

The New York Environmental Lawyer

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From the Editor

The Environmental Law Section is presently undergoing what I think of as a 20-year review. We've now had two separate Fall meetings celebrating the completion of two decades of existence, accompanied by worthy backward glances, but our Section leaders are enthusiastically examining how to move forward. This entails, in part, a re-structuring of the Section, a close attention to how we perform our mission and a fresh look at how we can better achieve that goal. In furtherance of that effort, the "Committee on Committees" was formed last year and has now met several times to closely examine the committee structure, where many of our ideas and efforts are generated and the bulk of our production occurs. The supra-committee is chaired by Virginia Roberts. A Fall retreat was held in October in the Arden House in the vicinity of Harriman State Park, where several attendees had several opportunities to meet together, identify the issues the Section will likely face, and to brainstorm—or at least to begin the process (note to attendees: I went negative on the SUV). Ginny's article on the retreat will be forthcoming. As a result of the retreat, Phil Dixon, in consultation with several others, has started the process of drafting a Chair manual for purposes of guiding committees and their Chairs in enhancing committee potential. This remains a work in progress, along with proposed revisions to the bylaws, and readers will be kept informed.

In this issue, Kenneth Kamlet submits a comprehensive and thoughtful article on brownfields regulation in New York—where it's been and where he thinks it's going. Here, too, efforts to evaluate the past, but



also move forward, are commendable. Ken represents developers, but also has been on the regulatory side and he even started out with the National Wildlife Federation. I'm sure that this article will generate a lot of discussion. As always, responses to articles are welcomed by the *Journal*. Joseph LaValley submits an article on local land use and its connection with environmental matters. His article, which placed first in the Section's Environmental Essay Competition, analyzes the formation of new municipalities as a means of resolving land use disputes, specifically addressing the Rensselaer County Village of East Nassau, as distinct from the erstwhile unified Town of Nassau. Elizabeth Vail, from St. John's Law School, has again shepherded the student case summaries. In the interim, though, one decision, *South Camden Citizens in Action v. New Jersey Department of Environmental Protection* (145 F. Supp. 2d 505 (D.N.J. 2001)) has been reversed (274 F.3d 771 (3d Cir. 2001)), so a summary of the Circuit Court ruling should be included in the next issue.

Kevin Anthony Reilly

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Brownfields Regulation in New York State: A Disappointing Report Card

By Kenneth S. Kamlet

“Brownfields” are

abandoned, idled, or under-used properties where expansion or redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but also legal and financial burdens on communities. Left vacant, contaminated sites can diminish the property value of surrounding sites and threaten the economic viability of adjoining properties.¹

Brownfield sites generally differ in both degree and kind from other contaminated sites. They differ in degree of contamination because they exclude the most heavily contaminated sites—for example, those on the federal National Priorities List, those subject to RCRA corrective action, those subject to active federal or state enforcement and those classified in New York State’s Registry of inactive hazardous waste disposal sites (pursuant to N.Y. Environmental Conservation Law (ECL) § 27-1305) as “Class 1” (presenting an imminent danger of causing irreversible or irreparable damage to public health or the environment)² or “Class 2” (significant threat to public health or the environment—action required).³ They also include sites (often considered to represent the bulk of “brownfield” sites) that are merely “perceived” to be contaminated—where the stigma or fear of contamination operates to discourage beneficial use or reuse of the property. “The majority of contaminated sites cleaned up under the Voluntary Cleanup Program [do] not present the complexities found at State Superfund sites.”⁴

Brownfield sites also differ in kind from other contaminated sites. Not only do they generally not pose significant risks to public health and the environment, but they tend to be associated with urban decay; tending to be located primarily in older cities, often in economically disadvantaged areas. Ironically, they are both the product of the departure of major industrial employers (i.e., lost jobs result in higher unemployment and reduced productivity) and a cause of a continued decline in property values (i.e., the deteriorated condition of many of these properties reduces the value and desirability of surrounding properties, causing the spread of urban blight).

While the cleanup of more heavily contaminated properties is driven by the need to abate a hazard to public health and the environment, brownfield sites will generally be cleaned up only if incentives are provided to encourage their reuse and redevelopment.⁵ Failure to provide these incentives will primarily hurt the economically disadvantaged and racial minorities who cannot afford to move to the suburbs or chase after higher-paying jobs. It will also hurt the state’s older cities, towns and villages which are already straining to maintain aging infrastructure and more costly community services in the face of a rapidly declining tax base.

If the right incentives are not provided to stimulate the cleanup and reuse of brownfields, it will not hurt the wealthy or land developers. They will simply go to the suburbs or to “greenfield” areas not yet marred by urban decay or pollution. This will require more public resources to be spent on costly infrastructure (new roads, public water and public sewer) and new community services—leaving even less for older urban areas.⁶

The “Brownfields Coalition” in New York⁷ likewise recognized that eliminating the barriers to the cleanup and redevelopment of brownfield sites is important for reasons going beyond eliminating threats to public health and the environment. It acknowledged⁸ the importance of the following additional goals:

- “Preserving the maximum number of greenfield sites in New York State, preventing continued sprawl⁹ and environmental degradation and supporting sustainable development and smart growth for the state’s cities, suburbs and rural areas; [and]
- “Promoting the physical, economic and social revitalization of communities affected by brownfields. . . .”

It took 15 years of experience using the rigid and punitive “strict, joint and several, and retroactive” liability approach of CERCLA¹⁰ and parallel state Superfund laws for it to dawn on government regulators that this was a no-win, counterproductive situation. The Superfund “atomic bomb” approach was preventing rather than stimulating the cleanup of lesser-contaminated brownfield sites and was contributing to the economic decay of cities throughout the country. Owners and operators of such properties were keeping them off the market to avoid calling them to the attention of regulators—so that the risk of being forced to carry out an expensive cleanup would not materialize.

Beginning in 1995, and continuing thereafter, the EPA launched a series of brownfields initiatives designed to stimulate voluntary site clean ups and promote economic revitalization. What had been a trickle of similar state programs (beginning with Minnesota in 1988) became a torrent of state brownfield reforms. By early 1997, there were at least 39 state brownfield programs. Today, virtually every U.S. state and territory has a brownfields program.

Unfortunately, New York State remains one of the small handful of states lacking a statutory voluntary cleanup program for brownfields. Indeed, the New York program is not even grounded in formal regulations or published guidance. Although this unhappy circumstance may be remedied in the near future, there are significant underlying problems with the structure and philosophy of the New York program that show no signs of changing for the better.¹¹

This article will outline and illustrate some of the problems with New York's brownfields/voluntary cleanup program and with pending reform proposals. It will point the way toward some possible improvements. I wrote it from the vantage point of a native New Yorker (CCNY, B.S. 1966) who returned to New York State in 1998 after spending 26 years in the Maryland suburbs of D.C. observing how things are done in the rest of the country.

New York State Background

In 1996, Governor Pataki addressed the Business Council of New York State.¹² He praised reforms that led New York to be ranked for the first time by *Site Selection Magazine* as being "among the top ten sites in the country to locate new industrial sites or expand existing facilities." He boasted of putting state government "on a strict diet of less spending, less regulating, and a lot less taxing." In a brief reference to environmental issues, he affirmed, "We've already proven that economic development and environmental protection go hand in hand." He trumpeted the "good news" that "today, victims of bureaucracy no longer have to tolerate the intolerable" and pledged that "when this government is not acting as it should," let us know "and it will be fixed." "You can count on it. . . ." "Case by case," he said, "we're replacing the slow and cynical attitude of the past with a new attitude that embraces change, rises to new challenges and moves with us on the road to renewal."

In localities across the state, the Governor and his environmental conservation commissioner have endorsed the state's brownfields program as a way of turning abandoned or underused properties "into community assets, creating jobs and revenues for local resi-

dents," and as "providing a successful mechanism for environmental renewal and economic opportunity."¹³

On a statewide basis, the Governor has pressed for legislation to refinance and improve New York's Superfund program, endorsing, among many other points, a recommendation by the 1999 Superfund Working Group that state law should "[f]ocus liability on true polluters and free innocent purchasers from liability, while ensuring that actual polluters are not relieved of any financial or legal responsibilities."¹⁴ Unfortunately, some of the Governor's other proposals may have counterproductive consequences. For example, the Governor has proposed to maintain "the most stringent environmental and public health standards in the nation,"¹⁵ and to apply to the voluntary cleanup program "the same goal as set forth in the State Superfund Program."¹⁶ Establishing "one cleanup objective for the State Superfund Program, Voluntary Cleanup Program, and remediations which do not constitute an immediate response cleanup under the Oil Spill Program" (a unified program approach) is justified as a way to "provide certainty, predictability and consistency among the State's many cleanup programs. . . ."¹⁷ The bill provides that the common "cleanup goal be protection of the public health and environment and, at a minimum, elimination or mitigation of all significant threats to the public health and environment."¹⁸

A cynic might wonder whether the overriding goal of a unified program may not really be "to get more sites cleaned up more quickly with private dollars . . . [which will] reduce the burden on New York taxpayers and businesses for the costs of the state share on cleanups."¹⁹ A better way to reduce costs and create positive cash flows—as the state has recognized in its commendable Empire Zone program—is to incentivize the cleanup and redevelopment of festering brownfield sites so that they start generating meaningful property, sales and income taxes.

A results-oriented cleanup goal, related to health and environmental risk, is clearly preferable to the arbitrary goal of restoring all contaminated sites "to predisposal conditions."²⁰ However, there is cause for concern that, in the interest of "certainty, predictability and consistency," cleanup volunteers who did not cause or contribute to contamination of low-risk brownfield sites will be held (both under the Governor's Superfund reform program and under most of the other reform proposals put forward by other political leaders) to the same procedural and/or substantive standards as recalcitrant polluters responsible for creating high-risk Superfund sites. Indeed, even if brownfield volunteers were ultimately subjected to lesser cleanup obligations (based on lower risks), if they were forced to carry out steadily expanding monitoring for many years to prove

to the satisfaction of DEC and DOH that their site did not present a significant risk, the deterrent effect on volunteers might be similar.²¹

Although I view some elements of the Governor's reform legislation as problematic (while other features are clearly meritorious),²² most of the other Superfund reauthorization proposals (offered by various legislators) raise similar or even more significant concerns.

Under current law (article 27, title 13), DEC has authority to order "responsible parties"²³ to remediate inactive hazardous waste disposal sites that pose a significant threat to the environment. Under proposed reform legislation, cleanup volunteers would be held to the same standards as responsible parties—even at sites that are not inactive waste disposal sites and which do not present a significant threat to the environment. That hardly sounds like focusing liability on true polluters and freeing innocent purchasers from liability. Nor does it sound like a lessening of intolerable bureaucracy or a way to attract new employers to New York State.

New York's Current (Administrative) Voluntary Cleanup Program

Whoever penned the aphorism "no good deed goes unpunished" could have had New York's Voluntary Cleanup Program (VCP) in mind. Indeed, DEC sometimes appears to apply more energy and attention to exacting the last ounce of clean up or monitoring from well-intentioned volunteers than it does to ferreting out and bringing to justice unrepentant polluters.

Although doubtless established with the best of intentions, the VCP has mutated into a bureaucratic quagmire from which, once entered, there is no painless escape. Indeed, sophisticated property owners, developers, environmental professionals and municipal officials in New York State have come to recognize that, for most brownfield sites, it is vastly quicker, easier, less expensive and less risky to proceed (based on the advice of their own environmental professionals) without involving DEC than to try to obtain a liability release under the VCP. There is unfortunately little to suggest that proposed new regulations or legislation will change matters significantly for the better. Indeed, in some important respects, the proposed reforms may make matters worse.

The DEC launched the VCP in October 1994 pursuant to the general grant of authority under ECL § 3-301. Administrative guidance, seen by few outsiders, can be found in Organization and Delegation Memo # 94-32, Policy: Voluntary Cleanup Program.²⁴ The only "published" guidance (undated, but not issued until long after the program was initiated) is contained in a 3-page Division of Environmental Remediation Fact Sheet (Voluntary Cleanup Program Web site, which can

be found at <<http://www.dec.state.ny.us/website/der/vcp/vcps.html>>).

In the early years of the program, written guidance to prospective VCP applicants largely consisted of reprints of a speech by Charles E. Sullivan, Jr., then Chief of the Inactive Hazardous Waste Site Enforcement Bureau of DEC's Division of Environmental Enforcement.²⁵ (Larry Schnapf has aptly referred to this as "rulemaking by speechmaking.") Among other things, this document included the following assertions:

Dealing head-on with developer concern over potentially unlimited remedial liability when involved with contaminated parcels, this program provides a definite end point to the developer's remedial commitment by establishing pre-determined cleanup objectives that, once reached will trigger the Department's provision of qualified past contamination remediation liability releases. (p. 2).

* * *

The volunteer will investigate the site to gather information needed to determine the appropriate cleanup level, which will be a level consistent with the safe use of the property for the purpose to which the volunteer intends the property to be used and the document will identify the cleanup level to be attained or the process to be used to determine that level. . . . As can be seen, then, *risk-based assessments determine cleanup levels* [emphasis added]. However, while the ARAR concept does not automatically drive cleanup levels—as it does under CERCLA, State standards certainly must be accounted for in the risk-based assessment decision-making; how they are accounted for is determined on a site-specific basis. This being said, though, we continue to evaluate how to apply the risk-based assessment methodology to contaminated groundwater situations; at this point it does not appear clear how [it] would apply risk-based determinations any differently than what presently is done for non-volunteer sites, *viz*, groundwater standards are considered, as are the potential for use, discharge to surface water, and the practicability of cleaning up to standards. (p. 5).

