

The RT Review

The Latest on Environmental Issues From Your Solution-Oriented Environmental Services Firm

• Environmental Engineers & Scientists • Geologists • Remedial Contractors



RIVERWALK AT ROYERSFORD PROJECT WINS AWARD

In another example of an award winning Land Recycling project, the Riverwalk at Royersford residential redevelopment project took home the "Pinnacle Award" as the multi-family home of the year for under \$300,000, presented by the Home Builders Association of Bucks/Montgomery counties. The award winning redevelopment is at the site of the former Anchor Glass Works, and Clover Lamp/Atoll properties, where historical fill and tank releases were addressed by RT on behalf of the redevelopers. Solvent impacted groundwater was present on a portion of the site, and vapor barriers were incorporated into the construction during redevelopment where needed.

The property is right on the Schuylkill River, where residents will enjoy exciting views, as beautiful as they come in Pennsylvania. Grainor Price Homes was RT's client for the project, and Barton Partners was the project architect. Cathy Ward, Esq. of Stradley Ronan served as Environmental Counsel. As redevelopment of the site has reached a point of substantial completion, Act 2 Final Reports have been submitted to the Pennsylvania Department of Environmental Protection and are under review.

Craig Herr, P.G. of RT managed the Act 2 Land Recycling Project at this site. Craig can be reached at (610) 265-1510 Ext. 15, or at: cherr@rtenv.com.

RT'S PRESIDENT MAKES PRESENTATION ON CLEAN FILL IN MINNESOTA

Gary Brown, RT's President, in April made a presentation at a seminar in Minneapolis/St. Paul on the Pennsylvania Department of Environmental Protection Clean Fill Policy. Minnesota's Brownfields

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LANSDALE'S STATION SQUARE SITE RECEIVES ACT 2 CLEANUP LIABILITY PROTECTION

Dewey Commercial's award winning Station Square redevelopment site has received Act 2 cleanup liability protection, for the soil media. Although impacted groundwater at the site and surrounding area is being addressed as part of the North Penn Superfund site, Dewey Commercial retained RT to "upgrade" non-residential Act 2 cleanup liability protection when residential redevelopment of the site was planned. RT worked closely during the redevelopment process with Brian Bussa of the Ford Motor Company, and with Mr. Tom Cinti of the US Environmental Protection Agency to make sure that any remaining areas of concern at the soil media were addressed prior to actual redevelopment as it occurred in stages at the site. Area of concern delineation was completed prior to redevelopment, and EPA concurred with the removal activities as the project proceeded.

Dewey desired to receive Act 2 cleanup liability protection for soils at the site, and a new uniform Environmental Covenants Act style Deed Notice is being placed at the site. To fully protect residents, vapor

barriers were installed in each individual building. Additionally, although not required, EPA requested that five random soil samples be taken at the completion of redevelopment as a check, and all samples were found to be below PADEP's most stringent residential standards.

In addition to winning a prestigious Montgomery award, Station Square site redevelopment has been hailed at a large number of regional real estate and national redevelopment journals as a model of "smart growth". The site is located adjacent to a SEPTA Regional Rail line station, and provides very attractive housing for many employees in Montgomery County's pharmaceutical research and production facilities. Although the overall project took a substantial number of years to complete, the expert level management of redevelopment by Tony Lordi and Charles Elliott of Dewey Commercial made sure that all project elements were carefully managed resulted in an award winning redevelopment project of which everyone can be proud.

Although Act 2 cleanup liability protection for the soil media was not a regulatory requirement, as RT has found again and again, the availability of statutory cleanup liability protection that runs with the land, is an important and timely incentive that redevelopers want, as final proof that redevelopment has been properly completed from an environmental standpoint. RT appreciates the opportunity to work with Dewey Commercial on this project. Also participating on the Station Square project with RT were Barton Partners (Architects) and Kermit Rader, Esq. of Wolf Block (Environmental Counsel).

SOUTH JERSEY'S NEWEST NEIGHBOR - A BABY EAGLE!



Photo courtesy of Mike Hogan

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RT'S PRESIDENT MAKEPRESENTATION ON CLEAN FILL IN MINNESOTA

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program continues to be developed on an ongoing basis, but the question of what contaminants can be in soils coming from Brownfields redevelopment sites, had not been established firmly in Minnesota by policy, law or regulation.

The presentation by Mr. Brown covered how the PA Clean Fill Policy was developed, and, there was a lot of interest on how the Clean Fill Policy was integrated to Pennsylvania's award winning Land Recycling Program. Examples of projects where Clean Fill Policy and Brownfields program integration were highlighted at the seminar, including:

- The Wachovia Center/Navy Yard project
- The Wawa/Hilltown Township project

- The Chester generating station/Barry Bridge Park project (which is now proposed to be part of the new soccer stadium site).

The incentive of seeking the Act 2 Liability Release was the subject of considerable interest, and Gary Brown, in his presentation, cited the direct involvement of DEP Secretary Katie McGinty in coming up with a workable Clean Fill Policy which has found to be both acceptable to the regulatory community, and, to work exceptionally well with the Act 2 Land Recycling Program. If you'd like a copy of the Minnesota Brownfield seminar Power Point presentation made by Mr. Brown, forward an e-mail to: gbrown@rtenv.com

RT STAFF AND PROJECT NEWS

As of late May, RT's staff remains busy, principally at Brownfields redevelopment sites. These include former industrial facilities, service stations, and unclosed landfills, throughout the region. Work for a major national pharmacy retail chain also remains strong, and, building services are expanding which is expected to continue throughout the next several years, as lead paint renovations become regulated as a result of recent EPA final rulemaking.

Josh Hagadorn and Gary Brown are hard at work on a Contingency Plan at a pharmaceutical services organization in North-central Pennsylvania. Contingency Plans are also being prepared for three York County, PA facilities. Josh and Gary as well as Walter Hungarter are also overseeing closure of a former industrial wastewater system at major industrial manufacturing facility in York, PA, which is undergoing Brownfields redevelopment.

Dominic Marino and Robert McKenzie were overseeing ACM work in South Philadelphia, where a former defense facility is being redeveloped into commercial office space.

Mark Cefalo, Larry Bily and Walter Hungarter were evaluating large scale remedial options for a PCB impacted former auto parts stamping facility in Philadelphia. Work at that site may continue through the summer.

Justin Lauterbach is hard at work on a Wilmington, DE redevelopment site, where a new pharmacy retail store is planned in the downtown area. Craig Herr and Tom Donovan were evaluating two dry cleaner facilities, where releases were found as a result of due diligence activi-

ties. Justin Lauterbach is evaluating a similar situation at a site in Camden County, NJ.

Service station releases are also continuing to play a continuing part of our environmental practice. At a North Jersey site, we are completing oversight at a station with a persistent benzene groundwater impact situation. Remediation is also scheduled to be undertaken at two Cumberland County sites, one of which was a service station, and one of which was a petroleum distribution facility. Enhanced product recovery activities have proven successful using state of the art oil recovery technology at other sites in Jersey City and Vineland, as well. Justin Lauterbach is in charge of work at these sites.

Tri-State Realtors, who represent commercial and industrial realtors throughout the region, sponsors continuing education training. During the late winter and early spring, Gary Brown completed continuing education training on environmental due diligence to hundreds of Realtors, at Philadelphia and Valley Forge, PA locations. Although the real estate market is unquestionably tightening, Philadelphia's market, on average, is much better, than much of the rest of the United States. Initiatives in New Jersey and Pennsylvania to prevent "sprawl", and promote "smart growth", continue to make Brownfields redevelopment strong.

We at RT Environmental Services, Inc. continue to appreciate the opportunities you give to be of service, and look forward to continue serving you in the future.

-Gary R. Brown

OHIO COUPLE AWARDED \$2.2 MILLION IN COMPENSATORY DAMAGES IN MOLD CASE

In Ohio, where homebuyers may now be armed with the Ohio Consumer Practices Act – an unfair and deceptive practices law – one family whose home was invaded by mold has reaped significant financial awards from the neglect of a builder.

In 2006, Roman and Jennifer Cosner of Reynoldsburg, Ohio sued builder Maronda Homes because, as reported by the Columbus Dispatch, “[Maronda] sold them a defective house... and didn’t correct the problems.” Those problems, among “other structural problems,” included a defective foundation, an under-sized heating and air conditioning system, leaking plumbing and buckling roof shingles...which allowed moisture into the structure and caused mold to grow... on basement walls, within the heating and air-conditioning system and in subfloor and carpeting throughout the house.”

The Cosners’ problems began even before they moved in, as reported by Columbus Local News. Jennifer was assured a carpet stain “was a soda pop stain.” But the spot returned in rainy weather and, ultimately, led to Jennifer finding “water squishing between her toes when she walked on the carpet.” Visual inspections “found [mold] growing under-

neath the carpet in the dining room and a bedroom...A hole was also cut on the right side of the residence’s stucco exterior and again, mold was found.” The couple’s son, Roman Jr., began to display symptoms of mold allergy.

The family put in a warranty claim with Maronda and were told to move into a hotel courtesy of the company until repairs could be made. Maronda, though, fought the Cosners throughout the process, going so far as to seek a gag order to have the couple remove critical signs from their property and not speak about the issue with others. According to a May 18, 2006 transcript from NBC 4 in Columbus, the company was chastised by the judge and Jennifer Cosner was able to point out mold in the house’s ventilation and basement, an assessment of which revealed “five different molds.”

“[Maronda] said they’d cover our expenses,” Cosner told NBC 4’s Nancy Burton. “They have not. Now they’re refusing to cover the hotel...They kept saying they’d fix the problems, but it’s been 13 months and nothing’s been fixed.” At the time, only the hole in the stucco exterior had been repaired.

Shortly thereafter, the Cosners sued based on the Consumer Practices Act,

which states, “No supplier shall commit an unfair or deceptive act or practice in connection with a consumer transaction” and defines “deceptive” in part as, “That the subject of a consumer transaction is of a particular standard, quality, grade, style, prescription or model, if it is not.”

On February 19, the Franklin County Common Pleas jury awarded the couple \$731,586 in compensatory damages and \$1 million in punitive damages. But because of the Act, “compensatory damages will be tripled to nearly \$2.2 million,” according to the Dispatch. Additionally, “because jurors ruled that Maronda acted knowingly,” the Cosners will also be compensated for their attorney’s fees, which will be determined after a March 31 hearing. Dan Mordarski, one of the attorneys who won the case, said the Ohio law typically applies to contracts for future services, but that the trial judge found that it applied in this case because of the existing warranty to fix problems with the house. He added that the Ohio law is modeled on a uniform consumer protection statute and that several other states have similar laws.

(By Jonathan Miller – Indoor Environment CONNECTIONS 4/2008)

BILL TO PROMOTE 75% COST REIMBURSEMENT AT PENNSYLVANIA’S BROWNFIELD SITES ADVANCES

The legislative committee of the Pennsylvania Chapter of the National Brownfields Association has been assisting members of the General Assembly to gather information for legislation which would set up a PA 75% cost reimbursement program for Brownfield sites, similar to that now in effect in New Jersey. Senate Bill 106.2 was introduced last fall, and is expected to be coming up for vote in the Pennsylvania Senate very soon. Information on the success of New Jersey’s Brownfields program was furnished to Pennsylvania legislators. In New Jersey, they have 107 redevelopment agreements entered into with redevelopers, and \$21,271,000 has been reimbursed to developers on 20 projects. The total reimbursement under the program under the agreement signed is \$526 million. In New Jersey, over \$139 million in new tax revenues was brought into the state on redevelopment projects from new business.

Of particular interest in New Jersey are closed municipal landfill sites, and such

leading national businesses including Home Depot and Hampton Inn & Suites, and other retailers have opened new facilities on Brownfield sites. We will keep you up to date on this proposed legislation in future editions of the RT Review.

