U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

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April 4, 2008

SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Water Resources and Environment

FROM: Subcommittee on Water Resources and Environment Majority Staff

SUBJECT: Hearing on "Water Resources Contamination and Environmental Cleanup in the Hudson Valley"

PURPOSE OF HEARING

On Friday, April 11, 2008, the Subcommittee on Water Resources and Environment will hold a field hearing to highlight the Federal and State agency roles in addressing public health risks posed by water resources contamination in the Hudson Valley, as well as the adequacy of existing human health standards for volatile organic compounds of concern in the region. The Committee will hear testimony from representatives of Federal, state, and local governments, environmental and health experts, citizen groups, and Hudson Valley community members.

SUPERFUND

"Superfund" is the name given to the environmental program established to address the nation's hazardous waste sites. It is also the name of the fund established by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), as amended. This law was enacted in the wake of the discovery of toxic waste dumps such as Love Canal and Times Beach in the 1970s.

Congress enacted CERCLA on December 11, 1980. It provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites, established liability of persons responsible for releases of hazardous waste at these sites, and created a trust fund funded through a tax on the chemical and petroleum industries and a corporate environmental income tax to provide for cleanup when no responsible party could be identified.

Actions under Superfund are authorized for a release (or threat of a release) of a hazardous substance into the environment. A "hazardous substance" includes all those identified as hazardous under the Solid Waste Disposal Act, the Clean Water Act, the Clean Air Act, and the Toxic Substances Control Act. Response is also authorized for releases of "pollutants or contaminants", which are broadly defined to include virtually anything that can threaten the health of "any organism". Most nuclear materials and petroleum are excluded, except for those petroleum products that are specifically designated as hazardous substances under one of the laws mentioned above.

CERCLA authorizes two kinds of response actions:

1) Short-term removals, where actions may be taken to address releases or threatened releases of hazardous substances requiring prompt response; and
2) Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances. These actions can be conducted only at sites listed on EPA's National Priorities List ("NPL").

The Superfund trust fund is not to be used for responding to releases of naturally occurring unaltered substances; releases from products which are part of the structure of residential buildings, businesses, or community structures (such as asbestos); or releases into drinking water supplies due to ordinary deterioration of the water system. An exception to these three limitations is made, however, in cases of public health or environmental emergencies when no other entity has the authority and capability to respond in a timely manner. CERCLA directs EPA to give priority to releases that threaten public health or drinking water supplies.

National Priorities List ("NPL")

CERCLA directs EPA to assemble a NPL to identify the most serious sites requiring cleanup. Sites may be placed on the list through various mechanisms: numeric ranking established by EPA's Hazard Ranking System, designation by states or territories of one top-priority site, or meeting all three of the following requirements: the Agency for Toxic Substances and Disease Registry of the U.S. Public Health Service has issued a health advisory that recommends removing people from the site; EPA determines the site poses a significant threat to public health; and EPA anticipates it will be most cost-effective to use its remedial authority than to use its emergency removal authority to respond to the site.

To date, there have been 1,581 sites listed to the NPL. Of these sites, 324 sites have been deleted resulting in 1,257 final sites currently on the NPL. With the proposal of six new sites this past month, there are 60 proposed sites awaiting final agency action: 55 non-Federal sites and five federal facilities. There are a total of 1,317 final and proposed sites on the NPL.

With all Superfund sites, EPA tries to identify and locate the parties potentially responsible for the contamination. For the newly listed sites without viable potentially responsible parties, EPA will investigate the full extent of the contamination before starting significant cleanup at the site. Therefore, it may be several years before significant cleanup funding is required for these sites.

Superfund Cleanup Standards

Current law requires EPA and other Federal agencies to comply with Federal and State Applicable or Relevant and Appropriate standards, Requirements, criteria, or limitations ("ARARs") when determining cleanup standards to be followed for wastes treated on-site. The statute does not contain its own cleanup standards; rather, it relies on ARARs to ensure that 1) response actions are protective of human health and the environment, and 2) applicable state and federal laws and regulations are not violated during the cleanup procedure. The statute also requires that numerical standards derived from the Safe Drinking Water Act and water quality criteria established under the Federal Water Pollution Control Act would be applicable to the cleanup process if determined relevant and appropriate by federal and state regulators.

