

Condemnation of Over-Regulated Toxic Properties

Rights Versus Regulations

The American newspaper editor and critic H. L. Mencken once said that “the whole of practical politics is to keep the populace alarmed (and thus promising to lead them to safety), by menacing it with an endless series of hobgoblins, all of them imaginary.” Unfounded environmental health scares are modern examples of the politics of fear, junk science and the “liability model” of law, appraisal and engineering.

Many engineers, real estate appraisers, attorneys, so-called “regulatory scientists,” and government real estate personnel have, for the most part, accepted the “liability model” in dealing with so-called toxic substances in real estate without any question of whether it is in conflict with basic Constitutional property rights protections. However, newer federal case law (*Daubert v. Merrill-Dow Pharmaceuticals*) and emerging scientific skepticism about the high costs and minute benefits that result from over-stringent environmental protection standards is raising the question of whether such environmental regulations are in conflict with just compensation law.

Assuring Just
Compensation
and Full
Disclosure of
True Toxic Risk





*The term
“Love Canal”
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“American
chemical tragedy.”*

By Wayne C. Lusvardi

Government agencies must assure the public that property to be used for public purposes such as schools, parks and other facilities is free of environmental hazards, even if need be, purely perceived hazards. However, where environmental protection standards come into conflict with the legal standard of fair market value in just compensation law is when such standards are based on irrational fear, unknowledgeable parties, or damages caused by the public project for which property is acquired. As such, it is important that government real estate personnel separate fact from fear when acquiring so-called contaminated property for public purposes by the exercise of condemnation power or the threat thereof. To this end, a suggested reading list follows this article of impartial educational materials that avoid the rival claims of industry, environmentalists and advocacy law.

**A Case of Toxic Hysteria:
Love Canal - 1978**

Before elaborating on the difficult issue of acquiring environmentally over-regulated real estate by eminent domain, we must digress for a moment to discuss the classic case that stimulated legislation for the clean up of potential school sites and the federal "Superfund" program.

The term "Love Canal" is synonymous with the misnomer "American chemical tragedy." Love Canal is located near the honeymoon resort of Niagara Falls, but is not named for such. It takes its name from William Love, an entrepreneur who in the 1890s unsuccessfully planned to build a massive city around Niagara Falls. The plan entailed the digging of an unfinished canal, later used as a landfill by the Hooker Chemical Company and the city of Niagara Falls to dispose of industrial, chemical and municipal waste products. After the canal was filled to capacity, it was sealed under a clay lining.

The Hooker Chemical Company donated the site in 1953 to the Niagara Falls School Board for a new school and park in lieu of condemnation. The School Board rejected Hooker's request to put a "reverter clause" in the deed. Nonetheless, disclosure, non-liability

and non-disturbance clauses were included. During the next 35 years, the clay lining was disturbed by the city in the course of street improvements, in violation of conditions that there be no digging or construction on the site beyond a school and park.

In the late 1970s heavy rains and flooding brought seepage of black sludge and odors from the then-filled canal to the ground surface and subsurface migration into basements of homes. The Hooker Company (a.k.a. Occidental Petroleum) trenched around the canal and built a drainage system that controlled the situation. Even though the Hooker Company did not have a clean environmental record at other sites, their prior disposal methods at Love Canal conformed to legal and industrial standards of the 1940s and 1950s (Mazur, 1998: 24-25).

However, in 1978 Love Canal was transformed from a manageable local problem into a worldwide media event when the New York State Health Commissioner declared a potential public health emergency and evacuation of women and children from the neighborhood. Hysteria resulted from a health study conducted for the Environmental Protection Agency (EPA) and leaked to the media that erroneously indicated a higher incidence of genetic damage in the vicinity of the canal.

This study was prepared by a bitter ex-employee of the Dow Chemical Company who left employment with that company in a dispute over quality of work. No less than the National Institutes of Health and many prominent scientists later discredited this study as seriously flawed science.

