I do not argue for the elimination of *all* environmental regulations. My experience at Chernobyl left me with a stark picture of what happens when a country with a weak economy fails to consider environmental consequences. Morale is low and funding levels are at times nonexistent. Moreover, a recent article described a former Soviet naval graveyard where idle ships and submarines are anchored in harbors and where "metal containers of spent nuclear fuel [lie]. . . . The containers are corroded, their lids are cracked and water flows in and out."⁴³ This current environmental condition is in addition to "[d]ecades of dumping radioactive waste

40. See HALEY BARBOUR, *AGENDA FOR AMERICA: A REPUBLICAN DIRECTION FOR THE FUTURE* 19 (Nat'l Pol'y F. ed., Regnery Pub. 1996).

41. SMALL BUSINESS ADMINISTRATION, OFFICE OF ADVOCACY, *THE CHANGING BURDEN OF REGULATION, PAPERWORK, AND TAX COMPLIANCE ON SMALL BUSINESS: A REPORT TO CONGRESS* 27 (Oct. 1995).

42. *Perspective—Regulation, The Hidden Tax*, INVESTOR'S BUS. DAILY, Oct. 7, 1996, at B1.

43. Fred Barbash, *Nuclear Specter Rises From Naval Graveyard; Old Soviet Base Harbors Risk of Catastrophe*, THE WASH. POST, Oct. 11, 1996, at A1 (citing a recent study by the Norwegian environmental organization Bellona).

into the sea.”⁴⁴

Fortunately, in the United States the inverse is true — we have a strong economy with many regulations. However, to argue for regulatory reform is an uphill battle. Regulations by their very nature are hidden from the consumer. And the consumer is often left in the dark about how regulation affects their budgets. Initially, regulatory cost is borne by business. Business in turn passes on this cost to the consumer. Indications abound that overzealous regulation reduces business efficiency, slows economic growth, and causes real wages to fall.⁴⁵ For example, federal and state regulations increase the sticker price on a car by an estimated \$2,000.⁴⁶ In all, environmental regulations cost the American family almost \$1,800 per year.⁴⁷

Small business is hit hardest by federal regulation. Mark Isakowitz of the National Federation of Independent Business noted that there is

growing bipartisan agreement about two phenomena that are taking place in America's small business sector. Number one, virtually all job growth in this country comes from small business. And number two, the burden created by federal regulations falls predominately and disproportionately on the very people we rely on to create these jobs.⁴⁸

Moreover, small business is less equipped to comply with each and every regulation. As we move into the twenty-first century we must move away from the perception that regulations only affect businesses like General Motors, McDonalds, and DOW Chemical. The local cleaner and hardware store and eventually the economy as a whole will have to bear this burden as well.

Also, it is important to note that our environmental policy is not immune from budgetary realities. As entitlements like Social Security and Medicare consume larger amounts of our total budget, discretionary spending will be squeezed. In 1995,

44. *Id.*

45. See ISSUES '96, *supra* note 19, at 91-92 fig. 4.

46. BARBOUR, *supra* note 40, at 19.

47. ISSUES '96, *supra* note 19, at 110.

48. BARBOUR, *supra* note 40, at 20 (citing testimony before the House Small Business Committee on July 28, 1993).

entitlements consumed approximately 51.4% of our federal budget.⁴⁹ If you include mandatory interest payments on the national debt, the amount of true mandatory spending equals sixty-six percent.⁵⁰ Discretionary spending consumed the remaining thirty-four percent⁵¹ of which just under one-third (\$174 billion) is for environmental protection.⁵²

When you combine current fiscal and economic trends, discretionary funding will continue to be reduced each year. By the year 2002 it is projected under current policy that entitlement spending plus interest payments will account for seventy-two percent of budget outlays.⁵³ Discretionary spending will have to decrease accordingly.

One can just imagine the juggling act required to balance the budget and provide for a national defense, a sound environment, a national infrastructure, and an education for our children. Therefore, there is a great incentive to reduce our regulatory burden now. I believe by simplifying our regulatory scheme and reducing the cost of compliance, we will be able to stretch environmental protection dollars further while maintaining sound environmental policy.

IV. SOLUTIONS WE CAN IMPLEMENT TO IMPROVE OUR NATION'S ENVIRONMENTAL REGULATORY SCHEME

Perhaps the most frustrating aspect of our nation's environmental scheme is that even after complying with all the paperwork requirements and fighting our way through the legal system, the amount of actual cleanup we have accomplished is *de minimis*.

49. See CONGRESSIONAL BUDGET OFFICE, THE ECONOMIC AND BUDGET OUTLOOK: FISCAL YEARS 1997-2006 42 tbl. 2-5 (May 1996) [hereinafter FISCAL YEARS 1997-2006]. This figure is calculated by dividing the \$822 billion of "mandatory spending" with the total federal budget of \$1.6 trillion.

50. *Id.* This figure is the \$822 billion in mandatory spending plus \$232 billion in interest payments divided by \$1.6 trillion.

51. *Id.* This figure is \$546 billion divided by the \$1.6 trillion budget.

