But let me now move briefly to the three topics I think are important environmentalists have done a very good job of communicating. If they were presented with the possibility that some of our actions might have adverse effects on future generations of humans. If they were presented with that evidence, TO THE EXTENT IT IS NOW KNOWN, they would act. But so far, neither the governments nor concerned environmentalists have done a very good job of communicating. I left the Commission worried that we still teach our environmental scientists to be narrow thinkers, locked into the non-ecosystemic framework of their individual disciplines. And because science must, by its very nature, be value neutral, I worry about all of those scientists who think they must also be value neutral in their conclusions..."This is a book about the perceived conflict of an individual being a conservative Republican and, at the same time, an environmentalist. I do not see the conflict. I am both. For nearly forty years I have developed and practiced my conservative philosophy. I have only been an environmentalist for five years, but even so, I have become convinced that current environmental policies are putting our children in harms way. My first broad exposure to serious environmental concerns resulted from my service as the United States Chairman of the International Joint Commission. As I began to meet with scientists, environmental activists and industrialists, I intuitively applied my conservative philosophy and my experience as a practical political decision maker to resolving problems of the environment...."...preserving our natural resources should be a conservative tenet. Restoring degraded natural resources to something close to what they used to be, surely should be a conservative goal. "I have never met a conservative who prefers dirty air to clean air, or fouled water to healthy water. Nor have I met any conservation activist who want to expose their children and grandchildren to persistent toxic substances. Conservative friends of my age often reminisce about fishing in streams so clean you could drink from them.... Active environmentalists might find it hard to believe, but these same friends, and most of the public for that matter, have not yet faced the possibility that some of our actions might have adverse effects on future generations of humans. If they were presented with that evidence, TO THE EXTENT IT IS NOW KNOWN, they would act. But so far, neither the governments nor concerned environmentalists have done a very good job of communicating." But let me now move briefly to the three topics I think are important when considering environmental protection; they are PRIORITY SETTING, the somewhat intellectually dishonest demand for CERTAINTY before exercising caution, and MORALITY. Priorities: We Should Focus on Chlorine Why do I think it important to set environmental PRIORITIES? Well, human nature is the first reason. Let me give you an example of how an average person, already quite cynical about the ability of government to perform its most basic duties, might react to news of a new environmental problem. That average person might say: "Okay, I have heard enough about lead to agree that it is probably harmful. I want to protect my kids from exposure to lead. And I might believe that dioxins (whatever they are) and pesticides are bad for me, if, you did not also tell me that movie house popcorn, eggs and bacon, smoking tobacco, coffee, product packaging, landfills and incinerators, meat, whole milk, hormones injected into cows, methane excreted from cows, radon, electromagnetic fields, ozone, forestry management, nuclear energy and carbon generated energy, hot-dogs, herbicides, automobiles, plastic, asbestos, vinyl, breast implants and Mexican food are all bad for me. It is just too much to worry about, so I will worry about none of it." Successful environmental protection depends upon public pressure. But when the public hears one side say everything is bad, and the other side say nothing is bad, the thought is mentally excused from their concerns. It is easier to believe that nothing is bad, rather than to believe that everything is bad. The news media add to the confusion with their concern about balanced stories. Quite often a group of scientists will issue various papers setting out a suspected linkage between the discharge of some substance at the local factory and adverse health effects in a community. Reporters will quiz those technical folks at length and take all of their supporting documents. To balance the story the reporter calls the local factory for their side of the story. Technical people are normally not available, but Fred, the P.R. guy always is. Fred says "those people have bad science and are premature in their findings." The story then reflects those two views, with a headline that probably mentions bad science. The reader has a choice, when absorbing such a balanced story. Change her habits or just go on doing what she has been doing. And, of course, it is easiest to keep on doing what we have been doing. It was interesting to me to observe, in both the United States and Canada, that the overwhelming amount of effort and money being expended through the environmental agencies is directed toward the wrong end of environmental problems. The vast number of bureaucratic regulators throughout our society harassing small business people, the red tape and governmental paper work bogging down opportunity, and the huge expenditure of tax money are primarily directed at how we deal with the waste product after we have done what we should not have done to begin with. I just kept wondering, "why don't we figure out a way how not to do the wrong thing in the first place?" As a conservative, that makes sense to me. Prevention is not only safer from a health standpoint than remediation, it is much less expensive to business and to society. So we need to set priorities. We need to attack the problems before they happen, and we need some consensus on where to start. My colleagues and I on the International Joint Commission thought chlorine as an industrial feed stock would be a good place to begin. Certainty: We Should Shift the Burden of Proof Now for some words about CERTAINTY. First, let's start with the fact that governments regulate some chemical substances. They do that by issuing permits based upon certain standards. The regulatory standards tend to be compromises between government and some of the interests. Such regulation presumes a tolerable amount of exposure, even though eminent scientists tell us there is no human assimilative capacity for some of those substances....
Whenever a suggestion is made to protect health, especially human health, we hear about bad science and the lack of scientific certainty. We heard those claims in the breast implant discussions, and we heard it again recently as the tobacco industry testified before Congress. Still governments demand absolute scientific certainty of the cause/harm linkage, before changing a standard. And industry denies responsibility because absolute certainty of the causal relationship to the harm has not yet been found. Think about that. What other aspect of our lives demands such certainty before exercising caution?

Not the law --we convict people on the subjective judgment of just twelve individuals. Not education --where 70% can be a passing grade. Not religion --where there is always room for forgiveness and atonement. Not health care --take two aspirins and call me tomorrow. Certainly not the news media --who never seem to be accountable for what they said yesterday. Accounting? Engineering? Architecture? All have room for error, with miscellaneous accounts, sway factors, etc., etc. But in the governmental regulation of the manufacture, use and disposal of persistent toxic substances, we demand scientific certainty. We demand absolute proof of the causal relationship to harm. And the certainty we demand is that the onerous substance causes the harm, not that the substance does not cause the harm.

So the onus is on you. And on me. And on our unsuspecting neighbors. Under the present system, it is our personal responsibility as private citizens to know all there is to know about advanced chemistry. To know how exotic chemicals react when they interact with each other. To know what chemicals are being used and discharged, and to know what effects all of that might have on us and our progeny.

The U.S. and Canadian governments estimated that somewhere between 60,000 and 200,000 chemicals are being discharged into the Great Lakes. A pretty wide range, wouldn't you say? What it tells us is that we don't even know for sure what is being discharged. We do know, however, that most of it has never been tested. The chemical manufacturing industry was upset with me over the recommendation to treat chlorine as a class. They say that each substance must be looked at one at a time to determine its potential for harm. Should we take them seriously and begin to look at 60,000 to 200,000 chemicals one at a time? If so, we might get a good start by the year 3000 or so. So, as you enjoy the Great Lakes, or as you go about your daily business, what is being discharged into the environment might adversely affect you, your child or your grandchild. But no real caution can be required of the discharger because there is no absolute certain proof that an exposure by a young girl might affect the reproductive ability of her yet to be born child. Eighty percent certainty of such harm is not good enough. Ninety percent, so far, is not good enough. We need one hundred percent absolute proof of harm, or we keep on doing what we have been doing. Surely we need to change our way of thinking.

[To be continued next week.]

[1] The IJC’s recommendations are summarized in Peter Montague, "Our Greatest Accomplishment: Grass-roots Action Has Forced a Major Shift in Thinking," THE WORKBOOK Vol. 19 No. 2 (Summer 1994), pgs. 86-90. Paper reprints available for $2.00; electronic copy available free (email your request to erf@igc.apc.org).

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