Superfund Program Funding

The Superfund law was created under a "polluter pays" principle, where the party responsible for causing pollution pays for the cleanup of the pollution. Under this principle, owners or operators of contaminated sites, or generators or transporters of hazardous wastes, are required either to carry out remedial activities at or to pay for the cleanup of a contaminated site. The statute imposes retroactive, joint-and-several, strict liability on responsible parties, and empowers the EPA, under this liability scheme, to clean up waste sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-lead cleanups. The Superfund law also created a trust fund for EPA to clean up "orphan sites", where parties responsible for causing pollution were no longer in existence, refused to clean up, or could not afford to pay for the cleanup. The trust fund historically was funded by cleanup costs that EPA recovers from responsible parties, and by three dedicated taxes on petroleum, chemical feedstocks, and corporate income.

However, the taxes expired at the end of 1995, and the amount of unobligated money in the fund gradually decreased. By the end of FY 2003, the fund's unobligated balance was zero, down from a high of $3.8 billion in 1996.

Since 1995, the annual Federal budgets have compensated for the reduction in dedicated tax revenue by increasing the contribution from the general fund of the U.S. Treasury. In fiscal years 2004 through 2008, virtually the entire Superfund program appropriation came from general Treasury revenues. Additional revenues from cleanup costs that EPA recovers from responsible parties also continue to fund the trust fund.

A March 2008 report by EPA's Office of Inspector General ("IG") evaluated the Superfund cost recovery and billing practices at a sample of NPL sites. The report found that EPA regions have recovered $165 million of $294 million (56 percent) of the total Superfund costs from the sites it reviewed. Potentially responsible parties at these sites have generally paid what they have been billed. However, EPA has not recovered as much as $129 million (44 percent) and has determined it will not attempt to recover between $30 million and $90 million of this amount. According to the IG, this indicates a potentially significant breakdown in controls over Superfund cost recovery. The report recommended that EPA (1) enhance cost recovery guidance for all regions, (2) implement mechanisms to support calculating how efficiently it is recovering site costs and tracking corrections, and (3) implement performance measures to track how efficiently it is recovering these costs. EPA concurred with the recommendations and has proposed actions to address them.

The "polluter pays" principle continues to drive Superfund cleanups whenever EPA can identify a responsible party who created a Superfund site. EPA has been working to identify whether responsible parties can be identified and required to pay cleanup costs. Because of the EPA Superfund enforcement program's efforts, about 70 percent of Superfund site cleanups currently being conducted are performed or paid for by the parties responsible for contaminated sites. However, there is a large number of site cleanups that have not started due to inadequate funding.

Even though most Superfund site cleanups are done or paid for by responsible parties, there is evidence that the Superfund program is not being funded at a level commensurate with the program's needs and capability. Evidence from prior years indicates that cleanup projects failed to advance due to insufficient funds, delaying public health and environmental benefits, as well as economic benefits derived from returning sites to productive use. For example, according to a report from the EPA IG, EPA obligated a total of $320 million in remedial action construction activities in FY 2002, a difference of $97 million from the EPA Regional Offices' total need of $417 million. In addition, another report by the EPA IG identified a funding shortfall of $175 million for cleanups that were ready to be initiated in FY 2004.

For the Superfund program, the Views and Estimates of the Committee on Transportation and Infrastructure for Fiscal Year 2009 recommends funding at a level commensurate with current program needs and as necessary to maintain the average number of construction completions over the past 10 years. The Committee recommends funding for the Superfund program at a level that matches its capability, so that no cleanup projects fail to advance due to lack of funding, delaying public health and environmental benefits, as well as economic benefits derived from returning sites to productive use. The Committee supports increased funding for on-the-ground removal and remedial activities.

In fact, in the 106th Congress, the Committee on Transportation and Infrastructure considered H.R. 1300, the "Recycle America's Land Act of 1999", which provided the sense of the Committee that the taxes to support the Superfund be reinstated, commensurate with revenue needs. This legislation, which was favorably reported by a vote of 69-2, was never considered by the full House of Representatives.