52. See JOHN SHANAHAN, THE HERITAGE FOUNDATION, HOW TO TALK ABOUT THE ENVIRONMENT 3 (Sept. 6, 1996).

53. FISCAL YEARS 1997-2006, *supra* note 49, at 42 tbl. 2-5. This figure is \$1.29 trillion of mandatory spending plus \$311 billion of interest payments divided by the \$2.21 trillion federal budget.

After all, is our goal to cleanup the former nuclear defense facilities no matter what the cost or is it to make the environment safe for all Americans? In my opinion, the latter is the only course to take.

With a common sense, sound science approach, we could eradicate wasteful spending, and inefficient, overburdensome regulation. Ideas like cost-benefit analysis, risk assessment, and peer review should be the backbone of every regulation. Unfortunately, our environmental policy has decided it is best to chase every last fluorocarbon, regardless of cost.

Cost-benefit analysis would allow us to choose policy that maximizes outcome realized by America as a whole. For example, it costs over thirty-three billion dollars per year to save one life due to radionuclide emission control at uranium fuel cycle facilities.⁵⁴ Just think of what one-half or one-third of this money would do for cancer or AIDS research. Such regulations would fail the cost-benefit analysis. A similar analysis was used when the nation decided not to add seat belts to school buses due to the enormous costs and the relatively few casualties in school bus accidents.⁵⁵

DOE estimates the EM program will cost \$227 billion and will not be finished until after the year 2066.⁵⁶ Other recent estimates predict a cost that could potentially reach \$500 billion.⁵⁷ It is not certain what percentage of these costs goes toward complying with federal regulations. However, a reoccurring question is: How clean is clean? In setting their standard, the EPA assumes that young children will consume 100-200 milligrams of contaminated soil per day every day for 350 days.⁵⁸ Clearly this approach is impracticable.

We could save Americans tens of billions of dollars by bring-

54. See ISSUES '96, *supra* note 19, at 87.

55. See *National Schoolbus Safety Act*, H.R. 1815, 100th Cong., 1st Sess. 3 (1987); see also Charles E. Begley & Andrea K. Biddle, *Cost-Benefit Analysis of Safety Belts in Texas School Buses*, 103 PUB. HEALTH REP., Sept. 1988, at 479-85.

56. 1996 BASELINE REPORT, *supra* note 21, at tbl. 4-4.

57. 1995 BASELINE REPORT, *supra* note 22, at XVI.

58. Wayne T. Brough, *Superfund Unplugged*, in CITIZENS FOR A SOUND ECONOMY FOUNDATION: ISSUES AND ANSWERS 8 (Aug. 11, 1995).

ing common sense to this extreme position. Instead of making the former nuclear defense facilities into playgrounds where hungry children would apparently eat the soil, we could turn the sites into industrial zones or, alternatively, into non-residential recreational areas.

Risk assessment is another important consideration. Though similar to cost-benefit analysis, risk assessment focuses on the risk of harm compared to the benefit incurred. Again, all environmental regulations should be based on sound science and risk should be assessed according to the level of harm threatened. The expectation that such harm will actually occur, balanced against the cost to reasonably reduce the harm to safe levels, cannot be ignored. The "crisis" mentality disregards this notion, setting its sight on zero-risk.

Zero-risk is unattainable. The natural state of our environment is not at zero-risk levels. Most radioactivity exists naturally. In fact, the earth's atmosphere, the air we breathe, the water we drink, the soil we walk on, and the food we eat, accounts for eighty-two percent of the average American's annual dose of radiation.⁵⁹ Seventeen percent comes from medical X-rays, other medical tests, and from consumer products like color televisions or watches with illuminated dials.⁶⁰ The remaining one-half of a percent is from other sources, including uranium mining, the former nuclear defense sites, nuclear reactors, or nuclear fallout.⁶¹

Last is peer-reviewed sound science. As each new environmental issue bubbles to the top, a whirlwind of numbers, examples, counter examples, and more numbers are hurled around. With peer-reviewed science, the dust will be able to settle. Naturally, there will continue to be the battle of statistics, but common sense will not be turned on its head.

59. See DOE, PACIFIC NORTHWEST LABORATORY, HANFORD: YOUR ENVIRONMENT AND YOUR HEALTH 8 (Sept. 1995). This figure represents 300 millirem divided by 365 millirem (the total U.S. national average for yearly radiation exposure).

60. *Id.* This figure is 63 millirem divided by the total 365 millirem.

61. *Id.* This figure is 2 millirem divided by the total 365 millirem.

V. REGULATORY REFORM AND THE CREATION OF A SAFER AND
CLEANER ENVIRONMENT FOR THE TWENTY-FIRST CENTURY AND
BEYOND

I believe we have an excellent opportunity on this eve of the twenty-first century to reform our regulations and truly educate the public. However, we must be cognizant of the regulation's effects which we have dismissed for too long. Moving toward common sense approaches like cost-benefit analysis, risk assessment, and peer-reviewed sound science is necessary. And while I believe a sound economy and environment can coexist, overregulation threatens both.

I do not advocate the complete elimination of environmental regulations. Some environmental regulations are needed to provide a credible way to monitor the quality and safety of our ecology. However, inherent in a pro-environment regulatory scheme should be flexibility and local control, not the one-size-fits-all approach dominated by sound bites and effective politics.