The news media compounded the problem by imparting sensationalism, relying on prejudiced sources, villainizing big corporations and casting government agencies as bureaucratic and uncaring. A made-for-television movie about Love Canal produced after the incident left a false impression on an unknowledgeable public that mere proximity to minute amounts of chemicals somehow was harmful to the residents. Once the percep-

tion of hazard was created, persuasion and the politics of fear took over.

Ultimately, the federal, state and local government relocated residents, purchased over 1,000 homes, razed the school and cleaned-up the site at a cost to taxpayers of \$50 to \$100 million (Mazur, 1998: 161). Credible science had no bearing on the decisions to evacuate Love Canal residents or buy homes (Mazur; Wildavsky; Landy).

Twenty years after the Love Canal incident there is "no illness, not even a cold, that can properly be attributed to living next to Love Canal" (Wildavsky, 1997: 152). Even at the height of the purported threat to human health, Love Canal residents did not move themselves or their children out, thus indicating they did not perceive the health threat as severe. The story of Love Canal is a mixture of faulty science, distorted media and political necessity during the critical election year of 1978. What then was the basis of hysteria at Love Canal? Fear of loss of home values, not fear of health hazard, seems to be the underlying cause that propelled the residents to panic and make demands for political action (Mazur, 1998: 210).

Massive amounts of physical dislocation and stress were inflicted on households. Lawyers, environmental engineers, expert witnesses and the press benefited. The real casualty at Love Canal was the truth about the small risks to human health posed by trace chemicals and the negligible benefit from the enormous remediation costs.

**The Regulatory Response
to Toxic Waste Sites**

In response to the Love Canal incident, a wave of amendments to state eminent domain laws were adopted that require the remediation of hazardous substances on property to be acquired by school districts. An example of such laws is excerpted below from the California Code of Civil Procedure:

**Sec. 1263.720: Presence of
Hazardous Substance-Required Action.**

(a) Upon petition of any party to the proceeding, the court in which the

proceeding is brought shall specially set for hearing the issue of whether any hazardous substance is present within the property to be taken.

(b) If the court determines that any hazardous substance is present within the property to be taken, the court shall do the following:

1. Identify those measures constituting the required action with regard to the hazardous substance, the probable cost of the required action and the party that shall be designated by the court to cause the required action to be performed.
2. Designate a trustee to monitor the completion of the required action and to hold funds deducted from amounts otherwise to be paid to the defendant pursuant to this title, to defray the probable cost of the required action.
3. Transfer to the trustee funds necessary to defray the probable cost of the required action from amounts deposited with the court ...

Sec. 1263.740: Appraising Property - Presence of Hazardous Substance Not To be Considered. The presence of any hazardous substance within a property shall not be considered in appraising the property, for purposes of Section 1263.720.

Under the above law, school districts can deduct the cost of cleanup against the appraised "unimpaired" market value of the land. Property owners are left to pursue third parties for liability, but this is often difficult, costly and protracted. The law provides that property owners and school districts can seek to separate the contamination issue from the valuation issue in two separate court actions. School districts typically take the approach that contamination affects the value and should be tried in one combined action.

Conversely, property owners may desire to have a separate hearing to determine the contamination issue because they may believe that contamination is minimal or nonexistent. The critical factor in any such separate court action to determine contamination issues

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During his career, he has been responsible for the acquisition of more than \$200 million of real estate, including such projects as the World Trade Center and Bus Terminal expansion programs in Manhattan.

Cottone is President of Property Trust Advisory Corporation, and Chairman of Ascott Investment and is active nationwide in real estate investment and development. He is a Past President of RESSI, the Real Estate Securities and Syndication Institute, was a member of the Executive Committee of the National Association of Realtors, and is a former Governor and Vice Chairman of the National Association of Securities Dealers. He is a CRE, a Counselor of Real Estate,

A Past President of the New York Chapter of the International Right of Way Association, he received the Pennsylvania Chapter's Professional of the Year Award in 1976 and the Louise L. and Y.T. Lum Award from IRWA in 1995. Cottone was General Counsel of the IRWA from 1976 to 1982, and is currently General Counsel. He was additionally a Trustee of the Education Foundation for 15 years. A graduate of Columbia College and the New York University School of Law, he is a member of the New York Bar.