BACKGROUND ON HOPEWELL JUNCTION

The Hopewell Precision Area Groundwater Contamination Site is located in Hopewell Junction in the Town of East Fishkill, Dutchess County, New York. Hopewell Precision, Inc. (and its predecessor, Hopewell Fabricators, Inc.) has operated at either 15 or 19 Ryan Drive since the early 1970s, manufacturing sheet metal parts and assemblies. Various painting and degreasing processes used at these locations generated wastes that were reportedly disposed of directly on the ground, resulting in a groundwater contamination plume which now extends about 1.5 miles in a southwesterly direction from 15 and 19 Ryan Drive. The area surrounding the Site is mostly residential, all of which is served by private drinking water wells and septic systems.

Groundwater is contaminated with volatile organic compounds ("VOCs") such as trichloroethylene ("TCE") and 1,1,1,- trichloroethane ("TCA"). Since March 1980, TCE and TCA have been detected in a drinking water well and several monitoring wells located on the Hopewell

Precision property. Both VOCs have also been detected in nearby private drinking water wells. In February 2003, EPA collected samples from 75 residential wells in the vicinity of the Site and found that five of these wells were contaminated with TCE. In response to this finding, EPA initiated a removal action under the federal Superfund program in March 2003.

Since February 2003, EPA Region 2 has collected drinking water samples from wells in the vicinity of Hopewell Precision Area Contamination Site. TCE and TCA were both detected in numerous private well samples, at individual concentrations up to 250 micrograms per liter. In addition, a direct breakdown produce of TCE was detected in two samples. Several instances of TCE detection exceeded its Maximum Contaminant Level ("MCL")[1] of 5 micrograms per liter.

Contamination from the site is also believed to have an impact on ponds located downgradient of 15 and 19 Ryan Drive. In April 2003, EPA collected water and sediment samples from small ponds located about 300 feet south-southwest (i.e., downgradient) of 15 and 19 Ryan Drive. TCE was detected at concentrations of 4 micrograms per liter and 3.4 micrograms per liter in water samples and 88 micrograms per kilogram in a sediment sample. EPA collected additional samples from two ponds located approximately 900 and 4,500 feet southwest of Hopewell Precision in May 2003. TCE was detected at an estimated concentration of 3.6 micrograms per liter in a sediment sample from the closer pond, but was not detected in samples collected from the farther pond.

On April 27, 2005, EPA placed Hopewell Precision on the National Priorities List.

A public health assessment, conducted by the New York State Department of Health, was completed on September 28, 2007. The public health assessment concluded that public health actions were necessary in the past and may be necessary in the future to address the long-term public health risk posed by exposure to site-related and non-site related VOCs.

EPA continues to sample the 38 carbon filtration systems on a quarterly basis to ensure that they are working properly. Furthermore, the New York State Department of Environmental Conservation will continue to sample their 14 carbon filtration systems on a quarterly basis. EPA will also continue to sample impacted and potentially impacted private wells, accompanied by indoor air sampling as deemed appropriate, in order to evaluate how the plume of contaminated groundwater is moving and to determine whether additional homes may be impacted in the future. Should additional impacted residences be identified, EPA will install point-of-entry-treatment systems and/or sub-slab ventilation systems in those residences.

[1] MCLs are the maximum permissible levels of a contaminant that may be present in water used for drinking purposes.

OTHER NPL SITES IN THE HUDSON VALLEY REGION

Brewster Well Field, Village of Brewster

NPL Listing Dates	Threat and Contaminants	Description	Cleanup	Cleanup Progress
Proposed Date: 12/1/1982 Final Date: 9/1/1983	Groundwater contaminated with VOCs including tetrachloroethylene (PCE) and vinyl chloride. River water and sediments also contain VOCs.	The source of the contamination was traced to a dry-cleaning establishment that has been in operation since 1958. Operators disposed of dry-cleaning wastes in a well located adjacent to the establishment until 1983.	In 1986, continued to operate the existing air stripping system at the well field and designed and constructed a groundwater management system that would contain the plume of contamination and restore groundwater quality in the vicinity of the site by extracting the contaminated ground water from wells, treating the extracted groundwater with an air stripper, and reinjecting the treated water into the ground. In 1991, after the groundwater management system was constructed and started up, the reinjection wells began to clog. After evaluating various corrective measures, it was determined that the most appropriate approach would be to discharge the treated groundwater to the East Branch Croton River instead of reinjecting it. Excavated about 100 cubic yards of sediments, sludge, and soil contaminated with VOCs from the dry well located outside of the dry cleaners; treated/disposed of these materials off-site; removed the dry well; and decontaminated the excavated dry well and associated debris and disposed of them off-state at an EPA-approved hazardous waste facility.	The source of the contamination at the well field, the dry well, has been excavated and removed from the site. The Village of Brewster's groundwater treatment system continues to treat groundwater for distribution to the public, eliminating the risk of ingesting contaminated water. The groundwater management system, which has been in operation since 1998, has treated approximately 251 million gallons of contaminated water to date. It is estimated that 26,000,000 gallons of contaminated groundwater will be treated per year for 10 years.