* * *

Volunteers who are not PRPs [Potentially Responsible Parties] and volunteers who are PRPs solely by reason of site ownership must remediate on-site contamination to agreed-upon levels and must eliminate sources of onsite contamination that cause offsite impacts. (p. 5).

To aid attorneys in the negotiation of Voluntary Cleanup Agreements (VCAs), the Hazardous Site Remediation Committee of the NYSBA's Environmental Law Section formed a Brownfields Subcommittee to review the agreements issued by DEC and to prepare periodic reports summarizing these agreements and analyzing certain features and trends in these agreements. The first such report was published in *The New York Environmental Lawyer*, Vol. 16, No. 4, pp. 17–28 (Fall 1996). (It covered agreements Nos. 1–31 and 34 issued through September 20, 1996.) The twelfth and final report (covering agreements Nos. 95–97) was published in the Spring/Summer 2000 issue (Vol. 20, No. 2).²⁶

The first report by NYSBA's Brownfields Subcommittee included a useful summary of the "Elements of the Voluntary Cleanup Program," at least as reflected in the first 30-plus VCAs. One observation in this report (p. 19) is worth highlighting. The report states: "For cleanups under the ECL, the DEC has taken the intended site use into account when developing cleanup standards for the voluntary cleanup program, *but it does not appear that the cleanup standards for non-residential uses are any less stringent than for non-residential property cleanups under the traditional ECL program*" [emphasis added]. No mantra is recited more frequently in the context of the VCP than that sites are to be cleaned up consistent with their present and anticipated uses. However, no guiding principle seems to be more casually disregarded. This is unfortunate because use-based (or risk-based) cleanups are the fundamental underpinning of successful voluntary cleanup programs throughout the U.S.

A note by Larry Schnapf in the Fall 2000 issue of *The New York Environmental Lawyer* (Vol. 20, No. 3) announced that the Brownfields Subcommittee would "no longer be reviewing prior VCP agreements" in light of DEC's plans to change "the form VCP agreement to one that does not undergo negotiation." The note also referred to consideration being given by DEC to issuance of "a new informal technical guidance document which would be designed to expedite the investigation and remediation process." As of the beginning of 2002, neither of these guidance documents had been formally promulgated.

Although establishing non-negotiable VCA forms and standard site characterization and remediation procedures can be a good thing—from the standpoint of

reducing transaction costs and enhancing certainty and predictability—it is not an unmixed blessing. An immutable form of agreement suggests a rigid, one-size-fits-all philosophy that may not always make sense and may serve to further inhibit volunteerism. And standardization of procedures, while a convenience for bureaucrats, may smother the ability to expedite sign-offs on low-risk sites. This is in no way meant to downplay the importance of clearly stated, predictable, upfront "rules" that define the procedures by which the "game" will be played and the goals by which the outcome will be evaluated. Certainly, written rules are better than no rules, or rules that are available only to the umpires, but not to the players.²⁷ Unfortunately, DEC has been known to disregard the rules in the past (e.g., as set forth in mutually binding VCAs) and to change the rules in the middle of the game. It is not clear that merely issuing another "playbook" will necessarily improve matters in this regard.

How the DEC Program Departs from Accepted Brownfields/VCP Principles

These principles are based on the established approaches of the U.S. Environmental Protection Agency and the vast majority of U.S. states and territories. Indeed, while many DEC and other New York State officials (as well as various N.Y.S. working groups, task forces and coalitions) may claim to support some or all of these principles in concept, the practical reality has often been very different. Unfortunately, in order for the brownfields/voluntary cleanup program in New York State to accomplish its complementary environmental cleanup and economic development objectives, would-be private sector (and/or municipal) participants must have reason to believe (a) that there is some benefit to participating in the program (as opposed to proceeding on their own or finding a less risky greenfield site), and (b) that in setting rules and procedures, DEC says what it means and means what it says.

1. Program Procedures, Standards and Objectives Must Be Written, Clear, Enforceable and Stable

In New York currently, the voluntary cleanup program has no explicit statutory or regulatory authority. Program objectives have been primarily set forth in speeches and press releases rather than in written guidance. The emphasis and requirements of the program have changed with changes in responsible DEC personnel. The DEC professionals (i.e., in field offices and at the regional level) who primarily deal with cleanup volunteers, have little autonomy to make decisions or provide reliable guidance because they can be (and often are) overruled by headquarters officials. What written guidance that has been developed is often unpublished and withheld from the public.²⁸

What is needed—the voluntary cleanup program must be given specific legislative authorization, backed up by duly promulgated rules, and in accordance with published guidance and procedures. Superfund reform legislation proposed by the Governor and others would give the voluntary cleanup program a statutory basis. (This is good in principle—although an unworkable statutory program is no better than an unworkable administrative one.) If such legislation is not enacted shortly, however, DEC should move forward with the establishment of formal VCP regulations, following notice-and-comment rule-making.

2. The Program Must Provide Certainty and Predictability

Currently, the only certain and predictable feature of the DEC program is its *lack* of certainty and predictability. Voluntary cleanup agreements will often establish performance objectives (e.g., removal of contamination sources, avoidance of adverse impacts on human health or the environment). However, DEC will typically require extensive monitoring—to verify that sources have been removed, then to ensure that trends are in the right direction, then to answer questions about how quickly levels will decline, and finally just for the sake of operation and maintenance. If levels in soil, groundwater or indoor (or outdoor) air are considered “too high” at any stage by anyone in the decision-making framework, engineering controls may be required—even if natural attenuation would quickly yield the same result. (Even if presumptive remedies are implemented early on, this will usually not be viewed as reducing the need for extensive investigation or continued monitoring.) If groundwater is contaminated, monitoring and cleanup requirements are likely to be extensive and protracted. This is true regardless of whether nearby groundwater is used as a drinking water source, and even if nearby drinking water supplies are shown not to be threatened. It is especially true if the groundwater contaminants are known or suspected carcinogens (even if the actual cancer risk is vanishingly small).²⁹

What is needed—upfront certainty and predictability (while permitting appropriate site-specific flexibility). Cleanup volunteers must be able to rely on the immutability and inviolability of the obligations set forth in the Voluntary Cleanup Agreement they signed onto.

The Governor’s Superfund reform bill proposes to provide predictability by providing “one cleanup objective” (i.e., a very stringent one) for the State Superfund Program, the Voluntary Cleanup Program and certain Oil Spill cleanups. While this may provide “certainty, predictability and consistency” among all of the state’s cleanup programs, it is likely to eliminate any incentive for a volunteer to step forward. Unless the site is very

valuable, a prospective purchaser or developer will simply go to another site that won’t require a costly DEC cleanup, while existing site owners or operators who may be forced to clean up if DEC gets on their trail will be tempted to “hide in the weeds” and hope that DEC will never get around to them. Trying to force consistency among very different cleanup programs will be counterproductive. What is needed are fast-track procedures for low-risk brownfield sites and more deliberative requirements for higher-risk sites. Instead of requiring all residents to wear size 9 shoes for the sake of uniformity (assuming the state played a role in regulating shoes, which it doesn’t), it would be better to ensure that shoe sizes have a consistent meaning from one part of the state to another and that resources are not being misallocated by making shoes larger than they need to be. (I apologize for the shoe metaphor, but if the shoe fits. . .)

3. The Voluntary Cleanup Program Needs to Have Cleanup Standards³⁰ That Are Risk-Based, if Volunteers Are to Have an Incentive to Participate

If a volunteer at a low-risk brownfield site is forced to clean the site up to pre-disposal pristine conditions, or if a volunteer who wants to use the site for a factory must clean it up to the same standards as a playground or nursing home, fewer and fewer volunteers will come forward.

What is needed—the cleanup remedy must be geared, both in concept and in reality, to current, intended and reasonably anticipated future land uses at the site. Adjacent property uses should also be taken into account, but only where there is a plausible risk that such properties may be significantly impacted (e.g., are in the down-gradient path of a rapidly moving contaminant plume). Merely *saying* that the remedy is geared to present and future land uses does no good if the same stringent procedures and cleanup standards end up being applied in practice without regard to the land use.

4. The Program Must Not Treat Volunteer, Non-Contributory Owners and Prospective Purchasers and Developers the Same as Culpable Responsible Parties

The DEC has great leverage over responsible parties at Class 2 inactive hazardous waste (state Superfund) sites, especially if they directly contributed to the contamination. If such PRPs do not cooperate, DEC can take enforcement action against them. (Legislative reforms, such as those advocated by the Governor to enhance DEC’s power to issue administrative orders and pursue treble damage penalties against recalcitrant PRPs, are—if appropriately structured—necessary, reasonable and even desirable.)

Although DEC may also find itself with great leverage over non-contributory cleanup volunteers, it is critical that DEC resist the temptation to treat the innocent volunteer as either an evildoer deserving of punishment, or as a deep pocket ripe for the plucking. Volunteers, who often have no existing connection to the brownfield site in question, typically come forward because they'd like to do something with the site that may be beneficial both to them and the community, but are concerned about real or perceived contamination (usually of unknown severity). If they can obtain assurances from DEC that they are not opening themselves up to never-ending cleanup liability, they may be willing to embark upon a voluntary cleanup—if the rules are explained clearly, upfront; if the process has a clear beginning and end; and if closure can be achieved relatively expeditiously. Nothing could be more destructive to the volunteer's willingness to participate than to be treated like the enemy by DEC.

If cleanup volunteers are treated like polluters—for the sake of consistency, or otherwise—the supply of volunteers will quickly dry up. There are alarming signs that this is already occurring. (*According to DEC data,³¹ 12 VCP investigations and 14 remediations were completed between March 31, 1998, and March 31, 1999, but those numbers dropped to 6 investigations and 9 remediations during the following fiscal year, and to only 2 investigations and 4 remediations during the fiscal year ending March 31, 2001. This rapid downward trend should signal decision makers that "something is rotten in the State of Denmark."*) Since innocent volunteers cannot be forced to volunteer or to stay in the program through the threat of enforcement, ill-treatment of volunteers will either force volunteers to gravitate to less risky sites (generally further removed from the urban core), or induce them to rehabilitate sites on their own without involving DEC.

The former outcome is undesirable in the long run from the standpoint of both environmental management and socioeconomics. The latter outcome is probably the most sensible in most cases (given the realities of the DEC program), but could be risky to the volunteer if a serious environmental problem was present but was not detected.

A capital punishment metaphor may be appropriate in this context. It is better for society that the system allows 1 guilty person out of 100 to go free, than it is to have a system that is willing to execute 1 innocent person out of 100 in order to ensure that no guilty person goes unpunished. In the voluntary cleanup program context, a program that gives volunteers the benefit of the doubt and facilitates accelerated cleanups will clean up many more sites, more quickly, than a program entwined in red tape that suspects everyone and scrutinizes every detail for fear of allowing an unclean site to

be redeveloped. In fact, the latter type of program may succeed only in losing all its volunteers and in cleaning up nothing.

What is needed—an approach that recognizes and acknowledges the crucial differences between volunteers and responsible parties, and between brownfields and Superfund Sites; one that does not blindly worship consistency or exalt means over ends. In my humble opinion, this is the biggest problem with most of the so-called reform proposals. True, the overriding objective in all cases is to protect human health and the environment. However, the *means* by which that objective is achieved must vary with the circumstances of each case (or, at least, each broad category of cases).

Instead of abusing cleanup volunteers, DEC should be helping them—for example, (ideally) by conducting or paying for initial site characterization (to remove uncertainty and fear of open-ended liability) and then holding the volunteers harmless for all pre-existing contamination.

5. The Program Must Provide a Broad Liability Release in Return for a Voluntary Cleanup

As many of the reform proposals would do, any liability release received for a voluntary cleanup should be binding on the state as a whole and not just on DEC. (If this reform is to be of any benefit, the *quid pro quo* cannot be still more onerous cleanup demands before state signoff will be provided.) Broad releases should be available not only for extensive cleanups, but for low risks. Just because the desired release is broad (or the volunteer's pockets are deep) is no reason to demand a more extensive or protracted cleanup than is warranted and required by the site-specific risk. Indeed, even if the site-specific risk is significant due to ubiquitous contamination of nearby properties, or to other factors not caused or contributed to by the cleanup volunteer, liability releases should be freely issued—as long as present and proposed site users can be protected.

What is needed—an approach that resists the need to punish the innocent just because contamination may be present. If more cleanup is needed than it is fair to impose on the volunteer, DEC (i.e., the taxpayer) should pay for it—if those responsible for the problem cannot be made to pay. (If DEC foots the bill, cost-recovery should be pursued against those responsible—plus a sizable penalty if the responsible parties are uncooperative and recalcitrant.) Volunteers must be given the incentive to come forward with the prospect of a broad release from liability in return for their volunteerism. Only fraud or newly discovered hazards (to the extent of such hazards) should generally be the basis for reopeners.