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is whether legal rules of evidence must comply with scientific standards of proof or may allow subjective testimony.

The Daubert Evidence Rule: Data Over Opinion

New federal law in the U.S. Supreme Court decision in *Daubert v. Merrill-Dow Pharmaceuticals*¹ (i.e., the "Daubert Rule") has changed the rules of evidence in court cases involving technological issues, such as hazardous waste sites, construction defect liability, investment property fraud, damages in full and partial acquisitions for public works projects and other potentially harmful conditions impacting real estate.

The Daubert Rule, incorporated into Federal Rules of Evidence 706 and similarly adopted by 27 state governments, establishes an active role for judges as "gatekeepers" of what is admissible evidence in technology related cases based on compliance with the scientific method. An issue requiring scientific knowledge is reliable if it is grounded in the methods and procedures of science and is relevant if the "reasoning or methodology properly can be applied to the facts in issue." Moreover, it must be demonstrated that the "act complained of probably, or more likely than not, caused the subsequent disability (i.e., damage)"²

As related to the issue of toxic waste sites, the Daubert tests mandate a shift

FIGURE 1

Substance	Non-Toxic or Beneficial Dose	Toxic Dose	Lethal Dose
Alcohol (ethanol blood levels)	0.05%	0.1%	0.5%
Carbon Monoxide (% hemoglobin bound)	< 10%	20-30%	>60%
Aspirin	0.65 gram (2 tablets)	9.75-gram (30 tablets)	34 grams (105 tablets)
Ibuprofen (Advil, Motrin)	400 milligrams (2 tablets)	1,400 milligrams (7 tablets)	12,000 milligrams (60 tablets)

Source: National Library of Science, Toxicology Tutor I: Basic Principles (web site address: <http://sis.nlm.nih.gov/toxtutor/1/all.htm>)

to empirical testing rather than reliance on subjective judgment of environmental engineering experts, anecdotal testimony, the clinical appraisal method and the reputation of appraisers. The Daubert evidence rule reaffirms the exclusion of factors typically disallowed in eminent domain proceedings where the issue of contamination is handled separately such as irrational fear, panic and hysteria exhibited in the Love Canal incident. Even where the market reaction to purported environmental conditions can be reliably estimated, the courts are refusing such evidence if there is no established underlying likelihood of health risk or rational fear thereof.³

Toxic Science: "The Poison is in the Dosage" Not the Substance

In response to totally blown out of proportion environmental incidents such as Love Canal, a number of scientists unconnected with industry or environmentalism have raised serious questions about the magnitude of real danger from the byproducts and emissions of technology (see Lewis, Ottobani, Moore, Gots). Dr. M. Alice Ottobani, Ph.D., a toxicologist with the California Department of Public Health for 20 years, in her book *The Dose Makes The Poison: A Plain Language Guide to Toxicology*, has aptly summarized the issue as quoted below:

"People know that water always runs downhill, that apples always fall to the ground when their stems break and that the sun always traverses the sky from east to west. Natural laws are immutable, constant and predictable. So it is with laws that govern the behavior of chemicals, natural or synthetic. The toxic effects of a given chemical depend on dose (how much), frequency of exposure (how often) and the route by which the chemical enters the body. It has always been thus and there is no reason to believe it will ever be otherwise.

Fear of many synthetic chemicals has not abated, despite lack of objective evidence that they have been detrimental to public health. Americans are living longer and are healthier than ever before in our history. Nevertheless, a significant segment of our population still believes that many synthetic chemicals are harming them and threatening them with cancer. Adults who remain resistant to chemophobic fears for their own health are challenged to come into the fold with stories of dire consequences for their children.

Many years of service as a public health toxicologist ... made it disturbingly clear to me that an inordinate fear of chemicals was the rule rather than the exception among the general public ... Headlines tell us about poisons in our food, poisons in our water, poisons in our air, poisons everywhere. The indiscriminate use of the word has brought us into an era of what might be called poison paranoia.

