

Rachel's Environment & Health News

#110 - William Reilly Will Head U.S. EPA

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President-elect George Bush has named William Reilly to head the U.S. Environmental Protection Agency (EPA). What can we expect from Mr. Reilly?

For about 20 years, Mr. Reilly has directed the Conservation Foundation in Washington, DC. In 1987, the Foundation published a 614-page blueprint for environmental protection, called STATE OF THE ENVIRONMENT, A VIEW TOWARD THE NINETIES. Everyone should read at least three chapters: 3: "Toxic and hazardous pollutants," 7: "America's waste: managing for risk reduction," and 8: "Toxics in the air: reassessing the regulatory framework." The book is much stronger and more coherent than anything the EPA has ever published. Therefore, at the very least, you will be able to confront local EPA officials by reading passages from this book at public hearings, prefacing your remarks with, "Here's what your leader has to say on this subject."

If we can believe his book, Mr. Reilly will make a difference in at least three areas at EPA: (1) he will make more intelligent and restrained use of risk assessment; (2) he will emphasize the need for reliable information about wastes and their consequences; and (3) he will give greater emphasis to waste reduction.

Mr. Reilly's book says, "The best way to make sense out of the complex components and paths of waste streams is to examine the different kinds and degrees of risk and damage they create." (pg. 419). In principal, we agree. However we have all had "risk assessment" used against us by industry and its supporters in government. They focus the discussion on one aspect of "hazard," usually the potential to cause cancer in humans. They simply don't discuss any other health consequences, and they ignore non-human species entirely. Then they use a mathematical model to show how the chemical will move through the environment. (The mathematical model itself may be based on guesswork but it often seems convincing to local officials because its results are spit out by a computer.) They use these results to show that, based on one or two studies of mice or guinea pigs, the amount of chemical likely to reach the "average" person will only cause "acceptable" numbers of cancers. What is the "average" person? A completely healthy, well-to-do white male in the prime of life. What is an "acceptable" number of cancers? Industry and its supporters in government assume they have the "right" to kill one person in a million each year by exposure to each chemical for which a risk assessment is being done. (Where they got this "right" they never say.)

But risk assessment doesn't have to be carried out in this crude way. Mr. Reilly's book seems to indicate he'd do it differently.

Risk assessment asks two questions: First, what is the inherent hazard of the chemical? And, second, how can humans and other creatures become exposed to it?

Mr. Reilly's book recognizes that both hazard assessment and exposure assessment are exceedingly complex. Hazard assessment is complex because so little is known about the effects of most chemicals. "The science of risk assessment is relatively undeveloped. The National Research Council concluded in a 1984 report that fewer than 2 percent of the chemicals currently used for commercial purposes have been tested sufficiently for a complete health hazard assessment to be made. Adequate information to support even a partial hazard assessment is available for only 14 percent of the chemicals; for 70 percent, no information is available. Moreover, these percentages refer only to human health hazards. In general, environmental hazards are even less well understood...." (pg. 425)

Additional complexities include these: Some chemicals degrade into other, more toxic chemicals. For example, in the environment, trichloroethylene (TCE) may be transformed into vinyl chloride or 1,2-dichloroethylene, substances that are 2.5 and 5 times more potent than the original solvent. (pg. 422)

A single source of waste can endanger humans and, by a different route, wildlife, and can create an aesthetic nuisance with serious economic consequences (making beaches unfit for swimming, for example). Thus, there may be multiple risks from one chemical discharge.

Mr. Reilly discusses the difficulties in assessing exposure to chemicals, too:

The pathways of movement through the environment may be exceedingly complex and indirect. Air pollution may fall to the ground and become water pollution, eventually making its way to the oceans. Furthermore, it is difficult to assess the sensitivity of the people and the environment that will be exposed. A person's health, age, and exposure to other chemicals (besides the one being assessed) will affect that person's sensitivity to a chemical. For example, a person with asthma responds differently to air pollution than a person without asthma. A child may absorb more lead than an adult because children have a higher metabolic rate and are more active, and because some children eat dirt. (pgs. 421-422)

Mr. Reilly emphasizes the need for reliable information about wastes: "The first priority is to get more information about what wastes are entering the environment, how they are entering, and in what quantities.... [such information] is useful to... governments in planning for emergencies, [and] in setting priorities for regulatory action...." (pg. 454)

Mr. Reilly also thinks we need new information on health effects of chemicals. He says, "Much attention has been focused on cancer, and the ability to assess the risk from carcinogens has increased considerably in the past 10 years. Comparable progress needs to be made in improving methods to assess other types of health and environmental effects. After all, exposure to some chemicals can affect people's reproductive, immune, and nervous systems and can cause other problems as well." (pg. 455) Mr. Reilly's book also indicates the importance of pollution prevention. He says, "By contrast, the most effective, as well as most economical, way to reduce the risks associated with wastes in many cases is to reduce the amount that is generated and released to the environment." (pg. 410)

Mr. Reilly's book lists seven reasons why industry may want to reduce its production of wastes. Notice that strategies of the grass roots environmental movement play a key role in several of Mr. Reilly's 7 reasons:

- 1) higher cost of managing waste;
- 2) financial liability from lawsuits;
- 3) difficulties in siting new waste management facilities;
- 4) difficulties getting permits for existing waste management facilities;
- 5) difficulties cleaning up existing facilities;
- 6) shortages of liability insurance;
- 7) public concern about toxics.

Don't get us wrong. You will need to remain vigilant and aggressive in dealing with William Reilly's EPA. But George Bush certainly could have done a lot worse.

Get: William Reilly and others, STATE OF THE ENVIRONMENT: A VIEW TOWARD THE NINETIES (Washington, DC: Conservation Foundation [1250 24th St., NW, Wash., DC 20037; phone: (202) 293-4800], 1987; \$19.95 per copy.

--Peter Montague

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