6. The Program Must Provide an Accelerated Process for Meeting Voluntary Cleanup Commitments

Just as “justice delayed is justice denied,” real estate deals that must be put on hold until a sluggish bureaucracy uses up all its red tape are deals that won’t go forward and will seldom be repeated. They are truly lost opportunities.

What is needed—a lean and mean program that rewards decisiveness, creativity and speed over consistency, timidity and bureaucracy. A program that creates a clear path to “Yes!”—not a maze in which all paths lead to “No!”

7. Financial Incentives Should Be Made Available to Private as Well as Local Government Volunteers to Encourage Voluntary Cleanups

Taxpayers’ money should be husbanded and expended wisely and sparingly. However, the use of public funds to rehabilitate brownfield sites and promote their reuse should be viewed, not as a cost, but as an investment that enriches the tax base. Bond Act funding for municipally owned brownfields is viewed in this light—much to the state’s credit. (Proposed reform legislation to enhance the attractiveness of such funding, while further limiting liability for municipally owned sites, is a good step or two in the right direction.)

The state needs to recognize that the same logic would apply to providing financial incentives to *privately* owned brownfield sites. Indeed, the state *does* recognize this in the context of Empire Zones (which are often dominated by brownfield sites). Unfortunately, in the voluntary cleanup program context (where one is dealing with privately-owned brownfield sites), the state’s emphasis seems to be on (1) getting volunteers to reimburse the state’s oversight and administration costs; and (2) getting volunteers to spend as much private money as possible on cleanups, so that the possibility that public funds will ever need to be expended is minimized. That is penny-wise and pound-foolish. And it sets up externalities under which cost-effectiveness only matters to DEC as long as it is public money being saved. (It is like a cash-strapped student who would rather charge \$50 to Dad’s credit card on a day’s worth of restaurant food than spend her last \$10 bill on several days’ worth of groceries.)

Even worse, it creates a counterproductive risk-aversiveness that promotes more investigation and cleanup than necessary, and a more protracted process than desirable—all in an effort to stretch scarce program dollars and avoid unbudgeted program expenditures as much as possible. If the same philosophy had been applied in the early days of this country, the pioneer

colonists would have never made it west of West Virginia.

It is true that public funds should not be casually distributed to a private profit-making enterprise without provision for profit sharing, or at least for a return of the initial public investment. There are a host of such mechanisms in place in jurisdictions throughout the country (and, indeed, even in New York State). Examples are Tax Increment Financing (where a local government or taxing authority helps fund a brownfields cleanup or redevelopment project by floating bonds which are eventually repaid by the increased tax revenues that result from the new development)³² and Revolving Loan Funds (which provide bridge financing to move a project forward; when the successful project repays its loan, new financing is available to fund the next project).

What is needed—an attitude change on the part of state regulators (and legislators), that begins to recognize that the *more attractive* the voluntary cleanup program is made to prospective volunteers, the more the state and state taxpayers will benefit. It is not “us” versus “them.” “They” *is* “us.” (Nobody benefits from a bureaucratic program that lumbers forward slowly and cautiously to avoid making mistakes, but which does nothing to inspire or attract the volunteers who are the “engine” that must drive this “machine” forward.)

If the VCP were revamped so that each element was scrutinized from the standpoint of “will this make the program more or less attractive to cleanup volunteers?,” the result would be a vastly better program. More volunteers would participate. More decaying sites would be rehabilitated. More neighborhoods would be revitalized. And, yes, more contamination would be cleaned up.

8. The Program Should Afford Reasonable Opportunities for Review and Comment by Interested and Affected Members of the Public, But the Degree of Public Participation Should Be Commensurate With the Degree of Risk Realistically Presented

Programs that try to please everyone end up pleasing no one. There is no such thing as “zero risk.” And voluntary cleanups, brownfields and acceptable risks for scary-sounding chemicals are likely to be complex and mysterious concepts for most people. However, the reason we pay government regulators the “big bucks” is to have them make some difficult decisions on our behalf and, in other cases (where the risks to the public are significant and public concern is strong) to help explain the risks and give the public an opportunity to get their questions answered and to give voice to their fears and concerns.

Public participation is basic to our democratic process. But that doesn't mean that all decisions must be made by a consensus of the public. Ours is a representative democracy. We must rely on our elected and appointed public officials to safeguard our interests.

In the case of most brownfield/voluntary cleanup program sites, a notice in the *Environmental Notice Bulletin* of the proposed finalization of a Voluntary Cleanup Agreement, with an opportunity for public comment, is appropriate and sufficient. In higher-risk situations, where public concern is more pronounced, more elaborate procedures for both notice and comment are appropriate. In some cases (e.g., where volunteer experts are not available from a local university), taxpayer-funded technical assistance grants may be necessary and appropriate to allow concerned residents to come to grips with the issues and alternatives. This is most often justified where federal or state Superfund sites are involved.

What is needed—there does not appear to be a problem currently in most cases. What needs to be guarded against is either too little opportunity for public involvement at one extreme (where there is significant risk and a real basis for concern), or too much participation which merely adds to red tape and delay at the other extreme (where there is a low-risk site and a need to move quickly).

9. A Separate Voluntary Cleanup Program Coordinator Should Be Designated Under the Deputy Commissioner for Water Quality and Environmental Remediation, but Outside the Division of Environmental Remediation

The alarming slide in recent years in the number of completed voluntary cleanup program investigations and remediations suggests that there is something seriously wrong with the program that requires immediate attention. The fact that there has not yet been a parallel drop in new VCP agreements should be small comfort. Is it likely that new volunteers will continue to come forward to enter the VCP program, if it takes longer and longer to complete the work called for by DEC and to receive DEC signoffs?

I believe that a big part of the problem is that VCP requirements have been getting more and more onerous and have become more and more difficult to differentiate from those of DEC's more heavy-duty remediation programs. A major thrust of the Governor's (and others') reform proposals would be to formalize and accelerate this trend (in the name of consistency). This would be a serious mistake, in my opinion.

What is needed—the Voluntary Cleanup and brownfield programs need to be removed from the Division of Environmental Remediation and placed under a brownfields "czar" (still reporting to the Deputy Com-

missioner for Water Quality and Environmental Remediation) whose primary mission is to clean up and redevelop underutilized brownfield sites—rather than to look for more "handcuffs" and "leg irons" to borrow from the Superfund and Oil Spill programs administered by the Division of Environmental Remediation. (This is not intended as a personal criticism of any DEC official or employee.)

10. Even Within the Voluntary Cleanup Program, Statewide Consistency Should Not Be Viewed as an End in Itself, Where There Are Plausible Reasons for Site-Specific or Region-Specific Variability

One cannot fault the underlying principles that (a) all contaminated sites should be regulated consistent with protecting public health and the environment, and (b) the polluter should pay. However, applying these principles to different types of sites requires different tools and procedures.

Just as it is *not* appropriate to apply to low-risk brownfield sites being cleaned up by innocent volunteers the same stringent and punitive procedures and standards that are needed and justified at high-risk Superfund sites where responsible parties refuse to cooperate, it does not make sense to apply a one-size-fits-all approach to all brownfield sites—regardless of site-specific or geographic differences.

Not only will the extent of contamination and potential for off-site exposure vary from site to site, but so will such factors as the cost-effectiveness of a full cleanup (e.g., in light of the value of the cleaned-up property and the contemplated site use); the financial viability and accessibility of those who caused or contributed to the contamination; the willingness and ability of the would-be cleanup volunteer to expend the time, effort and resources necessary to accomplish a full cleanup; the logistics of the business deal (e.g., is there a narrow time window within which the transaction must be completed?); and the importance ascribed by the local community to redeveloping the particular site (in relation to plans for the surrounding area).

It is dangerous and wrong for Albany to try to dictate to field staff how every brownfield site in the state must be handled in every conceivable circumstance. It is even more wrong-headed to apply a lowest-common-denominator approach by which every site is regulated as though it were the worst site. Yet this is the inevitable impact, stripped of its rhetorical camouflage, of attempting to impose statewide consistency.

What is needed—more flexible guidance from Albany and more autonomy for field staff to make appropriate site-specific judgments.

Counter-Productive Internal Procedures

DEC's unpublished "Voluntary Cleanup Program Internal Procedures" (the "Procedures") were most recently revised on November 30, 1999. (The precipitous decline in VCP completions dates to about the same time frame.) I don't know when the Procedures were first established, except that it was well after the initiation of the Voluntary Cleanup Program in 1994.

A primary focus of the Procedures appears to be "to promote statewide consistency in the program." (p. 1.) To this end, elaborate procedural steps and paper-trail requirements are established to ensure that the project manager coordinates with the regional project attorney, the regional engineer and "all other regulatory programs in the Region (e.g., Air, Water, Solid and Hazardous Materials, Fish and Wildlife)" before a given cleanup volunteer and site are considered eligible to participate in the program. Before the draft VCA can be approved, consistency reviews must also be conducted by the project attorney's supervisor, by the central office legal coordinator, by the central office voluntary cleanup program coordinator (to verify that the technical requirements of both the agreement and the work plans are consistent with similar projects across the state), and by the project manager's supervisor. In addition, the Procedures require "written concurrence" from the state Department of Health at every significant stage of the process: before the draft VCA is approved; on remediation work plans; and prior to final sign-off on Investigation and/or Remediation approvals.

The unconditional requirement of *written DOH concurrence* is objectionable for multiple reasons:

- (1) Not being a party to VCAs, DOH does not consider itself bound by the terms and conditions of the Agreements. Thus, cleanup volunteers, having entered into a good faith agreement with DEC with finite obligations, may find themselves suddenly subject to new, unbargained-for requirements as the price of DOH concurrence.
- (2) Although VCAs typically require DEC to respond to submittals within a set period of time and to provide reasons where a submittal is not accepted, no such constraint limits DOH. DOH can take as long as it wants and/or be as arbitrary as it wants, knowing that no approval can be given without its written concurrence.
- (3) If DOH got involved on its own with a voluntary cleanup program site, its authority would be limited to that conferred by the state legislature under the Public Health Law. That authority would be nil for a site not even classified as an inactive hazardous waste disposal site. (Under PHL § 1389-b, DOH is given certain authority to respond to "a condition dangerous to life or

health resulting from an inactive hazardous waste disposal site.") However, by virtue of the power conferred by DEC for it to withhold its concurrence, DOH need not worry about such technicalities. I am waiting for someone to explain how DEC can confer on DOH more power to act *indirectly* than the state legislature has given DOH to act *directly*.

Since the DEC Procedures are internal mandates from DEC higher-ups with the power to reward and punish subordinate officials, the requirement of numerous *signoffs by multiple levels of DEC's own bureaucracy* can also be a way of inducing lower-echelon employees to succumb to "suggestions" that lack technical merit or legal authority, and to bludgeon battle-weary volunteers to agree to "one or two more requirements" (beyond the last departure from what was agreed to in the VCA) as a way of shaking loose a needed DEC approval. This is in the highest tradition of car dealerships that require a "manager" to sign off on deals negotiated by a salesman before they become final.

Moreover, the very premise of *statewide consistency* is faulty—or at least untested by the rigors of a public rule-making proceeding. It is far from self-evident that a cleanup remedy which can be justified as cost-effective in Scarsdale, where land may be worth \$5 million an acre, or on Long Island where groundwater is used extensively as a drinking water source (and land is also expensive), should be applied for the sake of consistency to such places as Binghamton or Utica, where neither land values nor groundwater dependency provide comparable imperatives.

The Procedures also require remediation agreements to "include requirements for *appropriate engineering and/or institutional controls* (e.g., deed restrictions) that may be deemed necessary to allow for the contemplated use of the site. . . ." This seems like overkill, especially where the same stringent remedy is commonly imposed on non-residential land uses as would be applied if a residential use were contemplated. Deed restrictions (especially where not justified from an exposure assessment standpoint) may be enough to quash a commercial real estate deal, where the buyer is not willing to purchase encumbered land. Deed restrictions and other institutional controls have a legitimate role in a properly designed and functioning program.

Some states have established by statute that brownfields (or VCP) cleanups must be approved by "licensed environmental professionals."³³ Very few, if any, are restrictive to the point of requiring *sign off by a registered professional engineer*. Yet, the Procedures impose this requirement (p. 4). Not only is there no statutory foundation for rejecting the findings and results of environmental professionals who are not registered P.E.s, but this requirement goes beyond the obligations contained

in most, if not all, voluntary cleanup agreements.³⁴ The requirement is therefore not only arbitrary and *ultra vires*, but *ex post facto*.

The Procedures inexplicably (p. 10) specify that projects completed under an *investigation-only agreement* cannot receive an *assignable release* from DEC “even if the Department concludes that no remediation is necessary.” (Instead, they must content themselves with a “Satisfactory Completion” letter from the project manager.) By contrast, when work is done under a combination investigation-remediation agreement but the investigation shows that no remediation is necessary, the volunteer *is* eligible for an assignable release and covenant not to sue issued by the Central Office Legal Coordinator. Quibbling about these distinctions may be more an exercise in sophistry than of practical import, since it is hard to envision DEC under the present program *ever* concluding that no remediation is necessary.

