Sent: Friday, May 05, 2006 11:31 AM
Subject: A DARK LEGACY'S IMPACT...SUPERFUND

Dear Aquathin Dealer OnLine, Splash NewsBulletin and Allergic Reaction NewsBulletin Members;

On March 18, 2006, I sent you a terrific article written by Environmental Attorney Daniel Hull entitled "The Clean Water Act: Where Have We Been & Where Are We Going?" as published in Water and Wastewater Products E-News, one of the many news wire services Aquathin subscribes to. I am pleased to bring you Mr. Hull's recent article appearing below discussing the Superfund, its history, and clean up of toxic sites. Many Americans will recall several of the disasters he revisits...but what will be impressive and insightful to all, is that most of us equate toxic site clean ups with soil remediation, when actually over half deal with water. Only 500 sites have been cleaned up to date and 10,000 remain on the highest priority list...with over 300,000 lesser abandoned sites requiring cleanup.

Additionally, Mr. Hull points out that toxic sites resulting from misuse of chemicals and waste that could have occurred many many years ago, pass the liability on to the new property owners. When Aquathin purchased this large facility in 1990, we had a thorough (and expensive) environmental survey of the property that included the history of previous owners, deep soil sample analysis both directly down and tangentially (to assure no contamination from neighbors). I recall many years ago that when our bank began new construction for its regional headquarters (and not far from here), heavy machinery unearthed several drums of toxic material that had been buried a long time, ultimately costing the bank hundreds of thousands of dollars in cleanup and lost time. They had not performed an environmental survey and the liability shifted to them. I respectfully recommend that whenever you consider purchasing commercial real estate, no matter the how small the size or price, that you execute an environmental survey. Failure to perform such due diligence could find you spending an exponential sum over the purchase price.

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Warmest regards to all...as well, your comments are always welcome and very much appreciated.

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A Dark Legacy's Impact

More often than not, Superfund is about cleaning up polluted groundwater

By J. Daniel Hull, JD

PITTSBURGH -- This, the sixth installment of my column, *Waterlawged*, has been difficult to write -- and I finally figured out why. Any lawyer who writes in earnest about "Superfund" and that statute's mission to address the serious, disturbing, and, indeed, darkest legacies of America's industrial history almost immediately starts to sound like next year's chapter president of the Sierra Club in Marin County, Calif. See? I'm doing it already. So I'm worried that soon after this installment comes out, I'll get a call from one of my best and oldest rustbelt or energy clients with facilities in Indiana, Ohio, or New Jersey telling me our firm's counseling and litigation services on waste disposal, air, and/or water issues are simply no longer required. And, oh yeah, Dan, the general counsel will say, can you return that copy of Thomas Cleary's translation of Sun Tzu's *Art of War* I gave you 10 years ago? Because you obviously won't be needing it.

There is good reason for concern. Even the Superfund program's detractors cannot look you in the eye and tell you that the abandoned wastes legacy and health threats Superfund addresses are not real. The statute may very well be a failure -- but the tragedies of Woburn, Mass., and Love Canal, NY, 25 years ago were real. People got sick, deformed, or died because of the "old" wastes.

And a lot of this had to do with groundwater and drinking water.

When Congress passed "Superfund" in 1980, the new law carried with it arguably more hype -- and more genuine high hopes -- than any environmental statute before or since. Awkwardly titled the "Comprehensive Environmental Response Compensation and Liability Act of 1980" (CERCLA) (42 U.S.C. § 9601 et seq.), it was unique in both its subject matter and its toughness. Nicknamed "Superfund" for a tax on industry it imposed, the legislation responded to the growing realization that inactive or abandoned hazardous waste sites in the United States presented a very real threat to public health. Both Congress and the Jimmy Carter Administration believed Superfund would complement the already established "cradle-to-grave" hazardous waste control scheme of the Resource Conservation Recovery Act (RCRA), enacted four years earlier in 1976, to regulate active waste-disposal processes. Superfund would deal with "dead" and, theoretically, far more dangerous sites which RCRA did not cover: unmanned, derelict, forgotten, and, even worse, undiscovered sites. It would need to be a lot tougher than RCRA. Even today, the roughly 1,300 (there are far more sites that could qualify as Superfund sites) abandoned sites EPA has listed as scheduled for cleanup present disturbing statistics: approximately 11 million people, about one-third of them children, live within one mile of one of these 1,300 sites, according to the Web site *www.scorecard.org* (operated by Green Media Toolshed).