If PA adopts the 75% reimbursement program, there could be a huge surge in redevelopment at the Brownfield sites. This program would help to make Brownfield sites which have been abandoned due to higher upfront capitol cost associated with redevelopment more attractive to developers. Portions of the redevelopment which can be justified as remediation could qualify for reimbursement. The reimbursement of those costs over the span of the project can offset the high upfront redevelopment cost which caused the site to be abandoned and overlooked for redevelopment. As more Brownfield sites are reconsidered for redevelopment, no more Greenfield properties could be preserved and spared from the push of development. The Program would have benefits for both the public health and welfare and the environment and we applaud our legislators for their efforts to make a successful Program in PA.

BEDBUG EPIDEMIC IN NEW YORK CITY

According to a Daily News article, a bedbug epidemic is present in New York City. The epidemic affects east-side luxury apartments, and other boroughs of New York City, including Brooklyn. A recent expose’ on national television showed that mattresses and other bedding materials are being picked up on the street and recycled, which are already impacted by bedbugs. Unfortunately, once present in a structure, the small, wingless insects move around on clothing, luggage, furniture, bookbags, or other objects. Once present in residential space, the space has to be cleared, and, heat applied over a period of time to kill the bedbugs present. Once a complaint is filed with the city, the city Department of Housing Preservation Development issues a citation, requiring landlords to get rid of the pests within 30 days. Persons purchasing bedding materials, given the expose’ on national television, are urged not to purchase any used bedding materials because of this situation.

(Excerpts from Daily News-12/30/07)

PA UPDATES

CONSUMPTIVE WATER USE MITIGATION FEE INCREASE PROPOSED BY SRBC

At its March 13 meeting in Bedford, the Susquehanna River Basin Commission (SRBC) authorized staff to release a proposal to increase its consumptive water use mitigation fee from \$0.14 per thousand gallons to \$0.28, effective January 1, 2009 and then to adjust the fee annually for inflation.

SRBC regulations require consumptive water users to mitigate for their consumptive use during times of designated low flows to protect downstream water users and the environment. The regulations identify several mitigation options, of which, payment of a mitigation fee is only one option. Although mitigation for consumptive water use is required by regulation, the project sponsor, not SRBC, decides which mitigation option to select. SRBC prefers project sponsors to select release of on-site storage and discontinuance of use because those methods provide the most direct and verifiable mitigation. For a vast majority of project sponsors, however, payment of the mitigation fee is the option selected because it may be the most viable and feasible for them or, in many cases, it is simply the easiest option.

For more information, go to : www.srbcc.net/programs/projreview.htm to download the notice of public hearing/public comment and an information sheet detailing the proposal.

EXELON SUPPORTS NEW SOLAR ENERGY FACILITY ON PHILADELPHIA BROWNFIELDS SITE

Exelon Generation Corporation has entered into a 20-year agreement to purchase the electricity generated from the Exelon-EPURON Solar Center to be constructed at the Navy Yard in Philadelphia. The facility will be developed and owned by EPURON LLC, a subsidiary of the world's largest solar integration company, Conergy AG. Conergy has its North American headquarters in Pennsylvania.

The purchase is part of 2007 power purchase agreement that also includes the electricity generated at the Exelon-EPURON Solar Center in Falls Township, Bucks County. The facility will feature between 6,000 and 8,000 solar panels on a tract of land north of the Aker shipyard, and will produce up to 1.4 million kilowatt hours of electricity by the first quarter of 2009, or enough to meet the energy requirements of as many as 200 homes.

At this output, emission levels of carbon dioxide and sulfur dioxide that directly contribute to pollution and acid rain will be reduced by the equivalent of planting 300 acres of mature trees and offsetting the impact of cars driving as many as 50 million miles.

The Navy Yard project represents as much as a \$12 million investment that will create approximately 40 construction jobs and 10 permanent jobs. Together with the Falls Township site, the aggregate project is the largest solar photovoltaic installation on the East Coast.

"With the cost of fossil fuels continuing to rise, renewable energy technologies like solar, wind,

and biomass are becoming increasingly attractive and cost-competitive," said Department of Environmental Protection Secretary Kathleen McGinty. "This innovative solar project will take idle land and turn it into an asset for the commonwealth by creating energy, jobs and a stable, reliable supply of electricity to serve our families and businesses."

(PA Environment Digest – 5/2/08)

SENATE COMMITTEE OKS BROWNFIELDS, COAL BED METHANE, ALLEGHENY FOREST BILLS

The Senate Environmental Resources and Energy Committee in May approved legislation encouraging the redevelopment of Brownfield sites, setting up a board to resolve coal bed methane rights disputes and on the Allegheny National Forest.

Senate Bill 1330 (D. White-R-Indiana) establishes a process to resolve objections between a surface land owner and the mineral rights estate owner regarding the location of coal bed methane wells or access roads.

The legislation was the product of a process initiated after the Committee held a public hearing on the subject last year. Under the bill, a well operator intending to drill or construct an access road must provide written notification to the surface owner. The notifications must advise the surface owner of the right to file objections with a Coal Bed Methane Review Board, which is established by the bill. The Board will work with the surface owner and well operator and attempt to find common ground on the location of the well and accompanying access roads.

Senate Bill 1062 (Wonderling-R-Montgomery) is designed to encourage the redevelopment of contaminated property known as "Brownfield sites." The bill authorizes the state Secretary of Environmental Protection to enter into redevelopment agreements with developers who remediate Brownfield sites, with developers eligible to receive a reimbursement of up to 75 percent of the remediation costs.

Senate Resolution 294 (M.J. White-R-Venango) addresses a forest management plan adopted by the Allegheny National Forest in February. The plan imposes new restrictions on the development of mineral rights underneath the forest. More than 90 percent of the minerals underneath the forest are privately held, and were retained when the surface was sold to create the forest.

Senate Resolution 294 urges the federal government to re-evaluate the plan, and reaffirms that when the Commonwealth allowed land to be acquired to create the Allegheny National Forest it did not confer any authority to the U.S. government to diminish the Commonwealth's property rights or the rights of private property owners. A similar House Resolution 693 was passed the House in April.

(PA Environmental Digest-5/5/08)

DEP SECRETARY SAYS FUNDING AVAILABLE TO CLEANUP LEAKING UNDERGROUND HEATING OIL TANKS

With the end of the state's 2007-08 fiscal year

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approaching, Department of Environmental Protection (DEP) Secretary Kathleen A. McGinty said that owners of leaking underground heating oil tanks have time to take advantage of a state grant program that can help them pay for corrective actions.

"The costs of cleaning up a leaking underground heating oil tank can be a substantial burden on homeowners and small businesses," said McGinty. "Anyone with a leaking underground heating oil tank should know that help is available from the Commonwealth. Pennsylvania and in-state businesses can take advantage of this opportunity and begin a cleanup as soon as possible."

Grants are available through the underground heating oil tank cleanup reimbursement program for those who have underground heating oil tanks that have experienced a leak anytime since Jan. 30, 1998. The tanks must have a capacity of 3,000 gallons or less and be used to store heating oil that is consumed where it is stored. The reimbursement is limited to the actual costs of corrective action or \$4,000, whichever is less. A \$1,000 deductible must first be paid by the tank owner. The reimbursement and deductible apply on a per tank basis.

Corrective action costs that are eligible for reimbursement include excavating, emptying, cleaning, removing, transporting and disposing of a leaking storage tank; excavating contaminated soil; transporting and disposing wastes; and restoring disturbed or contaminated areas by backfilling, grading and re-vegetating. The costs associated with removing underground storage tanks that have not leaked or repairing above-ground heating oil tanks – including those located in basements or cellars – are not eligible for reimbursement. For more information about the underground heating oil tank cleanup reimbursement program, visit:

www.depweb.state.pa.us keyword: storage tank cleanup, or e-mail: tankcleanup@state.pa.us.

(PADEP – 4/2/08)

DEP LAUNCHES CAMPAIGN TO IMPROVE CONVENIENCE OF CFL RECYCLING – RECYCLING CONTAINERS TO BE PLACED IN MUNICIPAL BUILDINGS, BUSINESSES, COMMUNITY ORGANIZATIONS ACROSS PA

Compact fluorescent light bulbs can save up to 75 percent of the energy used by traditional light bulbs, said Environmental Protection Secretary Kathleen A. McGinty, but a lack of options on where to recycle the bulbs may make some consumers reluctant to adopt the increasingly popular technology.

To help spur the use of compact fluorescent

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light bulbs, or CFLs, and make it easier for the public to recycle the swirly tubed bulbs, DEP is providing receptacles to municipalities, small businesses and community organizations across the state hoping the experience will lead participants to continue with their own programs.

"If all of the households in Pennsylvania changed just one incandescent light bulb to an ENERGY STAR-qualified CFL, consumers could save \$25.5 million annually on household electric bills and prevent nearly 382 millions pounds of greenhouse gas emissions each year," said McGinty. "That is the power of energy efficiency, and we need to encourage people to take advantage of that power by adopting these safe and readily available technologies as soon as possible.

Compact fluorescent light bulbs sales have increased nationwide, but some consumers are

hesitant to purchase the energy efficient bulbs because they are not sure how to dispose of them properly. Pennsylvania encourages consumers to recycle CFLs whenever possible, and in order to make recycling more convenient and accessible, DEP has launched a recycling campaign in partnership with local governments across the state.

The Department is partnering with 43 counties, townships, environmental groups and small businesses statewide in setting up CFL collection programs.

More than 110 containers were purchased from Pennsylvania firms AERC Recycling, based in Allentown, and Hellertown, Northampton County-based, Bethlehem Apparatus Company. Both companies shipped the receptacles directly to the participants for use in conjunction with Earth Day and other hazardous household waste

collection events. The AERC containers will hold 100-150 bulbs, and the Bethlehem Apparatus containers will hold slightly less than 100.

Once the containers are filled, participants will ship the receptacles back to AERC or Bethlehem Apparatus for the physical recycling.

DEP invited counties, municipal governments, environmental groups and other organizations to host CFL recycling containers in publicly accessible buildings. To recycle a bulb, a consumer simply needs to hand it over to a trained employee, who slides it into the container.

McGinty said the state is working to identify other potential partners in order to make recycling a compact fluorescent light bulb as easy as it is to buy one.

(PADEP – 4/4/08)

TECHNOLOGY UPDATES

ANTARCTIC WATERS YIELD BIG SURPRISES IN MARINE LIFE

Scientists who conducted the most comprehensive survey to date of New Zealand's Antarctic waters were surprised by the size of some specimens found, including jellyfish with 12-foot tentacles and 2-foot-wide starfish. A 2,000 mile journey through the Ross Sea that ended in March also has potentially turned up several new species, including as many as eight new mollusks.

The finds must still be reviewed by experts to determine if they are in fact new, said Stu Hanchet, a fisheries scientist at New Zealand's National Institute of Water and Atmospheric Research. But beyond the discovery of new species, scientists said the survey, the most comprehensive to date in the Ross Sea, turned up other surprises.

Hanchet singled out the discovery of "fields" of sea lilies that stretched for hundreds of yards across the ocean floor. "Some of these big meadows of sea lilies I don't think anybody has seen before," Hanchet said. Previously, only small-scale scientific samplings have been staged in the Ross Sea. The survey was part of the International Polar Year program involving 23 countries in 11 voyages to survey marine life and habitats around Antarctica.

The program hopes to set benchmarks for determining the effects of global warming on Antarctica, researchers said. Large sea spiders, jellyfish with 12-foot tentacles, huge sea snails and starfish the size of big food platters were found during a 50-day voyage, marine scientist Don Robertson said. Cold temperatures, a small number of predators, high levels of oxygen in the sea water and even longevity could explain the size of some specimens, said Robertson, a scientist with NIWA. Robertson added that of the 30,000 specimens collected, hundreds might turn out to be new species.