Finally, not only must the cleanup volunteer obtain an engineering certification he didn’t bargain for, but that certification must address the seven *remedy selection factors* given in 6 NYCRR 375-1.10(c).” The problem is that these factors were intended to apply only to state and federal Superfund sites. They include conformity with New York State Standards, Criteria and Guidelines (SCGs, which are similar to federal ARARs)³⁵—which as already discussed are extraordinarily stringent in New York State. (Not only would the Governor’s Superfund Reform Legislation give this requirement the force of law for all of the state’s contaminated sites programs, even for non-registry sites, but it would add two additional—albeit not necessarily objectionable—factors that would have to be considered. One of these is current, future or reasonable anticipated land uses of a site and surrounding properties. The other creates a presumption that any soil contamination will be cleaned up to residential levels at certain Class 1 or Class 2 sites.)³⁶

A Not-So-Hypothetical Case Study

The concerns raised throughout this article are real and growing worse. Brownfield seminars across New York State have become somber events that have increasingly devolved into forums for exchanging horror stories and venting frustrations. There is no sign of the pumped-up public and private sector professionals who, in other parts of the country, reinvigorate themselves by working together to convert blighted brownfields into productive and non-polluting landmarks to teamwork and progress. The mood here is dramatically different from that in other jurisdictions—where federal and state brownfield officials and practitioners are full of energy and enthusiasm because they feel that they are doing something meaningful and socially beneficial.

I won’t try to explain (because I can’t) the political and social dynamics that have led the New York brownfields program to go so horribly awry and that continue to take it two steps back for every forward step. However, I will attempt to give the New York Brownfields and Voluntary Cleanup Program enough concreteness, through a case study, to allow the reality of the problem to seep through. Hopefully, it will make the path to a solution clearer as well.

The problem with the voluntary cleanup program is all of the things the reform-minded Governor Pataki enumerated several years ago—and promised to root out of New York State (except where anyone thought it might compromise public health or the environment): too much regulating, intolerable bureaucracy, slow cynical attitudes of the past, government not acting as it should, etc., etc. The solution, as so many other states have learned, is a more streamlined and accelerated cleanup program, where volunteerism is rewarded not penalized, where the goal is incremental improvement not unerring perfection, and where government leaders strive to empower their subordinates to do good and achieve results rather than placing them on leashes and enshrouding them in red tape to avoid the possibility of error or criticism.

The following case study is true, and the essential details have been preserved without embellishment or distortion. Names have been changed and details have been obscured—hopefully enough to avoid retaliation. The issues are serious, but the tone is light-hearted with an occasional dose of good-natured sarcasm (Jonathan Swift was always easier to read than Richard Nixon).

In 1995, three successful businessmen (who were also brothers) considered buying an expensive (by local standards) 10-acre piece of developed commercial property (“the Site”) on the outskirts of a medium-sized city in upstate New York. The three brothers—named Placido, Luciano and Jose—called their real estate business “PLJ Realty, LLC” (PLJ). The Site, known as “Dilapidated Plaza,” contained a deteriorating, partially vacant, 65,000-square foot strip shopping center building. The building was rectangular, with the front of its longer face directed across a large parking lot toward a north-south State Road (SR 666). Along Route 666, which connects to the Interstate about a quarter of a mile to the north and carries commuters to the nearby city to the south, were other shopping centers, used car lots, fast food restaurants, individual stores, offices, banks and motels.

Behind Dilapidated Plaza to the east was a fast-moving, interstate stream, the Swanee River. To the south was a creek of more modest and variable dimensions, known as Fortress Creek. Fortress Creek, while

usually carrying limited but ample volumes of water into the Swanee River, would go through periodic cycles of raging intensity after heavy rains and snowmelts. Along Quandary Road to the north, and overlooking the Plaza from a ridge, were a handful of single-family homes, the nearest of which approached within 100 to 150 feet of the shopping center building. No playgrounds, nurseries, old age homes, hospitals, elementary schools or sanitariums were present within at least a mile radius in any direction.

The site had been a farm until 1944. Dilapidated Plaza was built in 1962 or 1963 following a period of occupation by a number of homes and small businesses. Agent Orange herbicide and PCB capacitors—or other heavy duty and long-lived industrial toxicants—were never manufactured or disposed of on the site. Unfortunately, as would become apparent, a far more insidious environmental hazard was present: a succession of dry-cleaning stores had occupied a few thousand square feet in the central area of the shopping plaza building between the early 1960s and the late 1990s. Until 1989, when the shopping center was connected to a municipal sanitary sewer, sanitary wastes and other effluents from the center were discharged (with DEC approval under SPDES permits) into three generations of septic systems, including tanks and leach fields, in the eastern part of the site (between the building and the River).

The U.S. Geological Survey, in a 1982 report, identified the direction of groundwater flow at the site as being to the south and east. PLJ's environmental consultant, Impeccable Environmental Experts, Inc. (IEE), confirmed this result in 1998, after extensive monitoring of water table levels showing that the flow gradient was to the southeast, toward the confluence of Fortress Creek and the Swanee River.

PLJ wasn't exactly sure what it would do with Dilapidated Plaza, which was not in the best condition and had a number of vacancies, but since it owned another shopping center nearby, it figured it could more easily manage the Plaza than its current absentee owners, Deadwood Realty Corp. If PLJ could keep the Plaza fairly well-tenanted, the investment hopefully would hold its own. And, who knew, perhaps the real estate would be worth enough in the future to allow PLJ to resell it and make a modest profit.

So, PLJ entered into a Purchase and Sale Agreement with Deadwood in mid-1995, contingent on the results of various environmental and geotechnical investigations. PLJ retained IEE to perform an Environmental Site Assessment. A Phase I ESA was completed in February 1996. This report flagged as a Recognized Environmental Condition the presence of Ralph's Cleaners, which currently used and stored the common dry-cleaning solvent, perchloroethene (PERC),³⁷ also known as tetra-

chloroethene or tetrachloroethylene, at the site. It noted that other dry cleaners/laundries had previously occupied the site, that Dilapidated Plaza formerly held a SPDES permit to discharge waste to an on-site septic system, and that dry cleaning solvents may have been discharged to the septic system.

Included as an attachment to the Phase I report was a September 1995 letter from a groundwater management specialist on the staff of the local Old County Health Department. The letter indicated that the surrounding area had been served by public water utilities dating back several decades, but that there were still some commercial, institutional and industrial facilities that maintained dual water supply systems. In such cases, while potable water usually came from the municipal system, on-site wells might supply process or air conditioning water. The letter commented, citing the 1982 USGS study, that "the site lies within the calculated cone of depression formed by the North Forty Municipal well, the closest active public water supply"—located about 1,100 feet to the southwest of the Site (south of Fortress Creek). The letter described the Site as being within the boundaries of a Sole-Source Aquifer (meaning that development might be subject to review by the EPA if federal dollars were involved—which they weren't), within the limits of "a NYSDEC-designated primary aquifer," and as being subject to strict regulation of chemical storage practices under the town of North Fork's aquifer protection ordinance.

Based on the results of the Phase I ESA, PLJ asked IEE to conduct a limited Phase II study. Six of seven attempted probe holes were successfully advanced to groundwater. Five (P-1, and P-4 through P-7, at groundwater depths of approximately 12 feet below grade) were placed within the area of former leach fields. The sixth (P-2, at groundwater depth of about 17 feet below grade) was placed behind the building unit occupied by Ralph's Dry Cleaners. High part-per-billion concentrations of PERC were found in the probe holes behind the Dry Cleaners (356 ug/l at P-2) and in the leach field immediately down gradient of the Dry Cleaners (49.9 ug/l at P-1). Low (1 to 3.1 ug/l) or undetectable levels of PERC were found in the other probe holes.

When these results were submitted to Sam Suave of DEC (local field office) on March 8, 1996, he suggested that PLJ consider entering into the Voluntary Cleanup Program, which "would eliminate exposure to potential future open-ended cleanup costs, set pre-determined cleanup objectives and give assurance to financial institutions regarding their own lack of liability." Since PLJ would be considered a non-PRP (given its prospective purchaser status), it would be responsible only for remediating on-site contamination to pre-determined levels and eliminating sources of on-site contamination that could cause off-site impacts.

Also at Mr. Suave's suggestion, and in an attempt to further identify the extent of contamination associated with the dry cleaning operations, the scope of the limited Phase II was expanded to include locating and sampling two septic tanks depicted on a 1985 site survey plan.

Liquid from 5,000-gallon Septic Tank #1 was found to contain trace levels (below 5 ug/l) of three volatile organic compounds (VOCs), but sludge from this tank contained part-per-million levels of two PERC degradation products (cis-1, 2-Dichloroethene at 44,400 ug/l and vinyl chloride at 2,780 ug/l). Septic Tank #2 (2,500-gals) and an accompanying concrete siphon chamber were located. The tank contained no liquid and only about 2 inches of sediment, had no staining along its inside walls and appeared never to have been used. It was therefore not sampled.

IEE surmised that chlorinated residues in other septic tanks "are . . . likely to be limited in quantity and localized in their distribution with one exception." That exception was a possible PERC-containing septic tank located between the building and Septic Tank #1. (Such a tank would later be identified and referred to as Septic Tank #3.)

In a March 1996 letter to PLJ, IEE explained to its client the potential financial implications if PLJ decided to complete the purchase of Dilapidated Plaza. It was estimated that disposing of the septic tanks and their contents would cost in the range of \$16,000 (if deemed non-hazardous—as was considered likely). IEE was confident that the septic tank contents would not be considered a "listed" hazardous waste under 6 N.Y.C.R.R. Part 371. (However, limited amounts of stockpiled soils associated with the excavation of Septic Tank #3 had to be disposed of as "characteristic" hazardous waste because leachable PERC exceeded TCLP regulatory limits by an order of magnitude.) IEE also noted that, because elevated concentrations of chlorinated solvents had been detected in the Site's groundwater—at levels in excess of DEC's 5 ug/l regulatory limit for groundwater used as a drinking water source,³⁸ it was possible that DEC might classify it as an inactive hazardous waste site.

Although neither of the worst-case scenarios envisioned in 1996 ever materialized, the ever-escalating demands of DEC, spurred ever upward by DOH, would soon result in a staggering increase in PLJ's costs. (Not including construction-related costs or attorney's fees, investigation and remediation costs arising out of the Dilapidated Plaza VCA will total close to a-quarter-of-a-million dollars—a sum more than 1,400% higher than originally anticipated by PLJ and its consultants.)

Around mid-March, PLJ decided to bring in an outside environmental attorney knowledgeable in brown-fields matters, Ken Cavalier, to advise it on environmen-

tal legal matters and negotiate a voluntary cleanup agreement with DEC, if that seemed appropriate. And by the way, PLJ advised their new attorney that the closing was scheduled for April 1st (April Fool's Day seemed a fitting—albeit rapidly approaching—date). This date was later extended somewhat in conjunction with the bankruptcy proceedings in which Deadwood Realty was now involved.

Mr. Cavalier contacted Mr. Suave and was assured that this Site was "a good candidate for a VCP agreement." He was told there were two key things DEC required. First, the volunteer must clean up any source that is causing an off-site impact. (There was no evidence, and it seemed little possibility, of such an impact—provided it could be shown that the North Forks municipal well was not being impacted.) And, second, the cleanup volunteer would need to clean up the site for whatever its intended purpose was. He saw "no indoor air problem," and viewed the required cleanup as consisting primarily of "pumping out the septic tanks" and maybe putting in some "passive vent tubes." It would also be necessary to confirm that the current dry cleaners was on the municipal sewer system (it was) and to dye-test the floor drain, if any (there were two—both connected to the municipal sewer). A potential Work Plan would need to be prepared to incorporate in the Agreement. He said he felt "real comfortable with the technical end of this" and encouraged Mr. Cavalier to contact DEC's regional attorney, Thomas Truehart in Lakota, NY, and DEC's "head attorney" in Albany, Chauncey O'Shaughnessy. Mr. Suave indicated that an Agreement could probably be concluded in about 60 days—allowing 30 days to negotiate it and another 30 days for public comment.

After filling out and submitting a VCA application form and conducting initial conversations, attorneys Cavalier and Truehart were able to negotiate a mutually satisfactory Agreement in about 15 days. This Agreement was signed by brother Luciano of PLJ on April 29, 1996 (or thereabouts). Mr. Suave hand-carried it to Albany where it was signed a day or two later by DEC Commissioner Gepetto. Notice of the Agreement was published in the *Environmental Notice Bulletin* and public comments were solicited through June 8, 1996. As of June 21st, no comments had been received.

[Author's aside: Under new VCA procedures expected to be promulgated by DEC in early 2002, voluntary cleanup agreements will no longer be negotiable, but will be available only on a take-it or leave-it basis. Also, since at least 1999, under DEC's unpublished internal procedures, a VCA applicant might not even be notified of its eligibility to participate in the program for up to 45 days after submitting an application. Although the time required to negotiate an agreement would be cut to zero once the take-it or leave-it form of agreement

is adopted by DEC, it will still be necessary to develop a Work Plan to incorporate in the agreement. Separate Work Plans may be needed for VCAs that include both Investigation and Remediation. By the time internal and external “consistency reviews” are completed to ensure that no stray thoughts or unauthorized ideas are allowed to intrude—but at the same time allowing senior officials to insert their own favorite research topics—any time savings gained by eliminating frivolous input from the cleanup volunteer will have been more than offset by the surfeit of wisdom elicited from a long list of clever DEC and DOH bureaucrats, scientists and philosophers. The Governor’s reform legislation proposes to allow 60 days for DEC to review the applicant’s eligibility and to require DEC to make a “best effort” to review the proposed Agreement within 60 days.]