Carroll and Dubies Sewage Disposal

NPL Listing Dates	Threat and Contaminants	Description	Cleanup	Cleanup Progress
Proposed Date: 6/24/1988 Final Date: 2/21/1990	On-site groundwater is contaminated with VOCs as well as some chlorinated VOCs.	Site was made up of seven inactive lagoons that were used for the disposal of various wastes since about 1970. Until 1979, waste from two nearby cosmetic manufacturers was deposited into unlined lagoons at the site. Septic tank waste also was accepted at the site until 1989. Five of the seven lagoons were filled, covered, and graded. The two uncovered lagoons were fenced.	Cleanup included the excavation and off-site treatment and disposal of approximately 13,300 tons of lagoon sludge and soil contaminated with organic and inorganic contaminates; soil vapor extraction to heat subsurface soils impacted by VOCs, unless practicable to excavate and dispose these soils off-site; on-site treatment of some contaminated soil and materials by ex-situ soil vapor extraction prior to off-site disposal; and backfiling and regarding of excavated areas with clean soil. Cleanup also included natural attenuation of organic contaminants in the groundwater; implementation of institutional controls to restrict the use and installation of groundwater wells throughout the contaminated groundwater plume; monitoring of the groundwater; and sampling in Gold Creek.	Construction complete. Groundwater monitoring is conducted to ensure that the remedy remains protective. Recent monitoring data indicates that the extent of the plume has been established, benzene concentrations appear to decline with distance away from the former lagoons. No additional work is recommended at this time, other than continued monitoring.

Nepera Chemical Company, Inc., Town of Hamptonburgh

NPL Listing Dates	Threat and Contaminants	Description	Cleanup	Cleanup Progress
Proposed Date: 10/1/1984 Final Date: 6/1/1986	A wide variety of VOCs, semi-volatile organic compounds (SVOCs), pesticides, PCBs, PAHs, as well as inorganic compounds and cyanides have also been detected in groundwater monitoring wells at the site.	Site is a 29.3-acre former industrial waste disposal facility. It is a rural, residential and agricultural area near the confluence of two streams, with wetlands nearby. The former wastewater lagoon area, containing six backfilled lagoons, occupies an area of about five areas. Between 1953 and 1967, the lagoons were used to dispose of approximately 50,000 gallons a day of wastewater from the plant in Harriman. The plant produced a variety of pharmaceutical and industrial chemicals. State inspectors detected leaks from the lagoons in 1958 and 1960. Operations were discontinued in December 1967. By 1974, all lagoons had been backfilled with soil.	All lagoons were filled by 1974, and a fence was constructed to limit access to the site. Three drums were discovered during the remedial investigation test pit excavation during 1991 and these were removed and disposed of after analysis. A fence was installed around the five-acre lagoon area in 1995. In 1988, a remedial investigation and feasibility study to determine the nature and extent of the contamination at and emanating from the site was agreed to, to identify and evaluate remedial alternatives. A second phase was begun in 1993 to expand the groundwater investigation and also to address additional on-site and off-site concerns. Additional groundwater monitoring wells were installed in 2002 and groundwater monitoring samples were collected in 2002, 2003, and 2004. In addition, extensive soil sampling activities were conducted in 2002. A final remedial investigation was issued in March 2006. The final feasibility study, addressing the subsurface and surface oil contamination and the groundwater contamination at the site, was issued in July 2007.	Filling the wastewater lagoons and restricting access via fencing on the site has limited potential exposure to the public, while further investigations leading to the selection of final cleanup remedies continue. The remedial investigation was completed in March 2006 and the FS was issued in July 2007. The Proposed Plan detailing the remedial alternatives for the site was also released by public comment in July 2007. A Record of Decision for this site was issued in Fall 2007.