(Ray Lilley, Associated Press) (Star Ledger-3/22/08)

A NEW BUSINESS OF POLLUTION

What's the price of pollution? Soon, the greenhouse gases that big companies produce may be priced, sold and traded just like shares of stock,

creating a whole new industry in the United States that could dramatically affect the national economy.

Building on current laws addressing acid rain and smog, Congress as early as this summer could vote on a national "cap-and-trade" system that would limit carbon emissions by big companies. Under such systems, the amount of allowable gases from each producer is capped, and those who produce more or less can buy or sell one another's carbon "credits".

The next U.S. President will likely support such a plan: All of the major candidates say they back a carbon cap-and-trade system. Some parts of the country are not waiting on Washington. In the Northeast, power plants in 10 states will face regional carbon cap-and-trade rules beginning next year. In California, a more extensive system could affect virtually all businesses starting in 2012. Other states are watching California closely. Europe already has an extensive carbon cap-and-trade market that is now being expanded.

The U.S. Chamber of Commerce contends that if the America's Climate Security Act offered by Senators Joseph Lieberman (I, Connecticut) and John Warner (R., Virginia) becomes law, 3.4 million Americans could lose their jobs, and the gross domestic product would decline \$1 trillion. Even environmental groups have doubts about cap-and-trade. Some worry that letting companies buy carbon credits will let them delay reducing their own emissions.

(Bob Keefe, Cox News Service) (Philadelphia Inquirer – 3/08)

BUILDING VOC EXPOSURE FROM UNEXPECTED SOURCES

Achieving and maintaining good indoor environmental quality is a goal increasingly held by property owners and managers, HVAC systems are installed, filters are changed, ducts are cleaned, vapor barriers and insulation installed. Volatile organic compounds are kept at a minimum. Air cleaners are introduced to sweep out microbes, dust, particles and spores, and diligent cleaning prevents the growth of molds and bacteria that can affect health. Detectors and specialized systems are put in place to eliminate gaseous

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risks like carbon monoxide and radon. Ironically, for all that, a building's problems may just be beginning.

Previously unknown, or unconsidered, IEQ issues are discovered with regularity, including a recent emphasis on volatile organic compounds. But while reducing chemical components and fragrances is a first step, VOC's have myriad sources, not all of which are widely known. Atmospheric ozone and cleaning products are among the key VOC contributors missed by many.

OUTDOOR OZONE

Since the development of consumer concern for the emission of ozone by air-purifying devices and their banishment from the California marketplace by the state Air Resources Board [See IE Connections, November 2007], ozone originating indoors has decreased as a risk factor and may in the near future be all but eradicated. But while the elimination of the gas's indoor causes removes one key detriment to good IEQ, another cause of indoor ozone, and the VOCs it helps create, has been largely ignored.

According to a report by a team of researchers at the U.S. Department of Energy's Lawrence Berkeley National Laboratory, "Outdoor Ozone and Building-Related Symptoms in the BASE Study," increased outdoor concentrations of ozone correlate to sick building syndrome, the set of mysterious symptoms-including fatigue, headache and irritation of the eyes and respiratory tract-that improve after a person leaves the affected building.

Analysis showed linear increases of upper respiratory symptoms with comparative increases in outdoor ozone concentrations. Ozone also correlated with indoor concentrations of aldehydes, including carcinogenic formaldehyde, and organ-

TECHNOLOGY UPDATES *(Continued)*

ic acids known to be sensory irritants.

But, as the team demonstrated, filtration may inadvertently lead to even higher VOC concentrations if outdoor ozone concentrations are high. A separate report by the Berkeley Lab team, "Air Filter Materials, Outdoor Ozone and Building-Related Syndrome in the BASE Study," showed that polyester and other synthetic-material air filters correlate strongly to health symptoms consistent with sick building syndrome if outdoor ozone concentrations are high. Conversely, buildings with fiberglass or natural-material filters reported fewer symptoms in high-ozone environments, as did synthetic filters in low-ozone environments.

"The study estimated that removing both risk factors—higher ozone in outdoor air and polyester/synthetic filters—could reduce [building-related symptoms] by 26 to 62 percent," Apte said. He cautioned, though, that further verification is needed in both studies. "This research is a first step and it needs to be replicated in other studies with a statistical design specifically to address the ozone-symptom association and with accurate information on filters and ozone levels." Both papers will be published in the journal *Indoor Air*.

EPA-FUNDED STUDY FINDS LONG-TERM MTBE WATER CONTAMINATION IN NEW YORK

An EPA-funded study finds that the fuel additive methyl tertiary butyl ether (MTBE) – labeled a "likely" carcinogen in a draft agency risk assessment – remains in the groundwater in two Long Island, NY, counties despite the fact that the counties never used MTBE-blended gasoline and that the state outlawed its use four years. The findings are prompting New York officials to call for expanded testing and are raising new concerns about the long-term impact of MTBE contamination. Additionally, the study may be relevant to ongoing litigation against the MTBE industry over groundwater contamination.

New York's Department of Environmental Conservation (DEC) released the study, funded through an EPA grant, in late February, concluding that MTBE "is still a major contaminant of concern in groundwater" and says more monitoring is crucial to test for the presence of the additive elsewhere in the state. DEC examined 52 retail gasoline stations in Nassau and Suffolk counties on Long Island, where MTBE was never blended into gasoline, and found that as much as 53 percent of the groundwater sampled exceeded the state's 10 micrograms-per-liter (ug/l) drinking water and groundwater standard. The study also recommends that the investigation be expanded to other counties because it found MTBE in groundwater in counties that did not report using MTBE-blended gasoline. MTBE, an oxygenate that was widely added to fuel to reduce emissions, also had the unintended consequence of contaminating groundwater supplies around the country. It can cause drinking water to have an unpleasant taste and smell, though the health effects are the subject of heated debate.

In 2005, Inside EPA reported that EPA completed a draft MTBE risk assessment that recommended the chemical be labeled a "likely" carcinogen, based on findings that linked kidney and lymph node tumors to MTBE exposure. EPA expected to finalize the risk assessment in 2009. Meanwhile,

DEC conducted its investigation between December 2002 and December 2006 to better define the extent of MTBE contamination stemming from previously unidentified or unreported MTBE-blended gasoline releases throughout the aquifer system that serves Long Island.

Long Island's aquifer system is the sole source of drinking water for more than 2.7 million residents in Nassau and Suffolk counties, with 95 percent of residents receiving their water from more than 900 public water supply wells, and the rest supplied by more than 64,000 private wells. The counties' heavily reliance on the wells was a key reason DEC wanted to assess contamination of the water. The study found that MTBE exceeded the state's 10 ug/l drinking water and groundwater standard at 34 percent of the sites in Suffolk County and at 53 percent of the sites investigated in Nassau County.

Concentrations of the fuel additive in groundwater ranged from non-detected level to up to 240,000 ug/l in Nassau County and up to 63,000 ug/l in Suffolk County. "Based upon the extent of the groundwater impacts suggested by this report, it is evident that MTBE contamination is still a potential threat to source water for public water supply wells on Long Island," the report says. The report's conclusions highlight the long-term contamination impacts of MTBE, showing that the fuel additive remains in New York's waters and that it may continue to pose serious health and environmental risks despite the state outlawing use of MTBE four years ago.

As a result of the inspections, 33 petroleum releases were discovered that previously had not been reported. "Each of these releases represent potential sources of MTBE contamination that could impact drinking water supplies or other environmentally sensitive areas," the report says, adding that the new releases are now undergoing further investigation and remediation.

A DEC press release issued with the February 22 release of the analysis says that the additive has the ability to migrate with groundwater flow beyond an individual gas station site's boundaries. Therefore, "the potential for MTBE contamination is more widespread than at specific locations such as gas stations." With approximately 1,100 gasoline stations on Long Island alone, the findings of the study "are potentially a small representation of the overall impact MTBE is having on the region, as well as other communities throughout New York," the press release says.

(By: Anthony Lacey – Superfund Report – 4/7/08)

EPA MOVES TO TIGHTEN BULB BREAKAGE GUIDE AFTER STATE PRESSURE

New guidelines from Maine's environment department on how consumers can reduce mercury exposure if they break compact fluorescent light bulbs (CFLs) containing the toxin are putting pressure on EPA to tighten its guidelines after the state conducted first-time exposure tests from bulb breakages that found mercury levels thousands of times higher than what is considered safe.

EPA has already revamped its guidelines somewhat, following a preliminary review of the Maine test, and the agency says it will conduct a further review of the state work and conduct its own CFL

exposure tests before determining what further action to take. The Maine Department of Environmental Protection (DEP) Feb. 25 released revised guidelines, contained in a report detailing its mercury exposure test results, which found high mercury levels could occur from the breakage of a single light bulb.

The issue of mercury in CFLs is a growing concern as the bulbs continue to be heavily promoted because of their energy efficiency, yet they pose a health hazard if they are broken or not properly disposed. The new Maine guidelines go well beyond any prior guidance by suggesting that households with infants, small children and pregnant women consider not using the bulbs "in situations where they could be easily broken" because of possible mercury exposure through breakage.

They also suggest that homeowners "consider removal of the area of carpet where the breakage occurred as a precaution," particularly if the breakage occurred in an area where infants or children play on the floor. EPA says an initial review of Maine's study on mercury exposure prompted the agency to update its own recommendations for dealing with broken CFLs, including the addition of explicit instructions for different types of flooring along with the recommendation that the broken bulb be placed in a glass jar with a metal lid.

Previous EPA recommendations included only putting the debris in a sealed plastic bag, an approach Maine found did little to control mercury, as well as wiping the area with a damp paper towel and opening a window if weather permits. But EPA's revised guidelines do not suggest that anyone curtail use of the bulbs over breakage concerns.

An EPA spokeswoman says that pending completion of a full review of the study, "EPA will determine whether additional changes to the cleanup recommendations are warranted. The Agency plans to conduct its own study on CFLs after thorough review of the Maine study." The revised Maine guidelines are contained in a broad report, Maine Compact Fluorescent Light Study, that analyzes mercury released in 45 experimental trails involving different types of bulbs and flooring. "The most notable finding of the study was how variable the results can be depending on the type of lamp, level of ventilation and cleanup method," the report says.

The study did find high exposure levels in some cases, noting that mercury concentrations released from CFL bulbs often exceed the state's ambient air guideline of 300 nanograms per cubic meter (ng/m³) for a period of time, with readings as high as 100,000 ng/m³ from the breakage of a single bulb and that flooring surfaces, even after they are cleaned, can continue to emit mercury at greater than 50,000 ng/m³. The study also found that the best container to place broken CFLs is a glass jar with a sealable lid, whereas "double re-sealed polyethylene bags...did not appear to retard the migration of mercury adequately." EPA's revised guidelines advise the glass jar or the bag.

A Maine DEP source says the state still recommends use of CFLs with the caution that "people need to be very careful with them, just like they are with bleach and sharp knives."

(By: Dawn Reeves – Superfund Report – 3/10/08)

“It Was Only a Vacant Lot” Lawrence W. Bily, CHMM

Purchasing a vacant lot in a city still requires appropriate due diligence prior to the transaction. The author has personally dealt with the following issues during Phase I's at sites that were “vacant”:

A vacant lot that was used for parking was being investigated by a Geotechnical contractor when they struck a tank which was a filled in basement of a structure on the site. When the building had been demolished, the rubble was accumulated in the basement area, leveled, and then the vacant lot used for parking. Appropriate Phase I work would have revealed the potential of a basement in the building and/or the historic use of the building as a small production facility and possibly made the field crew aware of the need to conduct a ground penetrating radar (GPR) survey prior to the Geotechnical investigation. The resulting release from the tank was compounded by the fact that the oil contained polychlorinated biphenyls (PCBs). The resulting clean up was much more costly than would have been necessary had the appropriate Phase I due diligence work been conducted and the presence of the tank known in advance.

