



# THE STANDARD

## Hurricanes Impact Delaware River Basin Region

On September 20, 2004, businesses and residents in Easton, Pennsylvania, found themselves under water. Following heavy rains resulting from a severe hurricane season, the Delaware River swelled well above flood levels and reached a peak that the river had not reached in about 10 years. The flood waters eventually receded but problems related to wet buildings and the silt and other materials left in the aftermath confronted the Delaware River Basin area.

Environmental Standards was contacted and was able to quickly respond to two clients who needed help addressing mold issues associated with water damage. Environmental Standards provided assistance in the form of sample collection, inspections, recommendations, and coordination with remediation/cleanup firms.



One of the biggest challenges associated with a flood event is drying walls quickly and thoroughly. Using the services of a professional firm to "dry out" a building is often advantageous because appropriate equipment and techniques are required to effectively dry water-damaged walls. Fungal

growth is promoted by the presence of excess moisture in organic materials such as wooden studs, plywood, and drywall covering. Fungal growth will start within as little as 48 hours after an event and, depending on the temperature, can occur explosively, covering surfaces over night.

If you have had a flood or moisture intrusion event and need mold management assistance, please contact Certified Residential Mold Inspector Stephen Zeiner at 610-935-5577.

## Lancaster County Selects Environmental Standards To Complete \$400,000 Brownfields Grant Work

Environmental Standards is pleased to announce that the Lancaster County (Pennsylvania) Planning Commission (LCPC) has selected Environmental Standards to provide professional services in support of a \$400,000 Targeted Brownfield Assessment (TBA) Grant received by the LCPC in support of its Land Recycling Initiative. In the past three years, the County has been recognized by the US EPA as one of the nation's premier property

redevelopment programs. With more than \$800,000 in US EPA Grant funds, Environmental Standards was called upon by the LCPC to provide our expertise.

According to the Lancaster County Land Recycling Initiative detailing this TBA Project, Lancaster County has a population of more than 470,000 in an area of approximately 949 square miles. While known predominantly for its agricultural-based Amish community, Lancaster County also has a diverse economy and a long history of industrial activity. As the County has grown and

*(Continued on page 5)*

### FEATURED TOPICS

- Proposed AAI Standard..2
- VA Approves Module.....2
- MDL Proposed Rule.....2
- Land Re-Use Discussed .3
- ELAB Challenges.....4
- Analytical Lab News.....4
- Upcoming IT News.....4
- USTFields Remediation..5
- Brownfields 2004 .....6
- SWEP National Forum....7
- New Geoscientists.....7

## US EPA Withdraws Proposed Rule For Method Detection Limits (MDLs)

The US EPA has announced the withdrawal of its controversial March 2003 proposed rule that revised the detection and quantitation procedures for analytical methods associated with water permitting and compliance monitoring under Clean Water Act (CWA) programs. Detection and quantitation procedures are used to demonstrate that a laboratory instrument can identify (detect) a pollutant and can accurately determine how much (quantitate) of the pollutant is in an environmental sample. Laboratories are required to provide detection and quantitation capabilities to permitting authorities.

The proposed procedures to calculate Method Detection Limits (MDLs) were critically important to the regulated and laboratory communities. Many varying approaches for MDL calculation were presented to the Agency by stakeholders during

the public comment period and have not been adequately addressed by the US EPA. When issuing the announcement earlier this month, the US EPA indicated that technical comments received during the public comment period prompted its withdrawal of the proposed rule and that these recommendations and suggestions are being evaluated. The Agency intends to solicit more input from the technical community and is investigating a mechanism to successfully bring the various stakeholders into the rule change process. In addition, a revised assessment document entitled "Revised Assessment of Detection and Quantitation Approaches" was released. The existing 1986 procedures (40 CFR Part 136 Appendix B) remain in effect. More information about this issue is available at [www.epa.gov/waterscience/methods/det](http://www.epa.gov/waterscience/methods/det).

found to be in excess of current GPS are presumably attributable to six waste management cells and a disposal area. Each cell has been formally closed in accordance with state solid waste regulations. GPS exceedances observed during 2003 groundwater compliance sampling events were found to be consistent with earlier events that identified VOCs in excess of site GPS. In addition, analytical results of samples from three GS compliance wells exhibited organic compounds in excess of GPS during a June 2003 semiannual compliance-monitoring event. State regulations mandate that remedial actions be taken to address these exceedances.