Shenandoah Road Groundwater Contamination Superfund Site, Town of East Fishkill

NPL Listing Dates	Threat and Contaminants	Description	Cleanup	Cleanup Progress
Proposed Date: 1/11/2001 Final Date: 6/14/2001	Groundwater at the site is contaminated with VOCs, primarily PCE. To a lesser extent, breakdown products of PCE, including TCE, have been detected as well. The horizontal extent of the PCE plume has been determined based on the sampling of approximately 230 residential wells at the Site. The plume has migrated radially from the source area at 7 East Hook Cross Road with a primary flow component to the north extending approximately 3,000 feet. The plume has also migrated approximately 2,000 feet to the south and east of the source area.	In October 2000, EPA and the New York State Department of Environmental Conservation (NYSDEC) conducted investigatory work at a former commercial facility at 7 East Hook Cross Road, Hopewell Junction and discovered a 1,200 gallon metal septic tank containing materials exhibiting extremely high concentrations of PCE. Information obtained by EPA and NYSDEC indicates the facility was used between the late 1960's and early to mid 1970's for the cleaning of microchip holders or "racks." According to former employees at the facility, waste cleaning solvent (PCE) from this process was discharged into the septic system. During excavation of the contaminated soil associated with the former septic tank, two additional PCE disposal areas were discovered. Also, in August 2001, EPA discovered a buried "acid pit" behind the former 7 East Hook Cross Road facility.	This Site is being addressed in two stages: emergency response actions, including providing a permanent alternate water supply for the affected residents, and a long-term remedial phase which will focus on investigation and remediation of the contaminated groundwater. Point-of-entry-treatment (POET) systems were installed by EPA in homes where the well was contaminated at or above drinking water standards to ensure a safe supply of water. EPA monitored wells near the Site without POET systems to ensure that they meet drinking water standards. These initial actions were taken to protect the health of the public until a more permanent solution could be implemented. In November and early December 2000, EPA excavated the septic tank associated with the facility at 7 East Hook Cross Road and removed its contents for transportation and off-Site treatment and disposal. EPA also excavated contaminated soil associated with the septic tank which was temporarily stockpiled on Site. It was necessary for EPA to demolish the facility prior to excavation of the underlying contaminated soil. During excavation of the contaminated soil associated with the former septic tank, two additional PCE disposal areas was staged at the Site and removed for off-Site disposal by a potentially responsible party in August 2001. Excavation activities associated with the former acid pit were completed in January 2002. Off-site disposal of approximately 2,000 tons of contaminated soil associated with the former pit was completed by January 2002. In May 2001, IBM assumed responsibility for the completion of the soil removal action at the 7 East Hook Cross Road source area started by EPA, as well as continued maintenance of the POET systems. Also, IBM evaluated alternate water supply for the affected residents of the Site. IBM is performing the Remedial Investigation/Feasibility Study (RI/FS)	As part of the initial emergency response action, EPA installed 57 POET systems in homes where residential wells were contaminated at or above MCLs to ensure a safe supply of water. EPA also provided operation and maintenance of these systems, as well as the three POET systems installed by homeowners prior to EPA's involvement at the Site. As of June 2001, IBM assumed responsibility for operation and maintenance of the POET systems at the Site. In July 2001, IBM offered to install POET systems in homes that were "threatened" or adjacent to homes with contaminated wells. Since July 2001, 45 additional POET systems have been installed in affected homes. To date, there are currently 105 POET systems installed at affected residences in the Shenandoah Road area. IBM and its contractors are proceeding with construction of the alternate water supply. To date, under the first contract, the majority of the water main transmission line has been installed. Subsequent construction activities include contracts for the Shenandoah Road distribution line, the private road distribution lines, the water storage tank and the homeowner connections. EPA anticipates completion of the water supply system sometime in mid-2008.

			investigation. Vapor intrusion is also being investigated as part of the RI/FS phase. EPA has conducted indoor air sampling and subslab sampling at a number of the residences in the Shenandoah Road area that are affected by groundwater contamination, namely PCE and, to a lesser extent, TCE.	

HAZARDOUS SUBSTANCES, POLLUTANTS AND CONTAMINANTS

The following substances are prominent at the Hudson Valley site this hearing will focus on, Hopewell Precision:

TRICHLOROETHYLENE ("TCE")

Trichloroethylene ("TCE") is a nonflammable colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE is not thought to occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical.