During Phase I due diligence, a vacant lot that had been the site of a factory turned out to be involved in a Superfund investigation. Because of legal issues regarding the Superfund investigation, files were not available even during an ordinary Freedom of Information Act (FOIA) request for EPA documents. The site is still undergoing review by the EPA as to Superfund status and future work.

A lot that was vacant was previously used for placement of fill from unknown offsite locations. The site was then used for illegal dumping until access to this site was restricted by concrete barriers. Sampling revealed that, fortunately in this case, no hazardous waste was brought onto the site in recent years. Previous placement of historic fill i.e., rubble, ash, debris, required that the site be entered into the Act 2 program.

As can be seen from these examples, vacant lots in urban areas always need appropriate due diligence for environmental concerns prior to any contemplated transactions.

RETROFITTING A RAIN GARDEN IN AN ARBORETUM HELPS CONTROL FLOODING IN LEXINGTON

The West Glendover Stormwater Improvement Project in Lexington, KY, is an unusual project that resulted from extraordinary cooperation on the part of all parties involved. They managed not only to cooperate to create a functional and attractive stormwater management solution but also to resolve concerns that were sometimes diametrically opposed.

Locating the stormwater project in an arboretum stopped flooding to nearby homes, enhanced the arboretum's collection of plants, and allowed the public to see a large-scale rain garden. The project resulted from several years of complaints by residents of the Glendover Road area about flooding in their streets and basements. When Lisa and Todd Mudd came home one day only to find their children's toys floating in a foot of water in their basement, they added their complaints to those of their neighbors.

When the extent of flooding was understood, a project for the area was added to the city's list of stormwater projects that awaited funding. In 2000, the West Glendover Stormwater Improvement Project was added to the city's official list of stormwater projects. By policy, projects have to wait on the list for two years before being started. This time lapses anyway because of lack of funding, because there are usually about 100 projects on the list.

In early 2005, the West Glendover Stormwater Improvement Project was funded by the Lexington-Fayette Urban Council of Governments (LFUCG) Council. Gregory Lubeck, an LFUCG engineer since 2002, was assigned to manage the project. Among his first actions was to issue a Request for Qualifications for design work from private engineering firms.

After evaluating alternatives, Lubeck felt that the logical approach was also the most cost-effective: Slow the flow of water by taking advantage of the nearby arboretum's location and natural features.

The arboretum is situated on land owned by the University of Kentucky (UK). The area was once the working farm for faculty and students in UK's College of Agriculture. Now it is the largest open space within the city limits and contains two watersheds. The arboretum, which occupies over 100 acres of the land, is funded jointly by UK and the LFUCG.

Stormwater naturally flows from northeast to southwest as it moves along the arboretum's rolling hills. Backyards of residents on Glendover Road end along the south to southwest border of the arboretum. Glendover Road slopes downhill, increasing stormwater flow for residents at the lower, western

end of the street.

But, while the solution seemed logical, the hardest part of the project “was getting everybody to agree that this was the solution, getting consensus,” Lubeck says. The major reason for the project's success was establishing the comfort level with the arboretum folks that this would work in with their master plan, that it wasn't just a hole for water, that it would have an artistic look,” he adds.

After a difficult construction period, the rain garden and wetlands are doing their job. Mr. James Lempke, the curator of native plants for the arboretum, made sure that construction was undertaken carefully. Now that the shrub layer and the tree layer are established, Lempke's goal is to have no erosion at the site. As sedges, rushes, and grasses begin to cover the bare patches of ground, their roots will stabilize the soil. Eventually they will form a dense ground cover, along with the wildflowers.

He looks forward to this summer (2008), when, with a full year of growth behind them, “Masses of wildflowers, [producing] a real ‘wow’ factor,” should bloom throughout the Mississippi Embayment. Even in the first summer after completion of the project, Lempke has noticed that the swamp milkweed has drawn more butterflies, including swallowtails and skippers, to the area. “You can see and hear more bird life over here than anywhere else in the arboretum,” he adds.

The idea that “wetlands are swamps, ugly mosquito-filled undesirable places, is a common misconception,” Lempke says. He hopes that this part of the arboretum “will show that wetlands are essential to cities, farms, nature. They have the ability to provide diverse life forms.” Bringing people into the environment and demonstrating that it is uniquely functional and beautiful, and that it's cared for, was planned for as part of the design. A major component of that design is the 280-linear foot boardwalk, or footbridge, that replaced a section of the arboretum's regular asphalt path.

Lempke, who has more than enough to do at the arboretum, would probably never have wished to become involved with a stormwater project. However, he sees both the need for such a project and the diverse interests of the parties involved. “I don't know how we bring together the contractor and the biologist. No matter how good their intentions are, [there are conflicts]. Our technology only takes us so far, and there is much demand for speed and efficiency. But Mother Nature has other requirements. We have to find ways for new technology to manipulate the land but not destroy the ability of the land to respond and heal. Given half a chance, Mother Nature will heal.

The final concept includes plantings of native species, a boardwalk, and a series of three water-storage features that are intended to detain stormwater flows up to the 25-year, 24-hour event. (That measurement is approximately 2 acre-feet or 5.1 inches of rainfall within 24 hours.) Two berms with rock spillway outcroppings were created to slow stormwater and function as shallow detention basins. Water that continues to flow will reach the largest water-storage feature, a southwest side-the lowest point-of the area.

Areas of native plants upslope of the three basins intercept sheet runoff and increase infiltration and evapotranspiration rates by virtue of their deep root systems. They reduce the overall amount of runoff reaching the basins. The native plants chosen by Lempke for the project fit into the arboretum's master plan. As part of the contract, the city government paid for the purchase, planting, and care of the plants, which was all done under Lempke's supervision. While the city government has an urban forester, arborists, and landscape employees, everyone involved felt that Lempke was best suited for this responsibility. The cost was approximately \$139,000.

Construction cost was approximately \$470,000. This figure included payment for approximately 1,800 cubic yards of excavation, 280 linear feet of recycled plastic boardwalk, 1,500 linear feet of 2-inch waterline, and 88 tons of gray bluegrass region limestone bulk rock.

The West Glendover Stormwater Improvement Project meets the EPA's stormwater guidelines for public education. As school children, recreational and fitness walkers, and other people tour the area, they learn about the problem of stormwater and an effective and aesthetic way to manage it. In its cost range division, the project won a Best of the Year 2007 award from the Kentucky chapter of the American Public Works Association.

(Margaret Buramen of Lexington, KY - Excerpted from Stormwater [3/4/08])

MANHEIM BOROUGH RETROFIT RAIN GARDEN ANNOUNCED

Here in PA, Manheim Borough is adding a rain garden at the end of a municipal storm sewer line along Chiques Creek. Funding for the former Raymark Industries lower mill Brownfields project has made this possible. Using a rain garden in a “retrofit” situation is a very positive stormwater management improvement step in PA. Look for more information on this project in a future edition of the *RT Review*.

FEDERAL REGULATORY UPDATES

REAL ESTATE DEVELOPERS MAY BE LIABLE FOR DISTURBANCE OF ONSITE CONTAMINANTS

A recent federal court decision from the Eastern District of California, *United States v. Honeywell International, Inc.*, 2008 WL 508503, highlights the importance of conducting environmental due diligence prior to purchasing or developing real estate; and is a bitter reminder of the liability and damages to which a developer can be subject by failing to protect its interests by conducting that due diligence. In *Honeywell*, a developer was found liable for clean-up costs related to arsenic contamination in soils that were moved and dispersed during the course of developing streets and homes on the subject site, despite the fact that the developer was unaware of that contamination at the time he purchased and developed the site.

Honeywell arose out of the United States' clean-up of arsenic above health-based standards at the Central Eureka Mine Superfund site ("the Site") in Amador County, California. Included as part of the Site was the subdivision of Vista Ray. Vista Ray was located adjacent to and north of a mound of mine tailings at Mesa de Oro. Those mine tailings were produced by the Central Eureka Mine and had tested positive for arsenic above health-based standards. According to unrefuted expert testimony in the case, from 1944 to 1989, erosion caused arsenic contamination to migrate from the Central Eureka Mine, through the Mesa de Oro mine tailings mound, and into the Vista Ray subdivision.

From 1978 to 1982, Vista Ray was owned by Charles Bruner ("Bruner"). During his ownership of Vista Ray, Bruner excavated and trenched the land for roads, underground utilities and finished lots. He also contracted with third-parties, including the City of Sutter Creek, for excavation in connection with the construction of streets, street lighting, sanitary sewers, water distribution pipes and the installation of other underground utilities. Ultimately, Bruner constructed 4 homes on 2 streets in the Vista Ray subdivision. In 1995, the United States Environmental Protection Agency ("EPA") tested soils in Vista Ray and found arsenic above health-standards. EPA contracted with third parties to excavate, remove and replace the contaminated soil in Vista Ray.

Following the remedial activities, the United States brought an action against *Honeywell* and other defendants, seeking the costs EPA incurred in remediating the Central Eureka Mine Superfund site under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). The costs sought included the cost of removing and replacing the soil in Vista Ray, as well as costs for air quality monitoring and health assessments for persons living in Vista Ray. *Honeywell* and its co-defendants filed a third-party action for CERCLA contribution against 37 parties, including former Vista Ray owner/developer Bruner. After the Defendants/third-party plaintiffs, and 36 of the third-party defendants reached a settlement with the United States, the third-party plaintiffs sought summary judgment against Bruner, on the grounds that he was liable for contribution to the

clean-up costs pursuant to CERCLA. Bruner asserted that he qualified as an "innocent landowner," which provided him a complete defense to CERCLA liability. The trial court agreed with the third-party plaintiffs, and found Bruner liable for CERCLA contribution in relation to the EPA's clean-up costs at the Central Eureka Mine site.

The trial court held that Bruner was liable under CERCLA to contribute to the reimbursement of EPA for clean-up costs it incurred in relation to Vista Ray. Bruner argued that he was an "innocent landowner" and therefore not subject to CERCLA liability for EPA's clean-up costs. There were two grounds for Bruner's asserted innocent landowner defense: 1) the release of hazardous substances and resulting damages were caused solely by the acts or omissions of a third party, i.e., the mining operations at Central Eureka; and 2) he had purchased the property after the mining operations placed contamination on the Vista Ray site; and he did not know, or had no reason to know, of the presence of that contamination. The trial court found that Bruner failed to qualify as an innocent landowner under CERCLA. First, it found that the mining operations were not the sole cause of the contamination at Vista Ray. But rather, by actively grading and excavating his property, Bruner "agitated and thereby released" the soil contaminants, contributing to the contamination at Vista Ray.

With respect to Bruner's claim that he did not know, or had no reason to know, of the contamination that migrated to Vista Ray prior to his ownership, the trial court found that even if that were true, Bruner could not satisfy the remaining element necessary to establish that defense. Specifically, to get a release from liability on those grounds, the landowner "must not have himself . . . contributed to the release of any substance. Again, the trial court had already determined that by excavating and grading soils at Vista Ray, Bruner had "released" hazardous substances at the site, thereby defeating this innocent landowner defense. In sum, the trial court granted summary judgment to the third-party plaintiffs, finding Bruner liable under CERCLA for EPA's clean up costs; but denied third-party plaintiff's request for a specific dollar allocation to Bruner on the grounds that it needed a **more** complete record to make that allocation.

(Thomas Burns-Saul Ewing 3/5/08)

UPDATE ON ELECTRONIC HAZARDOUS WASTE MANIFEST

EPA announced on February 26 the availability of additional information on the electronic manifest (e-Manifest) project. EPA's Office of Solid Waste and Emergency Response (OSWER) reports that it has made significant progress on the e-Manifest project since the publication of the April 18, 2006, public notice, which announced and requested comment on the agency's intention to develop a centralized Web-based information technology (IT) system that would be hosted on EPA's IT architecture. However, a few issues raised in the comment period require further analysis by EPA, as it makes decisions concerning the e-Manifest system.