Twenty-six years later, Superfund is still with us, and is tougher than RCRA. Liability is strict, and joint, and several. Statutory defenses are few and limited. Superfund imposes liability on landowners, successors-in-interest, and persons no longer even connected to a waste site to conduct extensive, lengthy, and costly cleanups of often century-old waste sites. Responsibility is shifted to "potentially responsible parties" (PRPs) without regard to: (1) when or how the original disposal took place or, (2) the fact that a party may have used due care -- or even more than due care -- in handling materials. PRPs include past and present site owners and operators, waste generators, and the transporters who had selected a site for disposal. For its part, the U.S. Environmental Protection Agency (EPA) is still required to maintain a national contingency plan to establish criteria for cleanup, and to rank the sites eligible for cleanup on a "National Priority List." EPA is also authorized by Superfund to remediate the sites, including taking emergency removal actions, a centerpiece of the legislation. Between 1981 and 1995, Superfund's "fund" was created by an industry tax on petroleum, chemical, and other companies. This raised about $1.5 billion annually for responses and some remediation.

"A Civil Action:" Woburn, Mass.

Superfund is often perceived by the public as a "land" cleanup and remediation statute. However, the law, like other environmental statutes, from the outset focused on preventing or remediating contaminated water and groundwater. In fact, Superfund, from the beginning, was implicitly more "clean water-focused" than most of the other major environmental statutes passed in the 1970s and 1980s. *Anderson v. Cryovac*, a 1982 wrongful-death and negligence case that became the subject of Jonathan Harr's best-selling book *A Civil Action*, ran through Massachusetts state and federal courts in the 1980s and 1990s as the city of Woburn, Mass. struggled with the deaths of eight children from leukemia. The Woburn area had been used for industrial operations for more than two centuries. More recent Woburn disposers -- W.R. Grace, Beatrice Foods, and a tannery -- were taken to court for allegedly dumping carcinogenic solvents into the Woburn water table. Due to the *Anderson* litigation and the threat to the public water supply, EPA in 1983 designated 330 acres of Woburn a Superfund site (the Wells G and H site). By their very nature, abandoned waste sites threaten water, groundwater, aquifers, and water-treatment systems and were perceived as serious threats to public drinking supplies. So Superfund addressed the
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oldest chemical and metal residues left over from animal hide tanning operations in New England and the Mid-Atlantic from as early as the 1600s. More "recent" disposals in the 19th and 20th centuries, which occurred from larger operations that pre-dated modern zoning, land use, and environmental laws, exacerbated the problem.

Love Canal: 16 Acres in Niagara Falls, NY

Water supplies were almost certainly threatened by the wastes Superfund targeted, and they had been for years. Love Canal, the poster event and main impetus for Superfund's relatively noisy passage in Congress, was also a clean water problem which had been building for nearly 100 years. Love Canal, which was named after William T. Love, was a rectangular, 16-acre landfill in the southeast corner of the City of Niagara Falls. In the 1890s, Love excavated a canal to provide hydroelectric power to the area for industrial use. But Love Canal was only partially dug because the project was abandoned at the turn of the century when the alternating current was invented, thus obviating the need for industry to be located near a source of power. The unfinished canal was 3,000 feet long and nearly 100 feet wide. Between 1900 and 1938, most of the canal bed contained impounded water. During that time, residents reportedly even used it as a swimming hole.

According to a report prepared by the New York Department of Health in April 1981, Love Canal was one of 100 chemical dump sites in Niagara County. The Hooker Electrochemical Company apparently ran out of available land for disposal and decided around 1910 to use the abandoned canal itself to dispose of more than 21,000 tons of various chemical wastes. Some of the wastes were drummed; some were not. And they included chlorinated hydrocarbon residues, processed sludge, and fly ash. Hooker stopped dumping around 1953, and then they covered over the 16-acre site.