Exposure can occur by breathing air in and around the home which has been contaminated with TCE vapors from contaminated shower water or household products such as spot removers and typewriter correction fluid. Additionally, one can be exposed through drinking, swimming, or showering in water that has been contaminated; through contact with contaminated soil, such as near a hazardous waste site; and through contact with skin or breathing contaminated air while manufacturing TCE or using it at work to wash pain or grease from skin or equipment.

Breathing small amounts of TCE may cause headaches, lung irritation, dizziness, poor coordination, and difficulty breathing. Breathing large amounts may cause impaired heart function, unconsciousness, and death. Breathing TCE for long periods of time may cause nerve, kidney, and liver damage. In addition, drinking small amounts of TCE for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear. Drinking large amounts of TCE may cause nausea, liver damage, unconsciousness, impaired heart function, or death. Skin contact for short periods may cause skin rashes.

Some studies with mice and rats have suggested that high levels of TCE may cause liver, kidney, or lung cancer. Some studies of people exposed over long periods to high levels of TCE in drinking water or in workplace air have found evidence of increased cancer. Although there are some concerns about the studies of people who were exposed to TCE, some of the effects found in humans were similar to effects in animals.

In its Ninth Report on Carcinogens, the National Toxicology Program determined that TCE is "reasonably anticipated to be a human carcinogen." The International Agency for Research on Cancer has determined that TCE is "probably carcinogenic to humans."

1,1,1-TRICHLOROETHANE ("TCA")

1,1,1-Trichloroethane ("TCA") is a synthetic chemical that does not occur naturally in the environment. No TCA is supposed to be manufactured for domestic use in the United States after January 1, 2002 because it affects the ozone layer. TCA had many industrial and household uses, including use as a solvent to dissolve other substances, such as glue and paints; to remove grease and oil from manufactured metal parts; and as an ingredient of household products such as spot cleaners, glues, and aerosol sprays.

Exposure can occur by breathing TCA in contaminated outdoor and indoor air. Because TCA was used to frequently in home and office products, one is likely to be exposed to higher levels indoors than outdoors or near hazardous waste sites. In the workplace, one can be exposed while using some metal degreasing agents, paints, glues, and cleaning products. Additionally, exposure can occur through ingesting contaminated drinking water and food.

Breathing air containing high levels of TCA for a short period of time can cause dizziness, lightheadedness, and possible loss of coordination. These effects rapidly disappear after breathing contaminated air has ceased. Breathing contaminated air at much higher levels, one can become unconscious, blood pressure may decrease, and the heart may stop beating. Whether breathing low levels of TCA for a long time causes harmful effects is unknown. Studies in animals show that breathing air that contains very high levels of TCA damages the breathing passages and causes mild effects in the liver, in addition to affecting the nervous system. There are no studies in humans that determine whether eating food or drinking water contaminated with TCA could harm health. Placing large amounts of TCA in the stomachs of animals has caused effects on the nervous system, mild liver damage, unconsciousness, and even death. If human skin contacts TCA, one may feel irritation. Studies in animals suggest that repeated exposure of the skin might affect the liver and that very large amounts may cause death. These effects occurred only when evaporation was prevented.

Available information does not indicate that TCA causes cancer. The International Agency for Research on Cancer and the EPA has determined that TCA is not classifiable as to its carcinogenicity in humans.

Children exposed to large amounts of TCA probably would be affected in the same manner as adults. In animals, it has been shown that TCA can pass from the mother's blood into a fetus. When pregnant mice were exposed to high levels of TCA in the air, their babies developed more slowly than normal and had some behavioral problems. However, whether similar effects occur in humans has not been demonstrated.

ADDITIONAL NOTES

H.R. 5527, the "TCE Reduction Act of 2008", was introduced in the 110th Congress. This bill seeks to amend the Safe Drinking Water Act to protect the health of susceptible populations, including pregnant women, infants, and children, by requiring a health advisory, drinking water standard, and reference concentration for TCE vapor intrusion, and for other purposes. H.R. 5527 has been referred to the House Committee on Energy and Commerce, Subcommittee on Environment and Hazardous Materials. The bill was not referred to the Committee on Transportation and Infrastructure.