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EPA received strong support in response to the April 2006 public notice to establish a national Web-based system funded through user-fees. In addition, commenters generally supported EPA's position that use of e-Manifests should be at the election of the users rather than mandatory. However, some commenters expressed concern that an optional system would create dual paper and electronic systems. Furthermore, industry and state comments in response to EPA's position to allow confidential business information (CBI) claims for e-Manifests differed. Therefore, as explained in this notice, EPA is soliciting additional comment on EPA's position on these two issues. The agency remains committed to finalizing a federal regulation, once the necessary legislation is enacted, that will authorize the regulated community to use electronic manifests as the legal equivalent of paper manifests, and it will consider the comments received on this notice, as well as other comments received from previous actions, before it makes a final decision.

(Env. Tip of the Week-3/3/08)

EPA PROPOSES REDUCTION IN OZONE STANDARD

EPA has revised the standards for ozone and has proposed the most stringent 8-hour ozone standard ever, they announced March 12. EPA says that the agency based the changes on the most recent scientific evidence about the effects of ozone, the primary component of smog.

"America's air is cleaner today than it was a generation ago. By meeting the requirement of the Clean Air Act and strengthening the national standard for ozone, EPA is keeping our clean air progress moving forward," said EPA Administrator Stephen L. Johnson.

The new primary 8-hour standard is 0.075 parts per million (ppm) and the new secondary standard is set at a form and level identical to the primary standard. According to the Washington Post, EPA Staff recommended a secondary standard, which was rejected by the President. The previous primary and secondary standards were identical 8-hour standards, set at 0.08 ppm. Because ozone is measured out to three decimal places, the standard effectively became 0.084 ppm, and areas with ozone levels as high as 0.084 ppm were considered as meeting the 0.08 ppm standard, because of rounding.

Pennsylvania Department of Environmental Protection Secretary Kathleen A. McGinty said that the new ground level ozone standards ignore the recommendations of the agency's own Clean Air Scientific Advisory Committee, and consequently, do not go far enough in protecting human health and the environment. Pennsylvania has urged the EPA to adopt the committee's recommendations in setting the new acceptable levels for ozone. "I am disappointed the EPA

FEDERAL REGULATORY UPDATES (Continued)

administrator ignored the advice of his own scientific advisory committee in setting the new ozone level that is intended to protect people's health," said McGinty. "Sound science must be used in setting public policy, and that has not happened in this case. Unfortunately, this action is in keeping with the EPA's track record of ignoring science and making decisions based on politics."

The EPA's Clean Air Scientific Advisory Committee, which includes members from academia and private research institutions, recommended the standard be set between 60 and 70 ppb of ozone in order to protect human health. The federal agency today set the standard above that recommendation at 75 ppb. "Last fall, the commonwealth offered testimony before the EPA that the decision on new ozone standards should be based on scientific advisory committee's recommendations," said McGinty. "The federal Clean Air Act is clear that protecting the public's health must be the driving force in setting primary standards, but EPA has not adhered to that requirement." Pennsylvania and other states must monitor the air for ozone and other pollutants, and take steps to meet the EPA-set standards. Air containing ozone measured at 84 ppb meets the present standard.

EPA Administrator Johnson said, "The Clean Air Act is not a relic to be displayed in the Smithsonian, but a living document that must be modernized to continue realizing results. So while the standards I signed may be strict, we have a responsibility to overhaul and enhance the Clean Air Act to ensure it translates from paper promises into cleaner air."

Ozone can harm people's lungs, and EPA is particularly concerned about individuals with asthma or other lung diseases, as well as those who spend a lot of time outside, such as children. Ozone exposure can aggravate asthma, resulting in increased medication use and emergency room visits, and it can increase susceptibility to respiratory infections.

Ground-level ozone is not emitted directly into the air, but forms when emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) "cook" in the sun. Power plants, motor vehicle exhaust, industrial facilities, gasoline vapors and chemical solvents are the major human-made sources of these emissions.

EPA estimates that the final standards will yield health benefits valued between \$2 billion and \$19 billion. Those benefits include preventing cases of bronchitis, aggravated asthma, hospital and emergency room visits, nonfatal heart attacks and premature death, among others. EPA's Regulatory Impact analysis shows that benefits are likely greater than the cost of implementing the standards. Cost estimates range from \$7.6 billion to \$8.5 billion.

EPA selected the levels for the final standards after reviewing more than 1,700 peer-reviewed scientific studies about the effects of ozone on public health and welfare, and after considering advice from the agency's external scientific advisors and staff, along with public comment. EPA held five public hearings and received nearly 90,000 written comments.

As part of this action, EPA also has updated the

Air Quality Index (AQI) for ozone to reflect the change in the health standard. The AQI is EPA's color-coded tool for communicating daily air quality to the public.

(Env. Tip of the Week-3/17/08)

NEW LEAD-BASED PAINT REGULATIONS

On March 31, 2008, EPA issued a new final rule aimed at protecting children from lead-based paint hazards. The rule requires contractors and construction professionals that work in pre-1978 housing or child-occupied facilities to follow lead-safe work practice standards in places children frequent to reduce potential exposure to dangerous levels of lead.

This rule establishes requirements for training renovators, other renovation workers, and dust sampling technicians; for certifying renovators, dust sampling technicians, and renovation firms; for accrediting providers of renovation and dust sampling technician training; for renovation work practices; and for recordkeeping.

(Environmental Tip of the Week-4/14/08)

NEW AIR STANDARDS TO REDUCE LOCOMOTIVE, MARINE EMISSIONS

New tough emissions standards will slash pollution from locomotive and marine diesel engines by up to 90 percent, helping Americans to breathe cleaner air as soon as this year, the U.S. Environmental Protection Agency said on March 14.

"EPA is fitting another important piece into the clean diesel puzzle by cleaning emissions from our trains and boats," said EPA Administrator Stephen L. Johnson. "As more and more goods flow through our ports and railways, EPA is cutting diesel emissions at their source – keeping our nation on track toward a clean, healthy, productive tomorrow."

When fully implemented, these new standards will reduce soot or particulate matter (PM) by 90 percent or 27,000 tons and reduce nitrogen oxide emissions (NOx) by 80 percent or nearly 800,000 tons. The estimated annual health benefits are valued between \$8.4 billion and \$12 billion. When these older locomotive and marine engines reach the end of their useful life, and new engines enter into the nation's diesel fleet, the benefits of today's action will increase.

The Clean Diesel Locomotive and Marine program cuts emissions from all types of diesel locomotives, including line-haul, switch, and passenger rail, as well as from a wide range of marine sources, including ferries, tugboats, Great Lake freighters and all types of marine auxiliary engines.

For the first time ever, this rule requires remanufacturing standards for marine engines, reductions in engine idling, and the use of after-treatment technology that will further reduce diesel emissions. Phasing in tighter long-term standards for PM and NOx will begin in 2014 for marine diesel engines and in 2015 for locomotive engines. Advanced after-treatment technology will apply to both types of engines. The effective dates for NOx will be two years earlier from last year's proposal, bringing cleaner air sooner.

This rule complements the Clean Air Nonroad Diesel Rule and the Clean Air Diesel Truck and Bus Rule, currently under way nationwide.

For more information, visit www.epa.gov/otaq/locomotv.htm or www.epa.gov/otaq/marine.htm

(Environmental Protection-4/2/08)

EPA PROPOSES STRONGER AIR QUALITY STANDARDS FOR LEAD

EPA is taking steps toward revising the nation's air quality standards for lead for the first time in 30 years, proposing to dramatically strengthen the standards to reflect the latest science on lead and health.

"By tackling lead emissions, EPA is keeping America's clean air progress moving forward," said EPA Administrator Stephen L. Johnson. "With EPA's early May proposal, we can write the next chapter in America's clean air story."

The proposal recommends tightening the primary standard to protect public health by 80 to 93 percent. It would revise the existing standard of 1.5 micrograms per cubic meter of air to a level within the range of 0.10 to 0.30 micrograms per cubic meter. The agency is taking comment on alternative levels within a range from less than 0.10 to 0.50 micrograms per cubic meter.

Since 1980, emissions of lead to the air have dropped nearly 98 percent nationwide, largely the result of the agency's phase-out of lead in gasoline. And average levels of lead in the air are far below the level of the 1978 standard. Lead in the air today comes from a variety of sources, including smelters, iron and steel foundries, and general aviation gasoline. About 1,300 tons of lead are emitted to the air each year, according to EPA's most recent estimates.

Lead that is emitted into the air can be inhaled or, after it settles out of the air, can be ingested. Ingestion is the main route of human exposure. Once in the body, lead is rapidly absorbed into the bloodstream and can affect many organ systems.

EPA must issue a final decision on the lead standard by September 15, 2008. Details about the proposal and public hearing information can be found on: www.epa.gov/air/lead.

(EPA-5/1/08)

RAPANOS RULING, EPA GUIDANCE SLOWING BROWNFIELDS REDEVELOPMENT

The Supreme Court's fractured Rapanos ruling on the scope of the Clean Water Act's (CWA) jurisdiction, as well as subsequent EPA and U.S. Army Corps of Engineers guidance on how to interpret the ruling, is delaying redevelopment of Brownfields due to lingering uncertainty over whether CWA wetlands permits are needed at Brownfields sites that may have wet areas, industry attorneys and legal experts say.

Further complicating matters, initial analyses of potential Brownfields sites do not routinely include an assessment of wet areas on the property, because the ASTM standard that guides the analyses does not address wetlands, the sources explain. If it turns out a development may need a CWA section 404 permit, which governs dredg-

FEDERAL REGULATORY UPDATES (Continued)

ing and filling of wetlands, that possibility is not often discovered until late in the process, potentially scuttling key redevelopment efforts, the sources say.

The intersection of Brownfields and the high court's 2006 ruling in *Rapanos, et al. v. United States* was discussed at a March 14 session of an American Bar Association (ABA) conference in Keystone, CO. Attorneys and consultants there said Brownfields developers now need to take it upon themselves to look at potential wetlands issues upfront and be more cautious in determining whether their projects may be subject to CWA rules.

Consultant Louis Bridges said in his presentation to the ABA that the EPA/Corps *Rapanos* jurisdictional guidance "has only muddied the waters further and created turmoil between clients and contractors" of Brownfields.

He added, "As a consultant, the business risk issues of wetlands and endangered species associated with Brownfield redevelopment are all compounded by not only the *Rapanos* decisions but also by the new supplemental guidance." And he noted that the presence of wetlands and endangered species can be "fatal flaws" in any redevelopment deal.

One source says the ASTM standard's Brownfields analyses failure to include wetlands is "a problem because developers...don't want to spend additional money" on Phase I site assessments, and consultants do not routinely look at wetlands in order to keep projected costs down. "So what often happens is it's missed on the first go-around and the developer calculates the costs without wetlands. The whole ball starts rolling down the hill and then they find out there is a wetlands issue," the source says.

Prior to *Rapanos*, determining whether a Brownfield property contained a wetland was much more straightforward, the source adds. But following the ruling—where a plurality of the court, led by Justice Antonin Scalia, defined the water law's jurisdiction much more narrowly but that opinion was accompanied by a concurring opinion by Justice Anthony Kennedy and Scalia tests to determine the water law's jurisdiction.

"The problem that has caused...is now you have a client saying there's a more stringent (wetlands jurisdiction) standard, and can't I take advantage of that and go ahead and develop?" the source explains. But attorneys have to urge caution and determine which CWA jurisdiction test the federal court under which the project is being built is using.