The landfill acreage was then deeded to the Niagara Falls school system. An elementary school and homes were built adjacent to the abandoned landfill in the mid-1950s. Residential construction resumed on areas adjacent to the landfill until 1972.

What happened in the next few years made headlines all over the world.

During the 1960s, people in the area complained about odors and unidentified residues leaching from the site. But in the 1970s, above-normal amounts of rain and snow at Love Canal made the water table rise, bringing contaminated groundwater to the surface, and the odors intensified. In some houses directly adjoining the landfill, oily substances were discovered in basement sump pits, and chemically contaminated wastes started surfacing in back yards.

By 1977, subsidence of the landfill (caused by the rise in the water table) presented something unimaginable: 55 gallon drums eerily surfaced like coffins, together with un-drummed chemical wastes. Studies were finally conducted in late-1978, and the results showed that chemicals had indeed migrated to surrounding areas. They also showed that runoff had drained into the Niagara River about 3 miles away from the intake tunnels for the city's drinking-water treatment plant, which served 70,000 people. Many residents reported that they or their children were sick, getting sick, or deathly afraid of being sick. Eventually, New York state health officials confirmed what had been a living reality for Love Canal residents for decades: miscarriages, higher rates of birth defects, low birth weights, pulmonary illness, and cancer. More than 400 residents were relocated. In 1979, and before Superfund was passed, President Carter declared Love Canal a federal disaster area. Eventually, New York state authorities confirmed that chemical compounds identified at Love Canal included benzene (associated with leukemia and lymphoma), carbon tetrachloride (liver tumors), dioxide (nervous system and psychological disorders), methylene chloride (respiratory distress, death), and trichloroethylene (respiratory and cardiac arrest, liver damage, visual defects, deafness).

Documented and medically confirmed congenital defects of children born in Love Canal areas were tragic, to say the least: deafness, cleft palates, clubbed feet, mental retardation, deformed or missing kidneys, webbed toes, extra toes, heart defects, absence of deciduous teeth, and one child born with three ears. More than 25 children were affected with one or more of the foregoing.

Superfund's Flaws

Throughout its 35-year history, Superfund has had critics of every variety, and usually for good reasons. Early on, industry and critics, both economic and legal, howled about Superfund's retroactive imposition of liability. Even in upholding its provisions, several federal judges have used terms like "draconian," "far reaching," and "beyond the expectations" of property owners to describe its strict liability provisions. Meanwhile, the public almost immediately grew weary of the slow pace at which most cleanups occurred. Even Love Canal itself, which was placed on Superfund's National Priority List (NPL) in October 1981 when the NPL first appeared, was not deleted from the list until September 2004. Moreover, the Superfund "fund" was never enough to absorb the costs of emergency response, cleanup, and enforcement costs it was designed to subsidize. Subsequently, more inactive sites were discovered than could be adequately handled by the federal program. States stepped in to fund the shortfall, with some state legislatures creating their own state "superfund" laws. The federal program meanwhile was often bogged down in litigation -- mainly by the U.S. Department of Justice (DOJ) itself or related private enforcement suits -- which ironically have impeded cleanup and remediation after an initial response. In the late-1980s, Congress held hearings on the inability of the program to encourage self-audits and voluntary cleanup and remediation; no resolution was ever reached. Lawyers and even environmental consultants often abused the program.

Money Problems, Too

On its 25th anniversary in 2005, Superfund, while still active and in many ways successful in addressing some sites and raising public awareness of

the "abandoned site" issue, was officially broke. The program had a budget shortfall of $250 million (this is still the yearly shortfall) and still nearly 475 unaddressed sites. In 2004, 30 of the projects listed on the NPL had received no funding. In effect, for the past 12 years, funding levels have remained stagnant. According to the Government Accounting Office, moreover, between 1998 and 2005, Superfund congressional appropriations have gradually declined (from $1,297,000,000 in 1998 to $1,247,000,000 in 2005), and still average about $1.2 billion a year. Approximately $1.5 billion a year was lost when the program's "fund," or Superfund Trust Fund from industry taxes, legislatively expired in 1995.