The 1996 VCA for Dilapidated Plaza was fairly typical of the several dozen VCAs finalized during the first few years of the Voluntary Cleanup Program. It set forth as one of its goals, to “release the Volunteer and its successors and assigns, under the conditions set forth in [the] Agreement, from any and all claims, actions, suits, and proceedings . . . by the Department . . . , which may arise under any applicable law as a result of the Existing Contamination.” Notwithstanding the presence of this Existing Contamination, DEC determined that the response action agreed upon under the VCA “will be in compliance with the ECL and will not . . . expose the public health or the environment to a significantly increased threat of harm or damage.”

The VCA expressly contemplated that PLJ “intend[ed] to purchase the Dilapidated Plaza, including the Site and implement a two-phased cleanup (“Response Program”), in preparation for and in conjunction with the renovation (and possible demolition) of the existing structures on the property for continued commercial use.” The Department-Approved Work Plan (set forth as Exhibit B to the VCA) called for two phases of response action. “Phase I,” consisting of locating and removing contaminated soils and structures behind the shopping plaza building, was to begin immediately. “Phase II” was to come into play “[i]f the laundry/dry cleaning building is to be demolished. . . .” It was to include appropriate disposition of in-building tanks and piping and of underground structures not readily accessible while the building was in place. (These work plan “phases” are referred to herein in quote marks to clearly differentiate them from Phase I and II Environmental Site Assessments or stages of construction or development.)

Once DEC was satisfied that the Response Program was completed in compliance with the Work Plan and Department-approved design, it was *required* to provide [“shall provide”]

Volunteer (for each Phase of the Response Program, upon its completion) with a separate written “*clean site notification*” letter that is attached to this Agreement and incorporated in this Agreement as Exhibit “C” agreeing . . . to release, covenant not to sue, and forbear from bringing any action, proceeding, or suit against the current or future owners of the Site or any person having any interest in the Site, including Volunteer, for the further investigation and remediation of the Site based upon the release or threatened release of any Existing Contamination.

The Agreement specifically reserved DEC’s right to pursue legal action against “parties that were responsible under law before the effective date of this Agreement to address the Existing Contamination.”

DEC was given the authority to revise the agreed-upon Exhibit B Work Plan in two (and only two) circumstances. The first circumstance was if, during the public comment period on the proposed Agreement, DEC received information indicating that the Response Program was “*not sufficiently protective of human health* for the reasonably anticipated commercial uses of the Site. . . .” DEC could then seek to renegotiate the Work Plan with the Volunteer. (In this case, no such information was received during or after the comment period.)

The second circumstance (“reopeners”) related to changed environmental conditions or new information (or to fraud by the Volunteer or the Volunteer’s failure to implement the Agreement to DEC’s satisfaction). In such cases, DEC reserved the right to require further investigation or remedial action—but only if the changed conditions or new information indicated that Site conditions or the Response Program is “*not sufficiently protective of human health* for the reasonably anticipated commercial uses of the Site. . . .” Note that there was no reopener for new DEC rules or procedures adopted after the fact.

The DEC-approved Work Plan (VCA Exhibit B) contemplated that additional remediation might be required in two (and only two) circumstances. Under ¶ A.3.b. of the “Phase I” Work Plan, where a release from a hazardous substance-containing tank was determined to have occurred, “appropriate soil sampling beneath and adjacent to the tank” would be required “to determine if a ‘Source Area’ . . . [was] present.” If a “Source Area” were found, it would have to be “remediated.” Similarly, under ¶ A.7. of the Phase I Work Plan, if soil gas readings of VOCs at locations behind the shopping plaza building and in the former septic leach fields identified any “Source Areas,” they would have to be “reme-

diated.” “Source Area” (as used in Exhibit B) was defined, for the specific purposes of the VCA, as “any focal point of known oil or hazardous substance contamination at levels which currently, or reasonabl[y] have the potential to, adversely affect human health or cause any significant off-Site impact, as determined by the Department” (emphasis added). The concept of “significant threat to the environment” has been defined by DEC in the context of inactive hazardous waste sites at 6 N.Y.C.R.R. § 375-1.4. “The mere presence of hazardous waste at a site or in the environment is not a sufficient basis for a finding that hazardous waste disposed of at a site constitutes a significant threat to the environment.”³⁹

Paragraph III.A. of the VCA specified that DEC was to review reports and other submittals by the Volunteer “to determine whether [the report] was prepared, and whether the work done to generate the data and other information in the submittal was done, *in accordance with this Agreement and generally accepted technical and scientific principles*” [emphasis added]. Although DEC “[might] request Volunteer to modify or expand the submittal,” it could do so only to the extent that “the matters to be addressed by such modification or expansion *are within the specific scope of work as described in the Work Plan*”⁴⁰ (emphasis added). Any disapproval of a submittal by DEC had to be communicated to the Volunteer in writing (*within 30 days* of receipt of the submittal, except for the final environmental report and certification where the response time was *60 days*), and DEC had to “specify the reasons for its disapproval.” The Volunteer was entitled to regard a submittal as approved if “no notification or reasonable request for extension is received from the Department within the indicated timeframes. . . .”

The only reference to the New York State Department of Health (DOH) in the 1996 VCA was a requirement (p. 11) that copies of required communications and submittals be sent to the Director of the DOH Bureau of Environmental Exposure Investigation in Albany, in addition to required copies to DEC. DOH was not a party to the Agreement. And nothing in the Agreement expanded the terms of the required Work Plan to include additional requirements imposed by DOH. Although it is true that, not being a party to the VCA, DOH was not bound by the terms of the VCA, it *was* presumably limited to the authority conferred by its enabling legislation.

PLJ, although it had no way of knowing it at the time, was off on a wild ride for the next seven-and-a-half years (ultimately to extend to June 2003) in the course of which the VCA was virtually ignored and DEC and DOH officials seemed to be in competition with one another to add to PLJ’s investigation and cleanup burdens.

During the period that PLJ continued to operate Dilapidated Plaza’s existing shopping center building (“Phase I”), a period which extended until the spring of 2001, it had submitted to six obligations⁴¹ under the DEC-approved VCA Work Plan. Three of these were quickly carried out: (1) copies of all existing environmental assessment reports had already been turned over to Mr. Suave; (2) contaminated sediment/sludge and liquid in Septic Tank #1 was remediated by removal and appropriate off-site disposal; and (3) the connection of Ralph’s Dry Cleaners to the municipal sewer system and the absence of any floor drains still connected to the septic system were verified.

A fourth requirement—that the dry cleaning/laundry building tenant be required to institute improved housekeeping measures to minimize the probability of spillage from the in-building solvent tank (and to enhance the ability to observe any spillage)—was implemented in several steps (after PLJ confirmed its legal options under the carryover lease with Ralph’s Dry Cleaners). Initially, Ralph’s was required to discontinue dry cleaning operations entirely. Later, when its current lease term expired, the lease was not renewed.

The remaining two requirements were more elaborate. PLJ had to attempt to locate, access, characterize and remediate the contents of any underground tanks that might be located behind the shopping plaza building. It was to do this with the aid of Old County Health Department records (which had already been shown to be less than fully accurate for this Site). If, in the course of this investigation, DEC determined that a release of oil or hazardous substances may have occurred from a tank, appropriate soil sampling beneath and adjacent to the tank would be performed with any necessary removal of soils (contaminated to the point of meeting the VCA’s definition of a “source area”—i.e., to levels “which currently, or reasonabl[y] have the potential to, adversely affect human health or cause any *significant* off-Site impact, as determined by the Department”) taking place in accordance with a Department-approved work plan.

Under the other detailed requirement, PLJ was to take 10–12 soil gas readings (using appropriate soil gas probes) at locations behind the shopping plaza building and in the former septic leach fields to more fully characterize the distribution of VOCs in subsurface soils. If, as a result of such soil gas readings, any “source areas” (as defined in the VCA) were identified, PLJ would remediate such areas in accordance with a DEC-approved work plan. (Extensive soil gas readings were actually taken by IEE in early 1996, as part of a Phase II Environmental Site Assessment, even before PLJ signed the Voluntary Cleanup Agreement in April 1996.)

By December, 1996—as documented in four progress reports by IEE—these requirements had been largely satisfied. However, a Target Compound List analysis of soils stockpiled during the removal of Septic Tank #3 (the one located closest to the Dry Cleaners) revealed that PERC was present in excess of Toxicity Characteristic Leachate Procedure (TCLP) regulatory limits (8.97 mg/l versus 0.7 mg/l), consequently requiring disposal as a characteristic hazardous waste. Instead of contenting itself with requiring PLJ to remove and dispose of this isolated hotspot of contaminated soils (as contemplated in the VCA), DEC (through Mr. Suave) persuaded IEE to conduct a soil vapor extraction (SVE) pilot study. While verbally acknowledging that, under the terms of the VCA, implementing an SVE response action was not really something PLJ was required to do, Mr. Suave suggested that PLJ might still want to pursue this approach as a way to avoid “the possibility” and the associated stigma that the site *could* be listed as an inactive hazardous waste site. (In reality, as Mr. Suave and DEC were well aware, this Site could never have been listed as a “Class 2” [significant threat] site, and if listed at all, which was doubtful, would have qualified as no more than a low-risk “Class 3” or “Class 4” site.)

While a series of SVE wells was put in place, including one through the floor slab of the Dry Cleaning store, extensive groundwater monitoring was also occurring to confirm the direction of groundwater flow and determine if any risk was being posed to the North Forks Municipal Well (or to the adjacent Swanee River).

On September 2, 1997, IEE reported to DEC that tests on an initial SVE well indicated that DEC Air Guide-1 limits (governing the need for stack emission controls) were being fully complied with (i.e., no such controls were required), and proposed to install two additional SVE wells (to ensure full coverage of potentially contaminated areas around Septic Tank #3) to complete a year-long monitoring program.

On January 1, 1998, IEE reported to DEC that the direction of groundwater flow from the Site was “southeasterly toward the general direction of the Fortress-Creek-Swanee River confluence” and does “not indicate a [south]westerly flow toward the North Forks municipal well.” Although PERC and two of its transformation products were detected in MW-1 (closest to the former source area—Septic Tank #3), none of these volatiles were detected above the method detection limit (of 1 ug/l) in samples from the two wells located between the former source area and the municipal well.

With uncharacteristic speed, DEC responded on February 11, 1998, agreeing with IEE that the January report had “clearly demonstrated that the municipal well located at North Forks will not be impacted by the groundwater contamination identified at this site.”

Unfortunately, DEC’s insatiable appetite for information was not to be so easily assuaged.

Without missing a beat, DEC requested additional groundwater investigation work because the wells (deployed with DEC oversight and direction) were “inconclusive” as to whether an off-site impact “has or could occur” due to the release of PERC to the groundwater. (IEE dutifully offered to collect another year’s worth of quarterly groundwater samples from the furthest down gradient wells to demonstrate the lack of any increasing concentration trend or the risk of off-site migration.) A supplemental work plan was requested to determine “if the PERC in the site soils could cause a potential health exposure based on the contemplated use of the site” (in which case remedial measures would be necessary to reduce that risk). These additional requests were made despite the consistent results of prior groundwater monitoring, which showed buildups of PERC only in the immediate vicinity and down gradient of the source area and undetectable or at trace levels anywhere else. And they were made despite previous DEC assurances that PLJ would not have to worry about air quality within the Dilapidated Plaza building. (Could it be that DOH, having been ceded an expanding role by DEC, was now flexing its muscles?) These requests were also made without obvious regard to the limited investigation and remediation measures called for in the 1996 VCA.

To add insult to injury, the February 1998 DEC letter went on to assure PLJ that, even if DEC decided to list the Site as an inactive hazardous waste site, PLJ “would not be required to perform any additional investigative/remedial work other than what is required” under the terms of the VCA. This assurance had a hollow ring because (a) DEC had *already* required PLJ to perform far more investigative/remedial work than what the VCA required, and (b) DEC was more and more treating the Site as though it *were* a Class 2 hazardous waste site and PLJ as though it were a culpable responsible party (and not a completely innocent non-PRP prospective purchaser and cleanup volunteer).

On August 24, 1998, a revised work plan meeting all of DEC’s new requirements was finally submitted by IEE. It proposed to install two additional 2-inch diameter SVE wells (and one 2-inch diameter monitoring well) behind Ralph’s Dry Cleaners. To address concerns about possible contamination beneath the floor slab at Ralph’s, a core would be drilled through the slab and a solid PVC pipe would be embedded and connected (similar to the other SVE wells) to an extraction blower. Soil samples from borings would be collected and subjected to PID screening. After system start-up, PID readings would be taken (and a vapor sample collected) from each SVE well monthly for three months to verify the effectiveness of the SVE system and that emissions were

within DEC Air Guide limits. After collecting the baseline data, monthly sampling would be changed to quarterly (expected to continue for a year). Quarterly samples would also be taken from a suite of groundwater monitoring wells (paired to collect samples at shallow and deeper depths). Graphs would be prepared depicting contaminant concentrations over time, with remedial activities terminating when results (i.e., asymptotic conditions) indicated that little additional benefit would be realized from continued operation. At this point, soil samples would be taken to evaluate residual contamination levels.