A paper presented at the ABA event, written by Alexandra Dapolito Dunn of Pace University Law School, says the upshot of *Rapanos* means "when wetlands are present on a Brownfields redevelopment site, the time needed to apply for and obtain the necessary permits should be built into the development plan."

But, the first source notes that developers often have tight deadlines to close real estate transactions and that building in the additional time is often not feasible. Additionally, if a project needs a 404 permit, developers can have further difficulties finding wetlands to replace the area being filled and be unable or unwilling to participate in such mitigation.

Dunn's paper also notes that in order to identify whether wetlands are on site, "Practitioners must know what legal test their judicial circuit and district courts are applying post-*Rapanos*."

Her paper, titled *What Does Cheese Have to Do With Chocolate*, explores the post-*Rapanos* tests applied by U.S. courts of appeals and district courts, noting the diversity among the circuits and the lack of clear direction in some circuits.

Only four circuits have ruled definitely on jurisdiction post-*Rapanos*, with three circuits—the 7th, 9th, and 11th circuits—backing the Kennedy test. The 1st Circuit has endorsed the Bush administration's position that either the Scalia or Kennedy standard may be used.

(By Dawn Reeves, *Superfund Report-3/24/08*)

INDUSTRY WARNS EPA PLAN TO EXPAND AUDIT POLICY MAY CHILL MERGERS

Industry is warning that EPA's effort to expand its audit policy to provide more incentives to new owners of businesses that self-disclose violations may have a "chilling effect" on mergers and acquisitions because of other federal requirements, including Securities & Exchanges Commission confidentiality rules.

In light of the warnings, EPA plans to launch a pilot program to test a limited launch of its expanded audit policy for new owners designed to provide enforcement relief in exchange for self disclosure of environmental violations. An industry source familiar with the agency's plans says the scope of the pilot may target a particular industry sector to work out any kinks before EPA formalizes the changes for broader application.

Key among industry's concerns over an expansion of the audit policy, according to the source, is whether a disclosing party is a "bona-fide new owner" and what steps EPA would have to take in order to make that determination. "EPA would have to look at the actual agreement between the parties, and do an in-depth investigation into the transaction. They don't have the expertise or the time, and that could set up a new roadblock for business if they felt like, by disclosing, that might open up contractual negotiations due to EPA scrutiny."

Another issue, the source says, is whether EPA's plan to provide new owners with 21 days to come forward with self disclosures under the audit policy is an adequate time period. EPA is expected to launch a pilot of its new audit policy in the coming months, after the agency sought comments on the idea last May.

EPA wants to expand the audit policy to new owners in an effort to achieve better environmental results, as the program to date has only encouraged companies to admit reporting violations, according to Walker Smith, EPA's civil enforcement chief, speaking to an American Bar Association conference in Keystone, CO, March 15. "Most disclosures to date have been reporting violations, but we also want to have environmental results," Smith said. "Our current initiative is focusing on new owners because we are not getting results otherwise."

But, EPA will have to overcome industry concerns that the plan could scuttle mergers after

industry sources warned the agency of such an impact at meetings EPA had on the issue last summer. "Sellers may question whether to go forward with the deal. A party that comes in under the audit policy raises transaction costs—such that it becomes very complex to work out insurance/indemnity agreements," according to a summary of an EPA meeting to discuss the issue in Washington, DC, last June.

Another concern is that new owners taking advantage of the EPA audit policy could still face state and local penalties for disclosing the violations, industry attendees warned. But a former EPA enforcement official downplays the concerns, noting that environmental issues rarely rise to a level that could scuttle a potential deal. However, the source does acknowledge that EPA generally lacks expertise in mergers and acquisitions. And the source says it is important that EPA seek to satisfy industry's concerns if it wants to achieve results through the policy change.

(*Superfund Report-4/7/08*)

EPA LOOKS TO HIGH-LEVEL PANEL FOR KEY AGRICULTURE POLICY ADVICE

EPA is looking to its new high-level agriculture advisory panel to quickly turn around policy advice on at least three key rules the agency is seeking to complete before the end of the Bush administration, including a new multimedia approach governing concentrated animal feeding operations (CAFOs), a greenhouse gas (GHG) registry and the new renewable fuels standard (RFS).

The agency is looking to the panel to assist the agency with "decisions made between now and while we're all still here," EPA's agriculture policy advisor to the administrator, Jon Scholl, said in an interview with *Inside EPA*. The new panel reflects the fact that agriculture "increasingly plays a large role" in environmental policy, as it becomes a major source of energy and can play a role in GHGs by sequestering carbon in plants and soil, Scholl said.

EPA February 20 unveiled the membership of its Farm, Ranch, and Rural Communities Committee (FRRCC), which is tasked with advising the agency on renewable energy and climate change, livestock waste management, and sustainable agriculture issues.

But, some sources are questionable the formation of the panel so late in the administration. The new panel will likely have the opportunity to help shape major policy issues at EPA only if it survives into the next administration, given the complexity of the issues and the diversity of the panel, one agriculture source says. Some observers are also viewing the new panel as an attempt by the agency to counterbalance a U.S. Department of Agriculture (USDA) task force on air quality issues.

(*Superfund Report-3/10/08*)

ACTIVISTS FILE FIRST COAL WASTE SUIT TO PRESSURE EPA FOR STRICT RULES

The Sierra Club has filed a legal challenge against a Kansas-issued coal combustion waste

FEDERAL REGULATORY UPDATES (Continued)

(CCW) landfill permit, the first step in a new legal strategy the group says is aimed at high-lighting week CCW permits in an effort to force EPA to issue stringent national CCW rules.

However, industry sources are urging EPA not to issue national CCW rules because they say the disposal decisions are best determined on a case-by-case analysis that takes into account specific geographic, climactic and a host of other conditions that cannot be addressed by a national rule.

The Kansas case, *Sierra Club v. Kansas Department of Health and Environment (KDHE)*, filed February 27 in the District Court of Shawnee County, KS, challenges a Kansas environmental department permit issued to Holcomb Common Facilities, LLC, to operate an industrial solid waste landfill.

The landfill permit Sierra Club is challenging is a significant expansion of an existing facility that the group says poses "significant threats" to groundwater from leaching hazardous constituents in the CCW. Environmentalists opposed the expansion in comments on the proposed permit last year, saying they were prepared to litigate if KDHE finalized it.

Sierra Club's suit says the permit does not comply with a state law that requires landfills not degrade groundwater because there is "inadequate" data on both the waste and the groundwater quality. "This failure to establish a baseline of current groundwater quality makes it impossible to determine whether future landfill operations will degrade groundwater quality," the petition says.

The group also says the permit, approved January 28, fails to require a cap and liner on the landfill expansion, and urges the court to revoke the permit. The landfill is intended to serve a proposed Sunflower Electric Power Corp. power plant, which has attracted significant attention over the state's rejection of it due to global warming concerns. Holcomb is part of the Sunflower Corp. Company officials in April comments to KDHE said water quality data at the existing landfill show no impacts to groundwater, which has operated for more than 20 years. The expansion would nearly quadruple the landfill's capacity from 4.6 million cubic yards to 16.8 million cubic yards.

(By Anthony Lacey, *Superfund Report-3/10/08*)

EPA ANNOUNCES FIRST-EVER RULE TO REDUCE MERCURY EMISSIONS FROM POWER PLANTS

Acting Administrator Steve Johnson signed the Clean Air Mercury Rule, a rule that will significantly reduce mercury emissions from coal-fired power plants across the country. Taken together, the recently issued Clean Air Interstate Rule and the new Clean Air Mercury Rule will reduce electric utility mercury emissions by nearly 70 percent from 1999 levels when fully implemented.

"This rule marks the first time the United States has regulated mercury emissions from power plants," Acting Administrator Steve Johnson said. "In so doing, we become the first nation in the world to address this remaining source of mercury pollution."

The Clean Air Mercury Rule will require reductions at our largest remaining source of human-generated mercury emissions, electric utilities. Mercury is a persistent, toxic pollutant that accumulates in the food chain. While concentrations of mercury in the air are usually low, mercury emissions can reach lakes, rivers and estuaries and eventually build up in fish tissue. Americans are exposed to mercury primarily by eating certain species of fish. Fish and shellfish are an important part of a healthy diet. However, pregnant women, women of childbearing age, nursing mothers and young children should avoid certain types of fish that are high in mercury.

Johnson noted that close to 80 percent of the fish Americans buy comes from overseas, from other countries and from waters beyond our reach and control. The United States contributes just a small percentage of human-caused mercury emissions worldwide—roughly three percent with U.S. utilities responsible for about one percent of that.

"Airborne mercury knows no boundaries; it is a global problem. Until global mercury emissions can be reduced—and more importantly, until mercury concentrations in fish caught and sold globally are reduced—it is very important for women of child-bearing age to pay attention to the advisory issued by EPA and FDA, avoiding certain types of fish and limiting their consumption of other types of fish," Johnson added.

The rule limits mercury emissions from new and existing coal-fired power plants, and creates a market-based cap-and-trade program that will permanently cap utility mercury emissions in two phases; the first phase cap is 38 tons beginning in 2010, with a final cap set at 15 tons beginning in 2018. These mandatory declining caps, coupled with significant penalties for noncompliance, will ensure that mercury reduction requirements are achieved and sustained.

The cap-and-trade system established also creates incentives for continued development and testing of promising mercury control technologies that are efficient and effective, and that could later be used in other parts of the world. In addition, by making mercury emissions a tradable commodity, the system provides a strong motivation for some utilities to make early emission reductions and for continuous improvements in control technologies.

For more information about the rule, go to www.epa.gov/mercuryrule

(By Cynthia Bergman, *EPA-5/5/08*)

ARMY CORPS AND EPA IMPROVE WETLAND AND STREAM MITIGATION

The U.S. Army Corps of Engineers and U.S. Environmental Protection Agency in late March released a new rule to clarify how to provide compensatory mitigation for unavoidable impacts to the nation's wetlands and streams. The rule will enable the agencies to promote greater consistency, predictability, and ecological success of mitigation projects under the Clean Water Act.

"This rule greatly improves implementation, monitoring, and performance, and will help us ensure that unavoidable losses of aquatic resources and functions are replaced for the

benefit of this Nation. This is a key step in our efforts to make the Army's Regulatory Program a winner, and the best it can be for the regulated community we serve and those interested in both economic development and environmental protection," said John Paul Woodley, Jr., Assistant Secretary of the Army for Civil Works.

"This rule advances the president's goals of halting overall loss of wetlands and improving watershed health through sound science, market-based approaches, and cooperative conservation," said EPA Assistant Administrator for Water, Benjamin H. Grumbles. "The new standards will accelerate our wetlands conservation efforts under the Clean Water Act by establishing more effective, more consistent, and more innovative mitigation practices."

• Benefits of the compensatory mitigation rule include:

• Fostering greater predictability, increased transparency and improved performance of compensatory mitigation projects

• Establishing equivalent standards for all forms of mitigation

• Responding to recommendations of the National Research Council to improve the success of wetland restoration and replacement projects

• Setting clear science-based and results-oriented standards nationwide while allowing for regional variations

• Increasing and expanding public participation

• Encouraging watershed-based decisions

• Emphasizing the "mitigation sequence"

requiring that proposed projects avoid and minimize potential impacts to wetlands and streams before proceeding to compensatory mitigation

Each year thousands of property owners undertake projects that affect the nation's aquatic resources. Proposed projects that are determined to impact jurisdictional waters are first subject to review under the Clean Water Act. The Corps of Engineers reviews these projects to ensure environmental impacts to aquatic resources are avoided or minimized as much as possible. Consistent with the administration's goal of "no net loss of wetlands" a Corps permit may require a property owner to restore, establish, enhance or preserve other aquatic resources in order to replace those impacted by the proposed project. This compensatory mitigation process seeks to replace the loss of existing aquatic resource functions and area. Property owners required to complete mitigation are encouraged to use a watershed approach and watershed planning information. The new rule establishes performance standards, sets timeframes for decision making, and to the extent possible, establishes equivalent requirements and standards for the three sources of compensatory mitigation; permittee-responsible mitigation, mitigation banks and in-lieu-fee programs.