Whenever some misfortune occurs for which we have no ready explanation—an illness, a mischance of nature, a declining wildlife species—we look to blame some chemical. ... There are ... dangers in news media toxicology and its offspring, poison paranoia. One is the cry-wolf syndrome ... It is well known that to call everything bad, in effect, is to call nothing bad ... (O)ne of the basic tenets of modern toxicology (is): "What is it that is not poison? All things are poison and nothing is without poison. It is the dose only that makes a thing not a poison."

The conclusions of impartial science are unequivocal when it comes to the hazards posed by most environmental substances embedded in real estate: the typical dosage is too small or nonexistent to have a scientifically discernible negative effect on public health. This is called the "dose-response" relationship in toxicology and medicine. In fact, small doses of substances often can be beneficial. This is called the "reverse effect." We experience the "dose-response" relationship and "reverse effect" with common every-day products and substances as shown in Figure 1 to left.

Of course, small doses of substances over long periods of time such as tobacco or occupational asbestos, if worsened by combining the two and by bad diet, can shorten some human life spans. Dosage determines whether a substance will be a remedy or a poison with a number of highly regulated technological by-products and emissions that are associated with real estate.

Credible longitudinal health studies generally have not proven that typical exposures to substances associated with real estate are harmful, such as closed landfills, intact asbestos insulation, lead-based paint, weak electro-magnetic fields, radon gas hot spots naturally emitted from the earth, sick building syndrome and dioxin (see Moore; Wildavsky; Gots; Foster, Bernstein, & Huber). In many cases, the "background effect," or natural level of exposure to such substances, is much higher than the exposure from human made technological by-products or emissions.

One of the major disputes in to "thresholds." Might a chemical or emitted agent that produces cancer in the laboratory at a high dose produce it at low dose levels typical of environmental exposures? Not commonly known to the public is that all government toxic safety thresholds are intentionally set at zero exposure (Gots: 146-148; Moore, 1997: vii). Using the examples shown in the above table, a zero threshold or no threshold safety policy is equivalent to saying that any amount of aspirin, ibuprofen (Advil), or even air or water,

FIGURE 2

Illustration of Exaggerated Risk of Death by Jumping From Tall Building Using Government No Threshold Linear Extrapolation Model

	1,000,000 People Jump (age 18-50)	No. Deaths Assuming 99.999% People die	Extrapolated Mortality Risk Level		Actual Probable Lethality Rate
			By Ratio	By Percent	
300 feet	Tall Building	99,999	9.999 in 10	99.99%	99.999%
30.0 feet		99,999	1 in 10	10.00%	10.00%
3.0 feet		9,999	1 in 100	1.00%	0.00%
0.3 feet		999	1 in 1,000	0.10%	0.00%
0.03 feet		99	1 in 10,000	0.01%	0.00%
0.003 feet		9.9	1 in 100,000	0.001%	0.00%
0.0003 feet		0.99	1 in 1,000,000	0.0001%	0.00%

(adapted from R.E. Gots, M.D., Ph.D., Toxic Risks: Science, Regulation and Perception, 1993: 146-147)

FIGURE 3

The Cost of Cleaning Up Polluted Sites

Category	Number of Sites (estimated)	Estimated Cost (\$billion)
Superfund abandoned sites	4,000	\$80-\$120
Federally-owned sites	5,000-10,000	\$75-\$250
Corrective action on active private sites	2,000-5,000	\$12-\$100
Leaking underground storage tanks	350,000-400,000	\$32
State law mandated clean-ups	6,000-12,000	\$3-\$120
Totals	367,000-431,000	\$202-\$622

(source: Stephen Breyer, Breaking The Vicious Circle: Toward Effective Risk Regulation, 1993: 18-93-18)

FIGURE 4

Risk and Cost Effectiveness of Selected Regulations

Regulation	Year Issued	Health or Safety	Agency	Baseline Mortality Risk Per Million Exposed	Cost per Premature Death Averted (\$ in 1990)
Hazardous Waste Land Disposal Ban	1998	H	EPA	Two (2) people**	\$4.190 billion
Municipal Solid Waste Landfill Standards	1988*	H	EPA	<One (1) person**	\$19.207 billion

(source: U.S. Government Budget for Fiscal Year 1992, Table C, Part 2, Page 370)

is harmful, which is clearly not the case.