The point of diminishing returns had long since been reached.

Finally, a full four months later (on December 18, 1998), DEC approved IEE's August work plan.

After another year-and-a-half of data collection by IEE, PLJ unveiled plans to demolish the existing Dilapidated Plaza building and construct a new big-box Bright and Shiny Hardware Store at the Site. Ken Cavalier was again brought into the process to secure needed Town of North Forks approvals. Site sketches and engineering plans were developed to portray the new and improved shopping center and meetings and public hearings were scheduled (including SEQRA review—involving a long-form EAF and negative declaration), beginning in October 2000, before the Town of North Forks, which was delighted that a prestigious national retailer was interested in locating there. Town officials and members of the community welcomed the revitalization of Dilapidated Plaza, which would yield not only much-needed tax revenues and jobs, but would boost business for surrounding retailers and would stimulate the rejuvenation of the whole North Forks/Route 666 commercial zone. Final site plan approval by the North Forks Planning Board came on December 11, 2000.

As the Dilapidated Plaza site was poised to enter "Phase II" under the VCA, IEE and DEC were still bogged down in a labyrinth of questionable "Phase I" monitoring and research.

While the new development project was pending before the Town of North Forks, IEE was instructed by PLJ, as soon as the last tenant had vacated the Dilapidated Plaza building, to move forward (with DEC approval and oversight) with removing any remaining accessible remnants of the septic system and leach field. Most of these components were previously identified, but could not be removed until all tenants had vacated because of utility lines that could not be disconnected. In addition to the previously excavated Septic Tanks #1, #2, and #3, two additional metal septic tanks (#4 and #5), discovered in a 1996 magnetometer survey, were removed from the site. (Contaminated soils associated with Septic Tank #3 had also been previously excavated

and properly disposed of off-site.) An additional "tank" #6 (actually a grease trap installed in the sewer line to intercept heavy grease loads from any restaurant tenants) was found and removed during demolition of the Dilapidated Plaza building.

In October 2000, IEE submitted a Remedial Action Plan (RAP) to DEC on behalf of PLJ to address the steps to be taken pursuant to "Phase II" of the VCA. (The "Phase II" work plan consisted of two straightforward requirements:⁴² (1) demolish the dry cleaning store, appropriately drain and dispose of the in-building solvent tank and recycling system, and their contents; and (2) remove and appropriately dispose of, after sampling and testing, any underground septic tanks, underground storage tanks and associated piping, and their contents, prior to demolition or other earth-moving or construction likely to disturb them.)

The RAP set forth the procedures to be used to complete the removal of identified source areas. Because of the planned excavation of all contamination source areas, the demolition of the shopping plaza building (and associated utility lines), and the construction of a new, large-footprint retail building, it was proposed to remove and dismantle the existing SVE and groundwater wells. Since the objective of "Phase II" was to complete the removal of identified source areas, no engineering controls were proposed. Although it is difficult to imagine how, with all of the source areas removed and the entire Site capped beneath impervious layers of pavement or concrete, any additional remedial action might be needed or further monitoring required, IEE nevertheless proposed (in response to DEC prodding) to install new groundwater monitoring wells to replace those abandoned prior to site redevelopment. (IEE proposed to specify the locations and depths of these wells at a later time, after test results were available for post-excavation subsurface soil quality samples.) IEE even agreed to entertain the need for post-development remedial action based on the contaminant levels remaining in the subsurface and the final location and elevation of the new building.

Although the initiation of "Phase II" source removal should have been viewed as superseding any previously initiated palliatives (source reduction and monitoring) under "Phase I," DEC (and DOH) weren't about to allow their cleanup volunteer to escape their grasp quite so easily. After all, PLJ wasn't some recalcitrant polluter that would be a lot of trouble to take on; it was an innocent volunteer with deep pockets that had always shown a willingness to cooperate and had readily agreed to almost anything DEC asked for. This was certainly no time to be letting PLJ off the hook.

Two-and-a-half months later (December 12, 2000), DEC responded to the proposed RAP. IEE's plan did not go far enough. PLJ would need to install the portion of a

new SVE system that would reside in the source area, beneath the new building prior to construction—so that if excavation did not obtain the proposed soil cleanup objectives, an SVE system could be operated to remove the remaining contamination. An SVE system would also be necessary “in the event that a possible source area was not identified and that [it] could result in an unacceptable impact to indoor air quality.” (There was no explanation of how any unidentified source area could remain with the old building removed and the subsurface soils and former leachfields thoroughly screened by earth-moving equipment. Nor was it explained how an SVE system, if it could not be required under the VCA in “Phase I,” could be imposed during “Phase II,” with even fewer traces of remaining VOCs. Or why indoor air quality was suddenly a concern, despite previous assurances to the contrary, and despite the removal of source areas.)

In the design of the SVE system, although DEC required a soil gas vapor barrier beneath the concrete floor slab only in areas of known PERC contamination, PLJ and the management of Bright and Shiny decided to extend such a barrier beneath the slab of the entire massive Bright and Shiny building. (Any hope that DEC or DOH would find this reassuring, causing them to moderate their insistence on extended stack gas monitoring, was misplaced.)

IEE tried again. A new Remedial Action Work Plan was submitted in January 2001. This Plan included updated monitoring results. It showed continued declines in groundwater concentrations and dramatic reductions in SVE stack emissions (even before building demolition). The RAP proposed to excavate and remove soils from below the building and the remaining septic structures to the point that soil cleanup objectives (1.4 mg/kg for PERC—as set forth in DEC TAGM # 4046)⁴³ were achieved. If soil cleanup objectives were not met in the area of the new building footprint, new SVE piping would be installed in the area(s) of elevated concentrations. New monitoring wells would be installed at locations to be based on the extent and location of soil contamination.

After another two-and-a-half months (and barely in time to avoid scuttling the new development project and real estate deal), DEC on March 26, 2001 approved the Remedial Action Work Plan of January 2001, subject to various conditions. (These included DEC’s insistence on installing SVE piping at all locations where the new building would rest over soils contaminated by the former dry cleaning process, and the need to perform a full Target Compound Analyte List analysis on one soil sample and one down-gradient groundwater sample obtained from the area of highest contamination.)

IEE submitted an updated Remedial Action Plan in April 2001 (quantifying the relatively small extent of soil contamination within the building footprint that might exceed DEC regulatory limits). An updated Remedial Action Report was submitted on June 18, 2001, followed in August by the installation of new groundwater monitoring wells.

In the meantime, the real estate deal was concluded between PLJ and Bright and Shiny Hardware, with ownership passing to the latter. (An Escrow Agreement entered into on March 27, 2001 established a \$165,000 Environmental Escrow Fund to ensure Bright and Shiny that any remaining cleanup work would be done and that an assignable liability release would be issued by DEC.)

On September 10th, DEC issued a letter stating that the Remedial Action Report submitted three months earlier could not be approved “without first determining if a complete soil vapor extraction (SVE) system is needed at this site.” It also indicated that the separate letter report from IEE on post-development monitoring well installations and sampling, including frequency of sampling events, “must be submitted prior to receiving final [RAP] approval.” By this time, the new retail store was fully constructed and would shortly open for business. An electric-powered continuous SVE system with two fan-driven SVE vents (SVE-East and SVE-West) had been installed—from beneath the building slab and venting from the building roof. These new SVE units—which were also equipped with wind-driven turbines—replaced the pre-demolition (non-electric-powered) wind-driven SVE extraction wells.

IEE submitted another Remedial Action Report on October 25, 2001. This Report took issue with DEC’s insistence (at the urging of DOH) that SVE stack emissions, having already been shown to easily meet DEC Air Guide limits, continue to be measured at quarterly intervals for at least a year, with no indication of how much PERC in the stack emissions would be considered too much and no finite duration to the continuation of such monitoring. Also, IEE was concerned that DOH might unjustifiably seek to apply to SVE stack emission levels its 1999 DOH “guidelines for PERC in air.”⁴⁴

That guideline states: “NYSDOH recommends that the average air level in a residential community not exceed 0.1 milligrams of PERC per cubic meter of air (0.1 mg/m³),⁴⁵ considering continuous lifetime exposure and sensitive people.” It is not applicable or relevant to the Dilapidated Plaza situation for several reasons. In the first place, the inside of a commercial building should not be judged by a guideline designed for a “residential community.” In the second place, PERC levels in the stacks of an SVE system, which was designed to extract PERC

from subsurface soils and groundwater, have no public health significance (as long as DEC stack emission limits are not exceeded) other than that the *more* PERC that shows up in the stacks, the less is left behind in the ground. (A cleanup volunteer should not be penalized because it is employing a pollution control device that works.) In the third place, no one is likely to come in contact with concentrated stack emissions on the roof of a commercial building, 25 feet off the ground. In the fourth place, even if the PERC levels measured in the SVE stacks were actually found inside the commercial building, the workers likely to inhale it would have far lower exposure levels over far shorter periods of time than the populations addressed by the DOH guideline.⁴⁶ And, in the fifth place, an indoor air standard for the protection of workers has been set by the federal government (OSHA). That standard—689 milligrams per cubic meter of air (689 mg/m³), or 100 parts per million—is considerably less stringent than the DOH residential guideline.

On November 15, 2001, DEC issued its response to the October 2001 RAP, requesting that the RAP be resubmitted for approval after IEE addressed yet another set of comments. Comments included: the need to articulate the rationale (already provided previously) “of why treatment of the emissions are [sic] not necessary” (response: because they were shown to be far below DEC Air Guide-1 limits, which define when emission treatment is required); and a requirement that the report be certified by a registered professional engineer (see previous discussion of this subject). The letter also reiterated the insistence by the regional DOH representative, Robinson Crusader (no doubt, responding to directives from Albany), that the SVE system “must be operated and monitored for a minimum of one year, with emissions from each system sampled at least monthly, a record [maintained] documenting any interruptions of the electric powered fan, and documentation that the building has remained under positive pressure as designed for the duration of the monitoring period.” (An October 25, 2001 letter from Bright and Shiny’s electro-mechanical engineers had explained that, at all times the building is occupied, 15,600 cubic feet per minute [CFM] of outdoor air is pumped into the building through rooftop units. Two exhaust fans remove 1,200 CFM from the building, leaving 14,400 CFM of positive pressure.)

In the meantime, new groundwater monitoring results showed no target VOC compounds at detectable concentrations in any of the samples from the four down-gradient monitoring wells, with the exception of new MW-2—located directly down-gradient of the former source area beneath the former Dry Cleaners. (It contained PERC at 33 ug/l.)

Everyone on the PLJ team felt like they had fallen through the looking glass. Not only was DEC totally disregarding the letter and intent of the 1996 VCA, but it was generally taking two or three months (rather than the 30 days specified in the Agreement) to respond to submittals, and it was withholding approvals because of unexplained and inconsistent demands by DOH which was not even a party to the original Agreement.

Moreover, at this point—six-and-a-half years after entering into the VCA—PLJ no longer even owned the property but it had a large sum of money sitting in an escrow account that couldn’t be accessed until DEC issued a liability release.⁴⁷

Back on the scene comes Ken Cavalier. He advises IEE to hold off a bit on responding to DEC’s latest letter and recommends that indoor air samples be taken inside the Bright and Shiny building. This is done on November 20, 2001, using passive diffusion PERC monitors (badges) left in place for eight hours at breathing height at three locations in the store (two are on pillars near where the SVE pipes pass through the building; the third is near the front of the building at a cashier’s station⁴⁸). The results come back. No PERC is found in the checkout area (at the detection limit of 2.1 ug/m³). Barely detectable concentrations are found (2.8 and 2.9 ug/m³) at the other two locations. The highest levels are more than 200,000 times below OSHA worker safety levels. Vindication at last?

Cavalier requests a meeting with the DEC regional director and relevant staff professionals. The meeting occurs on December 18, 2001 at DEC’s office in Lakota. One of the regional office participants is the DEC attorney who represented the Department in negotiating the VCA in 1996 for Dilapidated Plaza. By the end of the meeting two hours later, the four DEC meeting participants have no trouble agreeing in principle that PLJ should receive a Liability Release as soon as possible, conditioned only on the conduct of one more groundwater sample at new MW-2 (to confirm the accuracy of the August result) and a year’s worth of indoor air monitoring. Regional Director Truehart cautioned, however, that concurrence still needed to be obtained from DEC headquarters and from DOH.

True to form, DEC headquarters and DOH were soon heard from. In response, PLJ reluctantly agreed to adding two long-range groundwater samples (in June 2002 and June 2003) at the sentinel monitoring well (new MW-2) to provide assurance that earth-moving activities had not somehow mobilized a slug of not-yet-seen PERC contamination. PLJ also yielded to DOH’s insistence that SVE stack emissions be monitored on a quarterly basis in parallel with indoor air monitoring—so the subsurface behavior of VOCs could be tracked in relation to what was occurring inside the building. (This

is perhaps nice to know, but not anything PLJ should be required to monitor at its expense.)