The new rule changes where and how mitigation is to be completed, but maintains existing requirements on when mitigation is required. The rule also preserves the requirement for applicants to avoid or minimize impacts to aquatic resources before proposing compensatory mitigation projects to offset permitted impacts.

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(US EPA-3/31/08)

NJ REGULATORY UPDATES

LETTER OF NON-APPLICABILITY ISSUANCE BY DEP UNDER ISRA-SUSPENDED

NJDEP's ISRA Applicability Service will be discontinued due to budgetary constraints. Specifically, the Department's Site Remediation Program discontinued the issuance of applicability determinations pursuant to ISRA on April 30, 2008. Applications for applicability determinations (more commonly known as LNAs) received after April 30th will be returned unprocessed. For assistance in determining ISRA applicability, please see the article "How to Determine if ISRA Applies to You" posted on the ISRA home page www.nj.gov/dep/srp/isra

NJ TIGHTENS REGULATION OF DRY CLEANER PERC USE

NJDEP is proposing to regulate the use and air emissions of perchloroethylene, an air toxic regulated by N.J.A.C. 7:27-17, in the dry cleaning industry. New Jersey has approximately 1600 dry cleaning facilities, with approximately 1800 dry cleaning machines, the majority of which utilize perchloroethylene, also known as perc, PCE or tetrachloroethylene.

The Department is proposing amendments to N.J.A.C. 7:27-17 that will require a transition from the use of perchloroethylene at dry cleaning facilities to alternative technologies. Full transition from perchloroethylene dry cleaners would occur by January 1, 2021. Starting January 1, 2010, facilities must replace perchloroethylene equipment classified as third generation equipment with fourth generation equipment, or install a vapor barrier.

The Department also proposes requirements that operators of all existing and new perchloroethylene machines comply with Federal rules for perchloroethylene dry cleaners. The Department anticipates that implementation of these proposed amendments to N.J.A.C. 7:27-17 would reduce perchloroethylene emissions in New Jersey by at least 467 tons per year and possible as much as 545 tons per year.

The proposal was published in the New Jersey Register on December 17, 2007. A copy of the proposal is available from: www.nj.gov/dep/rules/proposals/121707b.pdf

DEP RULE PROPOSAL SEEKS TO CONSERVE WATER BY ENCOURAGING MORE RECLAMATION OF TREATED WASTEWATER

The Department of Environmental Protection has proposed new rules to encourage more reclamation of treated wastewater for a variety of uses such as irrigation of lawns, parks, and athletic fields, as well as in industrial processes, Commissioner Lisa P. Jackson announced in March.

"Once again, New Jersey is at the forefront of using innovative thinking to tackle environmental challenges," Commissioner Jackson said. "This proposal sets the bar for treatment of reclaimed wastewater very high and encourages wastewater facilities in areas of the state with stressed water supplies to examine the feasibility of implementing strategies to reclaim wastewater."

These initiatives are included as amendments made to the proposed re-adoption of the New

Jersey Pollutant Discharge Elimination System rule.

The amendments set high treatment standards for reclaimed water. They require wastewater facilities that discharge into coastal water bodies or those that are located in Critical Water Supply Areas to study the feasibility of using reclaimed water as a condition of NJPDES permits. These are areas that stand to benefit most from wastewater reclamation because of stressed water supplies.

(NJDEP-3/20/08)

RESEARCH STUDY FINDS ANCESTRAL WILD BROOK TROUT STILL INHABIT NEW JERSEY STREAMS

Wild brook trout swimming in some of New Jersey's waters are descendants of the native species that first appeared here more than 10,000 years ago, according to the results of a genetic-research study released in March by Department of Environmental Protection Commissioner Lisa P. Jackson.

"The remarkable finding of ancestral brook trout in New Jersey's streams is a testament to the importance of our strategies to protect water quality in our watersheds," Commissioner Jackson said. "We will use the findings of this valuable research to further guide conservation of New Jersey's wild brook trout and the natural ecosystems they depend on for survival."

Wild brook trout populations maintain themselves in New Jersey's streams through natural reproduction. Hatchery-reared brook trout stocked in high-quality streams can survive, reproduce and interbreed with wild trout. Ancestral or "heritage" brook trout, however, are wild fish that have not interbred and retained the original genetics of their native ancestors.

Although New Jersey ceased a century-old practice of stocking hatchery trout in some wild-trout waters in 1990 to protect the wild trout population, state biologists feared that heritage brook trout might have been lost to interbreeding. Further, secondary impacts of development over the years have impaired many of the cold, clear, highly oxygenated waters that wild trout need to survive, taking a toll on brook trout populations.

The genetic analysis revealed the presence of heritage brook trout populations in 11 streams in two major river basins, the Passaic-Hackensack and the Raritan, and that each of the 22 wild brook trout populations studied have a unique genetic identity. The research revealed that the gene pool of at least one wild brook trout population (Cooley's Brook in the Passaic-Hackensack watershed) has been affected presumably by interbreeding with hatchery-reared trout stocked before 1990. The analysis of samples from the remaining 10 streams were inconclusive as to genetic origin of those populations.

New Jersey's only native trout species and the state's official fish, brook trout colonized after the last glacial ice sheet receded more than 10,000 years ago. Today, wild brook trout inhabit more than 120 small streams cradled in the forested hills and mountains of North Jersey, and one stream in South Jersey.

Partial funding for the brook trout genetics study was made possible through natural-resource damages that the DEP's Office of Natural Resource Restoration recovered from parties responsible for contamination and natural resource injuries at the

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- Perc Use Reduction, pg. 12
- Ancestral Trout Still in NJ, pg. 12
- A Cleaner NY/NJ Harbor, pg. 13

GEMS Landfill in Gloucester County.

To review the research report, visit:
www.njfishandwildlife.com/bkt_genetics.htm

(NJDEP-3/20/08)

DEP TO PROPOSE MAJOR REFORMS TO SITE REMEDIATION PROGRAM

The New Jersey Department of Environmental Protection (DEP) has embarked upon a process to significantly reform its Site Remediation Program in response to years of criticism by the regulated and environmental communities, an overwhelming backlog to open cases (now 20,000), and recent high-profile incidents, such as Kiddie Kollege[®] where young children were exposed to mercury at a day care center located within a former manufacturing facility. What remains to be seen is whether DEP can effectively reform the program to provide better cleanups, without squelching Brownfields redevelopment that is so important to the state.

In October 2007, DEP Commissioner Lisa Jackson responded to much of the criticism of the program during testimony before the Senate Environment Committee and proposed areas for reform that DEP would consider, including those requiring legislative, regulatory and policy changes. Senator Robert Smith, Chairman of the state Senate Environment Committee, asked DEP to convene a "Stakeholder" group to develop specific recommendations. DEP Assistant Commissioner, Irene Kropp, chaired the Stakeholder group, which includes representatives of business and industry, real estate developers, environmental and community groups, trade unions, municipalities and environmental professionals. From the discussion during a series of Stakeholder meetings, DEP drafted white papers on a variety of site remediation topics, which can be found at:
www.nj.gov/dep/srp/stakeholders/whitepapers/.

DEP's goal for the Stakeholder review process recognized that the Site Remediation Program must be strengthened, but in a manner to avoid changes that would disrupt redevelopment of brownfields and to balance environmental protection and public health concerns with economic growth. According to Assistant Commissioner Kropp, DEP is now considering more than 50 different reform proposals, including:

- Use of a Licensed Site Professional program, similar to that of Massachusetts, to outsource much review of site cleanups.
- Presumptive remedies for many sites, including child care centers, schools, and certain residential and landfill sites.
- A permit program to track monitoring and maintenance of engineering and institutional controls used to "cap" contamination.
- A more aggressive enforcement program.
- Giving DEP, rather than site owners, authority to select the remedy for certain contaminated sites.
- Expanding use of remediation funding sources.
- Increased funding for municipalities and child care centers.

NJ REGULATORY UPDATES (Continued)

- Developing a new ranking and tracking system for contaminated sites.
- Discontinuing issuance of Letters of Non-Applicability with respect to the Industrial Site Recovery Act.

At the time of this writing, the proposals are under review by Commissioner Jackson, with a further meeting of the Stakeholders and legislative hearings planned for this spring. Soil remediation standards proposed by DEP in 2007 will be adopted and published in June. Impact to groundwater standards for soil also proposed in the rule will not be adopted, but will be issued as guidance. Rules requiring greater notice of site remediation activities to the public also will be adopted soon.

These changes are likely to have a significant effect on the cleanup of contaminated sites and processing of these cases by DEP. Many of the issues addressed by DEP and the Stakeholders will find their way into proposed legislation, regulations and agency policy, as continuing pressure is applied to reform the state program. What is important is that reasonable voices prevail in the urge to reform, so that DEP program can ensure that the public is better protected from contaminated sites, without adopting needlessly stringent requirements, such as many proposed during implementation of the 1983 Environmental Cleanup Responsibility Act (ECRA). ECRA was reformed in 1993 precisely because the cleanup and redevelopment of formerly industrial "brown-fields" was squelched by overly conservative cleanup standards and procedures.

(Riker Danzig Env. Update – 4/2008)

SCIENTIFIC RESEARCH YIELDS CONSENSUS ON OPPORTUNITIES FOR A CLEANER NEW YORK/ NEW JERSEY HARBOR

After seven years of groundbreaking research and consensus building, the NY/NJ Harbor Consortium of the New York Academy of Sciences, a coalition of over 70 stakeholder organizations, unveiled its final report describing an innovative and collaborative process that brought stakeholders together to recommend and implement actions leading to a more sustainable NY/NJ Harbor Watershed. The harbor project examined the causes of on-going pollution to the harbor and developed management strategies for five important contaminants: mercury (Hg), cadmium (Cd), polychlorinated biphenyls (PCBs), dioxins and polycyclic aromatic hydrocarbons (PAHs).

The exhaustive report, "*Safe Harbor, Bringing People and Science Together to Improve the New York/New Jersey Harbor*," was presented and discussed at a New York Academy of Sciences gathering of scientists, engineers and other technical experts representing the most extensive level of environmental expertise in the region today. Highlighting the report's value the conference was attended by New York City Mayor Michael Bloomberg, Alan J. Steinberg, Regional Administrator of the U.S. Environmental Protection Agency (EPA), Ellis Rubinstein, President of the New York Academy of Sciences, R. M. Larrabee, Director of Port Commerce Department for the Port Authority of NY/NJ and Charles W. Powers, Chair of the NY/NJ Harbor Consortium.

Originating from a 1998 EPA proposal, the NY/NJ Harbor Consortium of the New York Academy of Sciences has been meeting-in plenary and in diverse technical groupings-to explore ways to identify the sources of five contaminants in the watershed and make recommendations to reduce their environmental impacts. Today's final report presents consensus recommendations based on sound science to clearly outline opportunities for environmental improvement and collective action.

"A healthy harbor is a regional priority with national significance," said Alan J. Steinberg, EPA Regional Administrator. "EPA is proud to have supported and partially funded this broad-based coalition of collaborative problem solvers, and even more proud to see final recommendations that will encourage others to seize those opportunities to be good environmental stewards."