Dr. Ronald E. Gots, M.D., Ph.D., in his book *Toxic Risks: Science, Regulation and Perception* has devised a graphic aid in understanding how unrealistic such government safety standards are by employing an analogy of the survival risks of jumping off a tall building 300 feet high (see Figure 2). Assume the height of a building represents the dosage of a chemical. Very high buildings reflect high doses. Assuming a hypothetical 99.99 percent mortality ratio, if one million people jump from a tall building, 999,999 will die. It is assumed that for every 10 percent that the building height is reduced, the number of deaths is reduced by a similar ratio. Thus, 99,999 people die if the building is 30 feet high. At 3 feet, it is assumed 9,999 people will die. This assumption is false, however, because once we reach a reasonably low height (or threshold) of say 3 feet, no one will die. The linear extrapolation model predicts 9,999

deaths from jumping off a building 3 feet high, 999 deaths at 0.3 feet (3.5-inches) high and a preposterous one death at 0.0003 feet high.

The government regulation of toxic waste sites, asbestos, lead, radon, electromagnetic fields, sick building syndrome, dioxins, PCBs, etc. follows this misleading linear extrapolation model (Moore, 1997; Gots, 1993). In our example of the survival risk of jumping off a tall building, the toxic risks associated with most substances embedded in real estate is analogous to the risk of jumping from a 0.0003-inch high building (or extremely low). The linear extrapolation model used to set environmental risk standards by government may provide assurance of absolute safety, but greatly overstates the risk to human health. The real risk from waste sites is exaggerated. Thus, the deduction from a condemnation award for toxic clean up costs would be based on the irrational fear of the public, a lack of knowledge of the parties as to

the real risk involved and the influence of the public project to require unrealistic safety levels for public facilities. It goes without stating that these factors must be legally excluded in condemnation proceedings and real estate appraisals.

Hazardous or Benign Waste Sites?

The unproven harm from mere physical proximity or exposure to miniscule amounts of substances from so-called hazardous waste sites reflects the dosage principle of toxicology described above. Aaron Wildavsky in his book *But Is It True? A Citizen's Guide to Health and Safety Issues* (1995: 183), has summarized the scientific findings on hazardous waste sites as follows:

1. *There are thousands of inactive waste sites around the country where waste chemicals to some degree migrated into the surrounding environment. At many of these sites, chemicals have made their way into underlying aquifers (water basins).*

2. *There is no peer-supported epidemiological (causation) evidence of inactive waste sites having caused chronic illnesses such as cancer in surrounding communities.*

3. *There is no occupational-study evidence of serious illness stemming from chemical exposure levels as low as those associated with waste sites.*

For example, a one-year-old child would have to ingest unusually "large amounts of dirt ... or play on contaminated soil five days a week, seven months a year, for five straight years, wearing only swim trunks" to obtain even the minimal poisonous dosage from most hazardous waste sites (see William M. Carley, "Battle of Housatonic Pits GE Against EPA," *Wall Street Journal*, July 27, 1998, b1-b6). Given that environmental regulations incorporated into eminent domain law to protect the public from so-called hazardous waste sites provide no health benefits, it might be more accurate to term many of them "benign waste sites" (definition of benign: of no reasonable danger to health).

EASEMENT CORRIDOR FOR SALE

LOCATION: N. E. Pennsylvania extending northward from East Stroudsburg Boro to Blakely Boro near the City of Scranton

LENGTH: Approximately 40 miles

WIDTH: 200 feet & 150 feet (with 50 ft. trim area)

GENERAL: The easement corridor was assembled for an electric transmission line, which was never built. Survey information for the corridor is up-to-date.