On December 31, 2001, Ken Cavalier embodied the updated monitoring plan in a letter to DEC, and IEE collected the last (regular) groundwater sample at new MW-2 (PERC levels were virtually the same as in the previous sample). IEE also shut down the electric fans serving the SVE system—so that quarterly indoor sampling can occur under worst-case (intermittent wind-driven rather than continuous electric-driven) SVE operating conditions. (At DOH’s request, the fans will be turned back on briefly just before SVE stack samples are taken—to make conditions as uniform as possible from one sampling event to the next.)

At this writing (a week later), PLJ awaits word of its (conditional) Liability Release from DEC—although no one on the PLJ team would be very surprised at this point if one or more of the concurring multitudes at DEC or DOH seek to inject still further conditions or requirements before closure can be achieved.

Conclusion and Disclaimers

With regard to the never-ending saga of Dilapidated Plaza, I hope there *is* one (a “Conclusion” that is).

As far as New York State’s voluntary cleanup program is concerned, I hope it lives long and prospers.

I am very concerned, however, that if cleanup volunteers continue to be misled and mishandled (not intentionally or maliciously, of course) as PLJ was in the Dilapidated Plaza case, there will be fewer and fewer of them willing to come forward. This would be truly unfortunate. There is no reason New York’s program(s) for promoting the cleanup and rehabilitation of private- or public-held brownfields has to be more dysfunctional than anybody else’s. In fact, I would hope it could be better than anybody else’s.

New Yorkers have strong and varied opinions on most things. Why should brownfields be different? The views expressed in this article are strictly my own. And, if they are sometimes forcefully presented, and if other views are dismissed a little too sarcastically or offhandedly, it is not because mine is the only legitimate opinion and everyone else is stupid or misguided. It is only because I care deeply about the issue and I see brownfields as perhaps the one area where the interests of the environmental community, businesspeople and low-income urban residents largely coincide.

The accelerated cleanup and beneficial reuse of brownfield sites has the potential to do so much good for both the environment and the economy that it literally pains me to see this potential squandered by otherwise intelligent public servants and social activists in furtherance of their individual agendas.

My purpose in this essay is not to offend but to inform; to provoke thought, not anger. My ire and frustration, where they bubble to the surface, are directed not at individuals (who are hard-working and try their best), but at institutions and procedures (which often stifle creativity and initiative and exalt form over substance). If, despite my efforts to avoid it, my words have caused hurt or umbrage to any individual, I apologize. Please let me know (I may have been more cavalier than I meant to be). Perhaps I can buy a glass of wine to make amends.

Endnotes

1. *Recommendations to Reform and Finance New York’s Remedial Programs*, Superfund Working Group, June 2, 1999, p. 12. (“*Superfund Working Group Report*.”) Although New York State has created an artificial distinction between municipally owned sites cleaned up under the 1996 Clean Water/Clean Air Bond Act’s Environmental Restoration Program (known as the “Brownfields Program”), and privately owned sites addressed voluntarily with private resources (under what is known as the “Voluntary Cleanup Program”), for purposes of this article “brownfields” is used broadly to encompass both publicly and privately owned sites that meet the commonly accepted definition.
2. No sites have ever been listed in this category. *New York State Inactive Hazardous Waste Disposal Site Remedial Plan—2001 Report*, p. 2 (Table 1).
3. Non-contributory responsible parties (i.e., those who did not cause or contribute to contamination) have been allowed to participate in the VCP even where a Class 2 hazardous waste site is involved.
4. *Superfund Working Group Report*, p. 45.
5. Federal and state funds even to remediate significant hazard sites are finite and usually insufficient. Less problematic brownfield sites will be cleaned up only with the infusion of large amounts of private funding.
6. There are some exceptions to this generalization. There are some urban areas (e.g., parts of New York City) with good demographics that are considered desirable places to live and work, where real estate values remain high. In such areas, the value of the real estate provides enough of an incentive to undertake even costly cleanups, without the need for government assistance or encouragement. Unfortunately, such areas are relatively rare—especially in upstate New York.
7. The Brownfields Coalition is a roundtable initiative (made up of a diverse array of interest groups) coordinated by the New York City Partnership and built upon the Pocantico Roundtable for Consensus on Brownfields (itself consisting of representatives of environmental and environmental justice organizations, community groups, municipalities, business organizations and real estate, banking and utility interests). It issued the *Brownfields Coalition Final Report* on June 3, 1999. That report was reprinted in the NYSBA *The New York Environmental Lawyer*, Vol. 19, No. 3, Summer 1999, pp. 23–67.
8. *Coalition Report*, *supra*, n. 7, pp. 24–25.
9. See also Philip Weinberg, *Control of Suburban Sprawl Requires Regional Coordination Not Provided by Local Zoning Laws*, NYSBA New York State Bar Journal, Vol. 72, No. 8 (October 2000).
10. The Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980—more commonly known as “Superfund.”

11. Proposed state Superfund reform legislation advanced by Governor Pataki and other political leaders *would* correct or partially correct certain deficiencies in the current voluntary cleanup program. However, these “reform” proposals would leave many of the issues and problems identified in this article uncorrected—and, in a few cases, would actually make the problems worse.
12. Remarks of Governor George E. Pataki to the Annual Meeting of the Business Council of New York State, The Sagamore, Bolton Landing, September 25, 1996.
13. *Governor Pataki Announces \$918,466 to Restore Brownfields*, Press Release, May 17, 2001.
14. *Governor Pataki Calls for Immediate Passage of Superfund Reform*, Press Release, April 18, 2001.
15. *Id.* The 1999 Superfund Working Group also recommended (p. 23) that

the cleanup goal of the State Superfund Program, the Oil Spill Program for long-term remediations, and the Voluntary Cleanup Program [should] be the protection of public health and the environment and at a minimum, must eliminate or mitigate all significant threats to public health and the environment presented by the hazardous wastes, hazardous substances, or petroleum at the sites through proper application of scientific and engineering principles.

However, it recommended (p. 27) that the selection of remedies “consider the current, intended, and reasonably anticipated future land uses at a site and surrounding properties. . . .” And it recommended (p. 30) that “non-responsible parties conducting a cleanup under the Voluntary Cleanup Program . . . be required to clean up [only] on-site contamination,” but that the state should “require the responsible party or parties to conduct [any] off-site remediation” or should seek cost recovery against such parties if public funds are used to conduct such remediation.” *Superfund Working Group Report*. The Executive Committee of the New York State Bar Association’s Environmental Law Section transmitted to the Governor (on February 14, 2000) the recommendations of its Ad Hoc Task Force. See *Report of the Ad Hoc Task Force on Superfund Reform* (as amended—October 3, 1999), *New York Environmental Lawyer*, Vol. 20, No. 1 (Winter 2000) pp. 30-32.

16. *Memorandum in Support of Governor’s Superfund Reform Bill* (can be found on the state of New York Web site at: <http://www.state.ny.us/dob/pubs/executive/0102articlevibills/healthmhcc_memo.html>).
17. *Memorandum in Support*, p. 20 of 45.
18. *Id.*
19. *Brownfields Coalition Final Report*, pp. 39–40.
20. *Similarity of DEC and Sierra Club Approaches*: The Sierra Club in New York State has adopted the unabashed policy on brownfield sites of driving cleanups to predisposal conditions. (Mr. John Stouffer, Legislative Director, Sierra Club Atlantic Chapter, Albany, NY, personal communication.) Although doubtless well-intentioned, such an approach would produce many undesirable and unintended consequences. It would create a strong disincentive against volunteering to do cleanups—except at the most desirable, high-value brownfield sites. Less posh sites, including the areas most in need of revitalization, would be left to rot and leach their pollution. New development would gravitate to outlying suburbs, contributing to sprawl. Unfortunately, New York State’s approach to brownfields more closely resembles that of the Sierra Club than that of most other U.S. states. Under current law (ECL § 27-1313(5)(d)), the goal of the state Superfund Pro-

gram “shall be a complete cleanup of the site through the elimination of the significant threat to the environment posed by the disposal of hazardous wastes at the site and of the imminent danger of irreversible or irreparable damage to the environment caused by such disposal.” The DEC, by regulation (6 N.Y.C.R.R. 375-1.10(b)), has translated this goal into language that could almost have been written by the Sierra Club: “[T]he goal of the program for a specific site is to restore that site to pre-disposal conditions, to the extent feasible and authorized by law.” It goes on to state: “At a minimum, the remedy selected shall eliminate or mitigate all significant threats to the public health and to the environment presented by hazardous waste disposed of at the site through the proper application of scientific and engineering principles.”

21. One especially troublesome provision in the Governor’s bill (proposed ECL § 27-1313(1)(b)) would require DEC to consider a list of factors in selecting a remedy—including “conformance to standards and criteria that are generally applicable, consistently applied, and officially promulgated, that are either directly applicable, or that are not directly applicable but are relevant and appropriate, unless good cause exists why conformity should be dispensed with. . . .” This “conformance to standards, criteria, and guidelines” (SCG) factor is based upon the so-called “ARAR” (applicable or relevant and appropriate) approach under federal Superfund, which basically allows regulators to impose cleanups capable of meeting the most stringent numerical standards relevant to the environmental medium (or media) found to be contaminated (or threatened). In New York State, where all (non-saline) groundwater is designated as drinking water, and acceptable risks for potential carcinogens have been set up to 100 times lower (more stringent) than those set by the U.S. Environmental Protection Agency, and the Governor boasts of having “the most stringent environmental and public health standards in the nation,” would-be cleanup volunteers at non-Superfund sites would have to be very foolish to agree to such a conformity requirement in most instances.

The bill also proposes (new § 27-1316) to require the DEC commissioner to establish a technical advisory panel to recommend soil cleanup levels that will provide for a multi-category approach to contaminated sites, where the more complete the cleanup, the fewer the restrictions on allowable site uses. While this may help avoid wildly excessive soil cleanup requirements, it may leave sites with even low-level groundwater contamination (especially if the contaminant is a known or suspected carcinogen) with cleanup burdens so onerous that only the very wealthy or very foolish will be willing to undertake them.
22. At the request of DEC, for example, I participated (as a representative of the business community) in a May 3, 2001 Press Conference in Binghamton with Commissioner Erin M. Crotty to support Governor Pataki’s Superfund refinancing and reform package. However, I agreed to participate only if I could share two one-page lists with DEC. The first was a list of “Positive Features of [the] Governor’s Superfund Reform Bill.” These were the points I emphasized at the press conference. The second was a list of what I viewed to be the “Less Positive Features of [the] Governor’s Superfund Reform Bill.” These points I kept to myself.
23. Under both federal and state Superfund laws, “responsible parties” include current owners of contaminated sites, even if they did not cause or contribute to the contamination. However, for much of the past decade, EPA and most states have been willing to exercise their enforcement discretion to not hold innocent or non-contributory owners (who are willing voluntarily to perform partial site cleanups) to the same standard of liability as true polluters. There is, thus, no legal imperative requiring DEC or the state to pursue non-contributory current owners who agree to