"The harbor is not only an environmental treasure but the lifeblood of some of the most efficient aspects of our regional economy. The harbor deserves concerted efforts from all of us-big institutions, small municipalities and families-to make it even healthier. Remarkably, key people from 70 institutions were able over 7 years to agree on literally hundreds of ways-based on the data-to do just that. The achievement is worthy of not only celebration but of being emulated for other tough but resolvable social policy challenges," said Charles W. Powers, the Consortium's chair for the life of the project. "The Port Authority of New York and New Jersey is proud of our decade-long association with the Harbor Consortium and the New York Academy of Sciences Industrial Ecology, Pollution Prevention Study for the New York/New Jersey Harbor. The Harbor Consortium members, though representing diverse and sometimes competing interests, were able to achieve consensus on the industrial sources of contaminants in the harbor and ways to prevent them from entering the watershed. The award winning pollution prevention strategies developed by the Consortium will lead to a cleaner and healthier Harbor and ultimately reduce the cost associated with maintaining safe navigation channels for the thousands of vessels calling at the port," said R. M. Larrabee, Director of Port Commerce Dept. for the Port Authority of NY/NJ.

"We're very pleased to see the completion of the final report of the Academy's Harbor Project, our multi-year study of the pollution threats facing the New York/New Jersey harbor," NYAS President Ellis Rubinstein said. "This project has been instrumental in bringing together representatives of the many communities deeply concerned about these critical environmental issues and committed to working collaboratively to develop scientifically sound pollution prevention strategies. The result has been a rich collection of reference materials readily available to anyone interested in these important problems."

The New York/New Jersey Harbor faces a long list of complex and controversial environmental issues. The NY/NJ Harbor Consortium of the New York Academy of Sciences has achieved extraordinary results by harnessing scientific expertise from a diversity of sources to create a forum for holistic discussion and decision-making.

Results and recommendations from this research have been published and released in stages begin-

ning in 2002 and ending in 2007 with the publication of the final report on PAHs. Through a broad array of governmental actions and local initiatives a significant number of these recommendations have been, or are being, implemented. The actual reports of the NY/NJ Harbor Consortium and their many recommendations are available at: www.nyas.org/programs/harbor.asp.

The NY/NJ Harbor Consortium achievements and published works provide a guide applicable for developing achievable solutions to several kinds of highly complex problems. The five reports have become a major reference and educational source of information for a diverse global audience. To access the "Safe Harbor" Report of the New York Academy of Sciences Harbor Consortium, please visit:

www.nyas.org/programs/harbor/Safe_harbor.pdf
(NY/NJ Harbor Consortium Issues Final Report - 4/3/08)

LANGUAGE CHANGES IN NO FURTHER ACTION LETTERS & SOIL STANDARDS REVISIONS

RT has recently found that all future No Further Action (NFA) letters issued by the NJDEP, with the exception of residential home heating oil cases, will henceforth be "Conditional" NFAs. The issuance of a Conditional NFA previously implied that an engineering or institutional control existed at a property to address known soil and/or groundwater contamination. However, with the exception of homeowner heating oil cases, every NFA letter issued after February 1998, whether it was conditional or not, contained the following paragraph immediately after the word "Conditions:"

"Pursuant to N.J.S.A. 58:10B-12o, [the responsible party] and any other person who was liable for the cleanup and removal costs, and remains liable pursuant to the Spill Act, shall inform the Department in writing within 14 calendar days whenever its name or address changes. Any notices submitted pursuant to this paragraph shall reference the above case numbers and shall be sent to: Bureau of Case Assignment & Initial Notice - Case Assignment Section, Enforcement and Assignment Element, P.O. Box 28, Trenton, N.J. 08625."

According to NJDEP representatives, this has always been the "first condition" of every NFA issued with a Covenant Not to Sue. In many cases, it was the only condition. This condition, similar to a Deed Notice or CEA, is required to be complied with when a responsible party moves. The NJDEP stated that that most people have reportedly ignored this condition over the years, and therefore, all future NFAs will be "conditional" NFAs to clarify this requirement. DEP is apparently making this change to assure that responsible parties can be located in the event Biennial Certifications are not filed in a timely manner.

On a separate note, we anticipate that the revised soil cleanup criteria will be promulgated by June. Check out our website: www.rtenv.com) for updates. Should you need assistance with environmental investigation or remediation activities at your property, please do not hesitate to contact Joseph Lang at (856) 467-2276.

NJ DEP Adopts New Remediation Standards – Lower Soil Limits For Many Parameters Now Out Final At RT Review Press Time

- Published in New Jersey Register June 2, 2008 (N.J.A.C. 7:26D)
- Sites can be remediated to soil cleanup criteria IF a RAW or RACR, compliant with the NJ Tech Regs, is submitted to DEP by December 2, 2008.
- The new soil standards must be used where constituents concentrations are less than the previous soil cleanup criteria by an Order of Magnitude or more, even at time of Biennial Certifications..
- Many questions still left to be answered: What about new release areas at existing releases sites, etc.?
- New Standards significantly lower some constituent concentrations to levels below background in some areas. DEP will likely see increase in “background” cases.
- No impact to ground water standards were adopted as part of new standards and groundwater pathways will be evaluated on a site specific basis.

For more information, call Justin Lauterbach at (856) 467-2276.

FEDERAL REGISTER NOTICES <http://www.epagov/homepage/fedrgstr>

Environmental Protection Agency Drinking Water Contamination Candidate List 3 – Draft; Notice.	<i>(Federal Register – 2/21/08)</i>
Mine Safety and Health Administration Asbestos Exposure Limit; Final Rule.	<i>(Federal Register - 2/29/08)</i>
Nuclear Regulatory Commission Hope Creek Generating Station Final Environmental Assessment and Finding of No Significant Impact; Related to the Proposed License Amendment to Increase the Maximum Reactor Power Level	<i>(Federal Register 3/11/08)</i>
Federal Transit Administration Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites; Final Rule.	<i>(Federal Register - 3/12/08)</i>
Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations; Proposed Rule.	<i>(Federal Register - 3/14/08)</i>
Environmental Protection Agency National Volatile Organic Compound Emission Standards for Aerosol Coatings; Final Rule.	<i>(Federal Register - 3/24/08)</i>
Environmental Protection Agency National Ambient Air Quality Standards for Ozone; Final Rule. EPA is making revisions to the primary and secondary NAAQS. EPA is revising the level of the 8-hour standard to 0.075 parts per million (ppm).	<i>(Federal Register - 3/27/08)</i>
Pipeline and Hazardous Materials Safety Administration Hazardous Materials: Improving the Safety of Railroad Tank Car Transportation of Hazardous Materials; Proposed Rule.	<i>(Federal Register – 4/1/08)</i>
Environmental Protection Agency National Primary Drinking Water Regulations: Drinking Water Regulations for Aircraft Public Water Systems; Proposed Rule	<i>(Federal Register – 4/9/08)</i>
Department of the Army, Corps of Engineers – Environmental Protection Agency Compensatory Mitigation for Losses of Aquatic Resources; Final Rule	<i>(Federal Register – 4/10/08)</i>
Department of Environmental Protection Lead; Renovation, Repair, and Painting Program; Lead Hazard Information Pamphlet; Notice of Availability; Final Rule	<i>(Federal Register – 4/22/08)</i>
Environmental Protection Agency New Source Performance Standards Review for Nonmetallic Mineral Processing Plants; and Amendment to Subpart UUU Applicability	<i>(Federal Register - 4/22 /08)</i>
Environmental Protection Agency Standards of Performance for Coal Preparation Plants.	<i>(Federal Register – 4/28/08)</i>
Department of Transportation National Highway Traffic Safety Administration – Average Fuel Economy Standards, Passenger Cars and Light Trucks; Model Years 2011-2015; Proposed Rule.	<i>(Federal Register – 5/2/08)</i>
Environmental Protection Agency Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less than 30 Liters Per Cylinder; Final Rule.	<i>(Federal Register – 5/6/08)</i>
Environmental Protection Agency Control of Hazardous Air Pollutants from Mobile Sources; Early Credit Technology Requirement Revision - Benzene.	<i>(Federal Register – 5/12/08)</i>
Fish and Wildlife Service Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Polar Bear (<i>Ursus maritimus</i>) Throughout Its Range; Final Rule.	<i>(Federal Register – 5/15/08)</i>
Environmental Protection Agency Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM _{2.5}).	<i>(Federal Register – 5/16/08)</i>
Environmental Protection Agency National Ambient Air Quality Standards for Lead; Proposed Rule.	<i>(Federal Register – 3/20/08)</i>

PENNSYLVANIA BULLETIN NOTICES

Regulations – Environmental Quality Board approved proposed regulations setting NOx emission standards for cement kilns and glass furnaces.	2/22/08
Notices – Calculating Long-Term Operation and Maintenance Cost Bonds for Water Supply Replacement – Mining Operations; Notice of Rates.	2/23/08
Regulations – Published proposed revisions to the State’s Air Quality Implementation Plan dealing with particulate matter (PM2.5).	3/7/08
Technical Guidance & Permits – Final Guidance; Laboratory Reporting Instructions for Lead and Copper.	3/7/08
Technical Guidance & Permits – Citizens’ Requests: Receiving, Tracking, Investigating, Appealing and Filing. Revises the procedures for the investigation of complaints relating to coal and industrial mineral mining activities and the use of explosives.	3/14/08
Technical Guidance & Permits – Pennsylvania Drinking Water Information System (PADWIS) Violation and Enforcement User’s Manual.	3/14/08
Technical Guidance & Permits – Pennsylvania Land Recycling Program Technical Guidance Manual – Section IV General Guidance Substantive revisions were proposed to Pennsylvania’s Land Recycling Program Technical Guidance Manual – Section IV General Guidance and were advertised for public comment at 37 Pa.B 4261 (August 4, 2007).	3/14/08
Regulations – Proposed changes to Radiological Health and Radon Certification Fees.	3/14/08
Draft Technical Guidance – Program Guidance; Site Suitability and Alternatives Analysis Guidelines for New Land Development Proposing Onlot Sewage Disposal.	3/22/08
Rules and Regulations – Notification of Proximity to Airports – Waste Facilities.	3/22/08
Technical Guidance & Permits – Evaluation of Underground Storage Tank Liners.	3/28/08
Technical Guidance & Permits – Changes to Mining Licenses, Bonds and Permits.	3/28/08
Regulations – Published for comment general air pollution control provisions and other changes needed to implement the Clean Air Interstate Rule. (Pa Bulletin pg. 1705)	4/11/08
Technical Guidance & Permits – Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales and Storm Sewers.	4/11/08
Regulations – Proposed regulations regulating nitrogen oxide emissions from glass melting furnaces and cement kilns.	4/18/08
Technical Guidance & Permits – Published a proposed statement of policy on wind power projects.	4/25/08
Technical Guidance & Permits – Pennsylvania Coastal Resources Management Program Technical Guidance Document Program changes.	5/2/08
Notices – Final General Plan Approval for Pharmaceutical and Specialty Chemical Production (BAQ-GPA-24).	5/24/08
Notices – Nutrient and Sediment Reduction Credit Trading Program; Nutrient Trading Program Activities and NPDES Permits.	5/24/08
Rules and Regulations – Air Quality Permit Streamlining – Proposed Regulation Amendments.	5/24/08
Technical Guidance & Permits – Final Guidance; Evaluation of Underground Storage Tank Liners.	5/30/08
Notices – City of Philadelphia’s Ambient Air Monitoring Network Plan Available for Public Comment.	5/31/08

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PA UPDATES

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- UST Leak Cleanup Funds, pg. 4
- Fluorescent Bulb Recycling, pg. 4

TECHNOLOGY UPDATES

- Antarctic Waters - Marine Life, pg. 5
- Unexpected Sources of Building VOC Exposure, pg. 5
- Fluorescent Bulb Breakage, pg. 6

FEDERAL UPDATES

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- Electronic Waste Manifest, pg. 8
- Locomotive and Marine Engines - Emission Reductions, pg. 9
- Tighter Lead Air Standards, pg. 9
- Coal Waste Suit, pg. 10

NJ REGULATORY UPDATES

- Perc Use Reduction, pg. 12
- Ancestral Trout Still in NJ, pg. 12
- A Cleaner NY/NJ Harbor, pg. 13

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