CONTACT: For additional information contact:

Kathy Seyler or Tom Clime
GPU Energy Real Estate Dept.
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Tragically Over-Regulated Toxic Sites ("T-O-R-T-S")

It is the contention of this article that it is bad law to impose toxic clean-up costs on owners of property acquired by condemnation merely because environmental regulations mandate unrealistic and unscientific levels of safety to protect an unknowing and uninformed public from negligible risks. Government agencies should become aware that where the need to protect the public from toxic substances originates from perceived rather than actual harm, the need for site remediation is "project induced" and must be considered a damage to the property not a credit due the condemnor.

It is further asserted that current real estate disclosure laws do not go far enough in informing both property owners and public agencies that although science cannot rule out risk, the true risk to human health from most hazardous substances associated with real estate is probably nil or extremely low. Real estate disclosure laws are built on half-truths, but just compensation law should be based on "the whole truth and nothing but the truth" (see Richard B. Schmitt, "In U.S. Courts, the Whole Truth is Often Anything But," *Wall Street Journal*, October 9, 1998: b1).

Because many potentially toxic substances embedded in real estate are over-regulated, the following acronym suggests itself: "T-O-R-T-S" - Tragically Over-Regulated Toxic Sites. As used here, the word "tort" has a dual meaning. Legal torts are defined as "a wrongful act other than a breach of contract for which relief may be obtained in the form of damages or an injunction" (Webster's Dictionary). Toxic torts are legal actions alleging damage due to toxic substances. "T-O-R-T-S" is an acronym for real property that is damaged due to toxic regulations.

With the pendulum of the law, science and public opinion swinging toward questioning the reasons behind regulation of toxic substances, government agencies may find it increasingly difficult to sustain favorable outcomes in condemnation cases where the issue of contami-

nation is heard separately. Government agencies and public utilities should be aware of the inherent conflict between environmental protection regulations and condemnation law.

It is the duty of government real estate personnel to uphold the paramount constitutional right of just compensation for property taken for public purposes

over unscientific and non-beneficial environmental regulations to protect the public from mere perceived environmental risks. To do otherwise may result in a form of "double taking" where owners subject to condemnation of their property are additionally compelled to pay for excessive toxic clean up standards. ■ *Cont'd on page 42*

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Executive V.P. Report

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invoice is 60 days in arrears. [More information to be provided by the IPDC prior to implementation]

- Approved recommendations to modify IRWA Instructor policy [More info to follow]
- Acknowledged a \$3,000 donation from Chapter 11, San Diego for development of the new Course-400 [Thanks Chapter 11]
- Approved IPDC concept to enhance the SRWA Program [Information to be discussed at the Region Forums]
- Approved extension for all Category "H" members to December 31, 2001 for SRWA completion
- Modified Employer of the Year Award Program to expand to two Awards based on the size/type of the employers
- Approved policy which directed Headquarters staff to file the consolidated income tax return, for the HQS and Chapters, with the IRS on the due date of May 15 of each year [The only impact of this policy will be on those chapters that do not file with the Headquarters by the set April 1 deadline—they will have to file individual returns] ■

Toxic Properties

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The author wishes to clarify that his opinions may not reflect the viewpoints or policies of any particular employer or other appraisal consultant.

Notes

1. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2706, 125 L. Ed. 2d 469 (1993) incorporated into Federal Rules of Evidence 706.
2. Steven J. Milloy, "Expert's Testimony Excluded Under Daubert As Irrelevant, Unreliable, Ninth Circuit Says," Westlake Solutions, Internet address: <http://junkscience.com/news/daubert/html>, 1997: 1.
3. A reasonable fear is one that is predicated on knowledge, corroborated by reliable medical and scientific opinion, that it is "more likely than not" that the feared consequence of exposure to environmental hazards will develop in the future. *San Diego Gas & Electric Co. v. Superior Court of the State of California for the County of Orange*, Respondent, Martin Covello and Joyce J. Covello, parties of interest, August 22, 1996, Ct. Appeal 4/3 No. G216256.

A Non-Technical Reading List on Toxic Risk: Law and Science

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S. Ct. 2706, 125 L. Ed. 2d 469 (1993) incorporated into Federal Rules of Evidence 706.