- cooperate with the same prosecutorial zeal as those who actually caused or contributed to the contamination. Moreover, many cleanup volunteers at brownfield sites are not even non-contributory “owners.” They enter into voluntary cleanup agreements as prospective purchasers, prior to assuming ownership of the property. There is no standard or theory of liability under which would-be buyers not yet in possession could be forced to clean up a site—much less subject to the same remedial objectives as responsible parties.
24. Cited in *Superfund Working Group Report*, p. 15. This DEC Memo, *inter alia*, delegated the responsibility for developing and managing the Voluntary Cleanup Program to staff in the Divisions of Environmental Remediation and Environmental Enforcement.
 25. The New York State Department of Environmental Conservation’s Voluntary Remedial Program, March 6, 1966.
 26. *Number of Voluntary Agreements Signed*: As of March 31, 1998, voluntary cleanup agreements had been signed to address 119 properties around the state. *Superfund Working Group Report*, p. 14. By the end of March 2000, approximately 134 VCP agreements (covering 164 sites) had been signed by DEC. Another 136 applications/agreements were “in the administrative pipeline” awaiting approval or signature. Larry Schnapf, *Summary of New York State Voluntary Cleanup Agreements*, NYSBA The Environmental Lawyer, Vol. 20, No. 2 (Spring/Summer 2000), p. 4. Through FY 2000–2001, 196 agreements had been executed between volunteers and DEC to address 255 projects. *New York State Inactive Hazardous Waste Disposal Site Remedial Plan—2001 Report*, p. 22.
 27. *DEC Internal Procedures*: DEC has established “Voluntary Cleanup Program Internal Procedures,” that set forth in about 13 pages of fine print how DEC will implement the program. Although these Procedures affect far more than an internal allocation of responsibilities among DEC staff and can have a major bearing on when and whether a cleanup volunteer can hope to receive a liability release, they have never gone through formal notice and comment rule-making as required by law. A request by the author for a copy pursuant to the Freedom of Information Law has so far been stonewalled by DEC.
 28. *Structure and intent of DEC Policy and Guidance Documents*: DEC provides a remarkably candid insight on its Web site into the structure and intent of its various policy pronouncements and guidance documents. Under a new Policy System for development of department guidance documents, adopted in 1997, only guidance that “affect[s] outside constituents (the public, regulated community, consultants and others) will become Program Policy,” while “[g]uidance directed to staff that addresses primarily internal procedures for [the Division of Environmental Remediation’s] programs will become Internal Guidance Procedures.” However, even outwardly directed guidance clearly intended to affect the public—such as TAGMs and STARS directives, which “are used to ensure compliance with statutory and regulatory requirements, including case law interpretations, and to provide consistent treatment of similar situations”—are not to be considered “a fixed rule under the State Administrative Procedure Act section 102(2)(a)(i),” and “do not create any enforceable rights for the benefit of any party.” Not only that, but staff is free to “vary[] from this guidance as the specific facts and circumstances may dictate. . . .” <<http://www.dec.state.ny.us/website/der/tagms/plcyappl.html>> and <<http://www.dec.state.ny.us/website/der/tagms/plcystru.html>>. In other words, the public has no right to rely on (or, in some cases, even know about) the rules and procedures being followed by DEC. And these rules may be freely established, and changed, without notice, comment or accountability.
 29. *See, e.g.*, 6 N.Y.C.R.R. § 702.2(c) (standards or guidance values based on oncogenic effects). Also, while EPA attempts to protect against cancer risks in the range of 10⁻⁴ to 10⁻⁷ (1 in 10,000 to 1 in 10,000,000), New York State seeks to protect uniformly against cancer risks in the range of 1 in 1,000,000 (10⁻⁶).
 30. *Soil and Groundwater Guidance*: When contaminated soil is found at a site, DEC and DOH use TAGM #4046 issued by DEC for sites being remediated under the state Superfund Program as the cleanup objective for the specific contaminant of concern contained in the soil. (*Superfund Working Group Report*, p. 19). However, as discussed in footnote 43 *infra*, DEC tends to automatically apply TAGM soil cleanup objectives to non-Superfund voluntary cleanup program sites—even in cases (e.g., a capped site) where the TAGM lacks even theoretical relevance or validity. Cleanup objectives for groundwater are a little more complicated to divine. For non-saline (Class GA) groundwaters, waste discharges may not impair the best usage of the receiving water, which is “as a source of potable water supply.” 6 N.Y.C.R.R. §§ 701.1, 701.15. This classification is assigned to all (non-saline) groundwaters of New York State. 6 N.Y.C.R.R. § 701.18(a). Standards and guidance values for protection of human health and sources of potable water supplies, “Health (Water Source) values,” are to be “the most stringent of the values derived” using the procedures referenced in 6 N.Y.C.R.R. § 702.2(b). Where a specific MCL (maximum contaminant level) has been specified, the standard or guidance value is to be equal to the MCL (unless based solely on aesthetic considerations). For substances (such as the dry-cleaning solvent tetrachloroethylene) that belong to a “principal organic contaminant class” and for which there is no Specific MCL, “the standard or guidance value shall be 5 ug/L [or a less stringent value set by DOH].” 6 N.Y.C.R.R. § 702.3. DEC is given broad authority to require “any person responsible for a discharge” to submit information to enable the department to “evaluate the short- and long-term effect the discharge may have on groundwaters of the State or for the purpose of [setting certain effluent limitations],” and to “require the installation and operation of monitoring facilities in order to assure compliance with effluent limitations or to evaluate the effect of the discharge on the quality of the groundwater.” Specific monitoring requirements are to be established by DEC “on a case-by-case basis.” 6 N.Y.C.R.R. § 702.20. Stringent effluent limitations for discharges to Class GA groundwaters “are not applicable,” however, to certain “sewage” discharges where the “subsurface sewage disposal system [was] designed, constructed and maintained in accordance with guidelines and standards satisfactory to the department.” 6 N.Y.C.R.R. § 702.21(a)(1). For substances (such as tetrachloroethylene) that do not have groundwater effluent limitations listed in Table 3 of § 703.6(e), the effluent limitation “shall be equal to the guidance value”—except that “a modified effluent limitation” may be substituted where factors such as analytical detectability and treatability indicate that achieving the stricter limit “would be clearly unreasonable.” 6 N.Y.C.R.R. § 702.16(c).
 31. New York State Department of Environmental Conservation, Division of Environmental Remediation, *New York State Inactive Hazardous Waste Disposal Site Remedial Plan—2001 Report*, p. 23, Figure 12.
 32. TIFs are most effective in large metropolitan areas and for high value-added projects. It is doubtful that many of the quarter-acre brownfield sites that abound in New York State’s smaller cities, towns and villages would support the use of this financing mechanism.
 33. *Who Signs Off On Voluntary Cleanups In Other States?*: Examples: Connecticut (“licensed environmental professionals”); Massachusetts (“Licensed Site Professionals”); Nevada (“Certified Environmental Managers”); North Carolina (private contractors—pursuant to specified criteria); Ohio (“Certified Professionals”); West Virginia (“licensed remediation specialists”).

34. *Requirement of Certification by Licensed New York State Professional Engineer*: As is true for many of the cleanup programs administered by the Division of Environmental Remediation, the requirement of having a New York state licensed professional engineer's stamp for remedial action plans under the voluntary cleanup program originated in the State Superfund program, was then exported to the 1996 Clean Water/Clean Air Bond Act "Brownfields Program" applicable to municipalities, and ultimately was carried over to the VCP. Thus DEC's "Brownfields Procedures Handbook—Brownfields Program," TAGM #4058 (Section 3) states: "While the site investigation does not require a professional engineering firm to perform the work, the remedial alternatives report, remedial design, and construction oversight/final engineering certification report all require a New York State licensed professional engineer's stamp before the Department will approve them." Even if such a certification were warranted for engineering designs in the case of a Bond Act project being funded by the state, they would not be warranted for privately-funded voluntary cleanup projects—especially where complex engineering remedies are not being proposed. The same section of the Handbook itself suggests a less arbitrary and restrictive approach: either use a consultant "on DEC's Qualified Remedial Consultants (QRC) List," or include "a description of the consultant's experience in investigating environmental contamination." The description "must document that the firm employs a sufficient number of staff with experience of sufficient duration, diversity, and expertise to complete the proposed project."
35. See TAGM #4030 ("Selection of Remedial Actions at Inactive Hazardous Waste Sites"), May 15, 1990.
36. These additions are not necessarily problematic in their own right. Indeed, requiring that present and future land uses be considered in all cases is a good thing, because it injects needed site-specific flexibility into the process. What is problematic is all the new procedural baggage being placed on the back of the voluntary cleanup program. If the VCP doesn't promote accelerated cleanups and reduced red tape, people won't use it.
37. *Properties and Toxicity of Tetrachloroethylene (PERC)*: PERC is a nonflammable, colorless liquid at room temperature. It readily evaporates into air and has an ether-like odor. It is a manufactured chemical that is widely used in the dry-cleaning of fabrics, for degreasing metal parts and in manufacturing other chemicals. It is found in a number of consumer products, including some paint, glues and spot removers. When people breathe air containing PERC, it is taken into the body through the lungs and passed into the blood, which carries it to other organs. A large fraction of this PERC is breathed out, unchanged, into the air. Some is stored in the body (e.g., in fat, liver and brain) and some is broken down in the liver into other compounds and eliminated in urine. Once exposure stops, most of the PERC and its breakdown products leave the body in several days (full elimination may take several weeks). The potency of PERC to cause health effects is low, but breathing air with high PERC levels can damage many parts of the body. Dry-cleaning workers exposed for 9 to 20 years to high workplace levels of PERC had reduced scores on behavioral tests and showed biochemical changes in blood and urine. The effects were mild and hard to detect. Long-term exposure of healthy adults living (for 10.6 years on average) in apartments near dry-cleaning shops yielded small effects, with average test scores slightly lower than those of unexposed individuals. Short-term exposure (for 8 hours or less) of volunteers to high doses of PERC resulted in central nervous system symptoms such as dizziness, headache, sleepiness, lightheadedness and poor balance. But these effects were mild and disappeared soon after exposure ended. Some studies suggest (but do not prove) that PERC may cause a slightly increased risk of cancer and reproductive effects among exposed workers. However,

workplace levels are often considerably higher than those found in outdoor air or indoor air of homes or apartments. DOH Info. for Consumers, "Tetrachloroethene (PERC) in Indoor and Outdoor Air" (rev. Aug. 1999). Available on the N.Y.S. DOH Web site.

The Agency for Toxic Substances and Disease Registry (ATSDR) within the Federal Department of Health and Human Services has pointed out, however, that "some of the highest environmental levels of tetrachloroethylene ever recorded (at waste disposal sites, for example) were still 150 times smaller than the concentrations shown to produce symptoms of toxicity in animals after repeated exposure." Drinking or eating the equivalent of approximately 60 to 80 mg. of undiluted PERC per kilogram of body weight has produced effects similar to drinking alcohol. (PERC was once used as a medicine to eliminate worms in humans.) Harm to the liver has been produced in animals at doses of approximately 100 mg/kg/day, but "these levels of exposure are more than 1,000 times higher than would be expected even if humans ingested the most contaminated drinking water ever reported." ATSDR, "Toxicological Profile for Tetrachloroethene" (Jan. 1990), U.S. Public Health Service.

Most people can smell PERC when it is present in the air at a level of 1 part per million or more. Much of the PERC that gets into water or soil evaporates into the air. Microorganisms can break down some of the PERC in soil or underground water. In the air, PERC is broken down by sunlight into other chemicals brought back to the soil and water by rain. It does not appear to collect in fish or other animals that live in water. ATSDR, "Toxic FAQs for Tetrachloroethylene (PERC)," Sept. 1997. <<http://www.atsdr.cdc.gov/tfacts18.html>>.

In a Health Consultation at a Federal Superfund Site in Atlanta, ATSDR made the following comments regarding PERC-related health hazards:

Though contaminant levels may be present above reportable quantities, a public health hazard only exists if there was an actual exposure to the chemical and at high enough doses to result in adverse health effects. . . . Because someone would have to be very close to the small area where volatile organics were detected, the likelihood that anyone would be exposed to levels high enough to cause adverse health effects is very small.

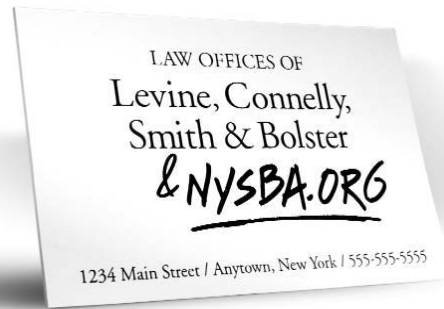
ATSDR, "Health Consultation—Former Rally's Restaurant and Briarcliff Station, Atlanta, Dekalb County, Georgia," undated. <http://www.atsdr.cdc.gov/HAC/PHA/rally/fr_r_p2.html>.

38. See footnote 29, *supra*.
39. 6 N.Y.C.R.R. § 375-1.4(c).
40. ¶ III.A.2.a.
41. A seventh requirement had to do with asbestos-containing materials. It was fully carried out, but is not discussed here in the interest of space.
42. A third requirement, not pertinent here, dealt with proper disposition of asbestos-containing materials.
43. Technical and Administrative Guidance Memorandum #4046 (Jan. 24, 1994) provides a procedure for determining soil cleanup levels "at individual Federal Superfund, State Superfund, 1986 EQBA Title 3 and Responsible Party (RP) sites, when the Director of the [Division of Hazardous Waste Remediation] determines that cleanup of a site to predisposal conditions is not possible or feasible." Not only is the Dilapidated Plaza site not among the above-listed types of sites to which TAGM #4046 purports to apply, but the soil cleanup levels it specifies [e.g., 1.4 mg/kg as the recommended soil cleanup objective for PERC] are derived

by predicting how much contamination will leave the contaminated soil as leachate and eventually reach and disperse into groundwater. With an impervious shopping center sitting atop any remaining hot spots of contaminated soil, there is no longer any opportunity for contaminants to leach from soil into groundwater—except where they are in direct contact.

44. New York State Department of Health, Bureau of Toxic Substance Assessment, 1999 (rev.). "Tetrachloroethene (PERC) in Indoor and Outdoor Air" (Info. for Consumers). Available on the DOH Web site.
45. This is equivalent to 15 parts per billion.
46. The DOH guideline assumed "continuous lifetime exposure and sensitive people." Retail workers are unlikely to be exposed 24 hours a day, 7 days a week, over a 70-year lifetime. See Gary Gartano, "Factors Influencing Tetrachloroethylene Concentrations in Residences above Dry-Cleaning Establishments," *Archives of Environmental Health*, Jan. 2000, p. 18 of 22. Eight hours a day, 5 days a week, over a 10-year employment cycle would be a more realistic exposure scenario. Retail workers are also less likely to include the most sensitive human receptors—infants, children, pregnant women, the very old and those with serious illnesses. Also, a large, well-ventilated commercial building, built on grade (with no basement or crawl space to collect vapors), and containing a soil gas vapor barrier, is less likely to accumulate high levels of PERC than a relatively small house or apartment which is less well ventilated and lacks a vapor barrier.
47. The VCA commits DEC to issuing the release letter (the text of which is attached to the VCA as an exhibit) as soon as the specified work plan has been carried out to DEC's satisfaction.
48. If PERC were to accumulate throughout the store as a result of subsurface seepage, cashiers would be at least as heavily affected as other store employees because they stay in one place for much of the day. On the other hand, if PERC were to accumulate in isolated locations due to the storage or use of PERC-containing solvents (unrelated to subsurface activities), other workers would be exposed to higher levels than the cashiers.

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