And there is still much work to do. There are still more than 1,200 sites on the NPL, organized according to the program's hazardous ranking system. What's more, only 500 of the original NPL sites have been completed, with as many as 10,000 sites on the "waiting list" for the NPL -- the "worst sites" list. Over the next 30 years, as many as 300,000 lesser abandoned sites will require cleanup, according to EPA. The national bill for this cleanup: as much as $250 billion. Approximately $32 billion of this total will be devoted to 700 sites on the NPL. And due to persistent budget constraints, a large, but still undetermined, amount of the $250 billion will be borne by land owners and potentially responsible parties.

The National Water Quality Inventory

Not surprisingly, well over half of the "worst" Superfund sites -- those listed on the NPL -- involve groundwater contamination. The National Water Quality Inventory, required every two years by Section 305(b) of the Clean Water Act, is based on reports submitted by all 50 states, territories, and five Indian tribes. According to the 1997 report, of the 1,121 sites for which remedies had been selected at the time, more than 700 involved groundwater contamination (NWQI, pp. 476-477). According to the 2000 report, moreover, the "top 10" major sources of groundwater contamination were: USTs, septic systems, landfills, spills, fertilizer applications, large industrial facilities, the Superfund sites themselves, animal feedlots, pesticides, and industrial surface improvements.

Metal Bank and Breslube

Two of the National Inventory Superfund sites -- the Metal Bank Superfund site in Philadelphia and the Breslube site in Pittsburgh -- are nearly textbook examples of "high-priority" urban CERCLA sites with serious groundwater issues. Like other NPL sites with water contamination, the Metal Bank site has an unusually protracted history, even for Superfund. DOJ sued the Metal Bank defendants in 1980 under RCRA and Superfund to force a cleanup. On March 17, 2006, the federal district court in Philadelphia finally approved a settlement for an $18 million cleanup of a 10-acre site on Milnor Street. A former scrap metal and recycling facility, the Metal Bank site is located along the Delaware River near sensitive natural habitats for wildlife. Between 1968 and 1972, Metal Bank salvaged scrap metal and drained oil from used transformers to reclaim copper parts. The result was soil and groundwater contamination of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), heavy metals, and volatile organic compounds (VOCs). Further, the court found there is "considerable evidence" of actual or threatened releases of waste from the site migrating into the Delaware River. Another ongoing NPL site (in which my firm represents two of the PRPs) is the Breslube site in suburban Pittsburgh. Breslube was used between 1978 and 1983 as a fuel-oil recycling facility and between 1983 and 1986 as a fuel-oil processing facility. After 1986, it was used as a waste-oil transfer station with scores of generators and transporters using the site. Interestingly, while no public drinking-water supplies were determined to be contaminated at Breslube, DOJ's concern was that groundwater would eventually become contaminated with PCBs, VOCs, and PAHs, which were found in elevated levels in the soil. Although only 125 people used groundwater within a mile of the site, Breslube, which is bordered by a fresh water stream, is located within three miles of 34,000 residents. The potential for migration of contaminated groundwater was perceived to threaten public water supplies.

Good News

Not all the news is bad. First, the program did a lot to take initiatives in formulating strategies and funding packages to complete many of the cleanups, and develop and stick to preventative programs -- like ISO 14001 -- which preached that environmentalism was good business. Second, a lot of the Superfund sites were cleaned up. Finally, and most importantly, Superfund's tough, often "draconian" approach of making liability strict and retroactive is an achievement. Years from now, the public and political will back in 1980 to make persons who were, in many cases, only tangentially related to a site, or who had in fact exercised due care in handling toxic wastes, will likely be regarded, as harsh as it was, as a pivotal moment in the history of U.S. environmental policy. Superfund addressed threats to the environment and health which no one could claim did not exist. The statute's challenge is the same one which existed in 1980. The work to do is apparently endless.

This article originally appeared in the May/June 2006 issue of *Water & Wastewater Products*, Vol. 6, No. 3.

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