Peter W. Huber, *Liability: The Legal Revolution and Its Consequences*, Basic Books, 1990.

Peter W. Huber, *Galileo's Revenge: Junk Science in the Courtroom*, Basic Books, 1991.

Environmental Science

Kenneth R. Foster, David E. Bernstein and Peter W. Huber, *Phantom Risk: Scientific Inference and the Law* (MIT Press, 1993).

Ronald E. Gots, *Toxic Risks: Science, Regulation and Perception*, Lewis Pub., 1992.

H. W. Lewis, *Technological Risk*, Norton, 1990.

Adam J. Lieberman and Simona C. Kwon, *Facts Versus Fears: A Review of the Greatest Unfounded Health Scares of Recent Times*, American Council on Science and Health, 1998.

Cassandra Chromes Moore, *Haunted Housing: How Toxic Scare Stories are Spoiling the Public's Out of House and Home* (Cato Institute, 1997).

Aaron Wilkavsky, *But Is It True? A Citizen's Guide to Environmental Health and Safety Issues*, Harvard University Press, 1995.

Environmental Risk Policy

H. Aaron Cohl, *Are We Scaring Ourselves To Death? How Pessimism, Paranoia, and Misguided Media Are Leading Us Toward Disaster*, Angus, 1997.

Susan L. Cutter, *Living With Risk*, Arnold Publishing, 1993.

Marv K. Landy, et al., *The Environmental Protection Agency: Asking The Wrong Questions*, Oxford University Press, 1994.

Allan Mazur, *A Hazardous Inquiry: The Roshomon Effect At Love Canal*, Harvard University Press, 1998.

Toxicology

M. Alice Ottobari, *The Dose Makes The Poison: A Plain Language Guide to Toxicology*, 2nd Ed., Van Nostrand, 1997.

National Library of Science, *Toxicology Tutor I-III* (web site address: <http://sis.nlm.nih.gov/toxtr/1/a11.htm>).

Biostatistics, Epidemiology

Michael Fumento, "Chapter 3: A Fairly Brief, Nonboring Lesson in the Pitfalls of Amateur Epidemiology," in *Science Under Siege*, Quill Books, 1993.

Steven Milloy, *Science Without Sense: The Risky Business of Public Health Research*, Cato Institute, 1995 (see web site: <http://www.junkscience.com/news/sws>)

Media Reporting of

Environmental Issues

V. T. Covello, "Communicating Right-To-Know Information on Chemical Risks," *Environmental Science and Technology* (23,12,1989).

Dorothy Nelkin, *Selling Science: How The Press Covers Science and Technology*, WH. Freeman, 1995).

Peter M. Sandman, "Mass Media and Environmental Risk: Seven Principles," in Roger Bate, ed., *What Risk? Science, Politics and Public Health* (Butterworth-Heinemann, 1997): 275-284.

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Opinions

Cont'd from page 5

parks in all directions. The downtown area is also beautiful and safe and clean and so people-friendly that I actually watched a young blind man jaywalking without causing so much as a horn honking. I wondered at the lack of litter because I did not see clean-up crews. Then I realized those people don't throw their trash on the ground whether they are on city or rural roadways. Toto, I don't think we're in California anymore.

Following my return home, I was privileged to attend the two-week Course 101 in Riverside, California. It was an excellent and informative presentation and I recommend it highly to anyone at any stage of his or her career. I have been an Eminent Domain appraiser since 1983 and I found it educational. I also got to meet some really great people at that event.

One of the most important functions of the Association is the fostering of networking relationships. We do not do this as a "good old boy" drinking and back room dealing society. We do not do this a self-interest group such as a group of public employees trying to protect their jobs from contracting out pressures or a group of consultants or independent fee appraisers trying to gain exclusive rights to the work that is available.

At last check, Chapter 1 was composed almost equally of public and private sector employees. We have no axe to grind. Networking in the best sense is knowing who the other people in your industry are and who to call for a specific type of information or assistance. It eliminates spending excessive time searching through a large organization