## Proposed All Appropriate Inquiry Standard Published

Under the terms of the Small Business Liability Relief and Revitalization Act (January 2002), the US EPA was required to establish federal standards and practices for conducting all appropriate inquiries associated with CERCLA liability. In August, the proposed "Standards and Practices for All Appropriate Inquiries" was published in the *Federal Register*.

All Appropriate Inquiry, which is defined by the US EPA as "the requirement for assessing the environmental conditions of a property prior to its acquisition," was a major topic of interest during the Brownfields 2004 Conference, attended by Principal Geoscientist Gerry Kirkpatrick. The new standard requires a broader scope of environmental inquiry and may be more costly and time-consuming for property developers. The most significant changes related to the following:

- A new definition for an environmental professional.
- Issues associated with addressing data gaps and data failures.
- The need for "new" sampling and analysis data.
- The "shelf life" of a Phase I report.
- Possible exceptions to the need for visual site inspections.
- Historical searches and timeframes for document reviews.
- Property valuation adjustments due to environmental impairment.
- Neighbor interviews.

Environmental Standards can explain the ramifications of the new standard and help address the potential effects on development projects. For more information, contact Gerry Kirkpatrick at 610-935-5577.

## Virginia Approves Permit Module For Solid Waste Facility Groundwater Restoration Project

The Virginia Department of Environmental Quality (VA DEQ) has approved the Corrective Action Permit Module XIV submitted by Environmental Standards for a projected \$14.5 million, 10-year groundwater cleanup project at the Ivy Material Utilization Center (Ivy MUC) in Charlottesville, Virginia. This is only the third such approval in Virginia. Environmental Standards is currently assisting the Rivanna Solid Waste Authority with remediation efforts at the former 88-acre landfill that now serves as a waste transfer station for residents of Charlottesville and Albemarle County.

One component of the Permit Module is an Engineered, Enhanced Bioremediation (EBR) project. EBR, a proven technology capable of reducing site constituents of concern (COCs) to concentrations below their respective Groundwater Protection Standards (GPS), can degrade or convert many organic chemicals into nontoxic or less toxic compounds. Based on the results of a 6-month microcosm study that showed successful bioremediation of

groundwater samples of impacted Ivy MUC groundwater in a laboratory, an initial phase of EBR will be implemented in a select area of the landfill. This initial phase, expected to last 22 months, will evaluate aquifer-specific effectiveness and application methods for batch additions of sodium lactate followed by bioaugmentation as necessary to promote biodegradation of the

observed volatile organic compounds (VOCs) within the impacted aquifers in a 1-acre to 2-acre area of the landfill. Other components of this Corrective Action Plan (CAP) include intrinsic bioremediation; interim measures for an area of

the former landfill identified as the "Paint Pit"; continuation of existing in-place controls such as landfill gas collection and control, leachate collection and removal, waste cell final closure, and western groundwater pump and treat system; institutional controls such as fencing and deed restrictions; and presumptive remedies such as storm water management and closed cell cap maintenance.

Groundwater impacts at the site

**This is only the third such approval in Virginia**

# Federal And State Environmental Administrators Gather To Discuss Developments In Land Re-Use

Joining forces to bring about environmental cleanup and economic revitalization in the Mid-Atlantic region was the theme of the second annual "Orchestrating Land Re-Use" Program, at Philadelphia's Kimmel Center for the Performing Arts on November 4, 2004. Before a crowd of nearly 100 environmental professionals, keynote speakers Mr. Donald S. Welsh, US EPA Region III Administrator, and Mr. Eugene A. DePasquale, Pennsylvania Department of Environmental Protection (PA DEP) Deputy Secretary of the Office of Community Revitalization and Local Government Support, discussed new cleanup initiatives designed to help save communities both time and money when redeveloping brownfields sites.

These leaders in environmental redevelopment – developers, investment bankers, insurers, attorneys, and environmental consultants who have actually participated in land recycling projects – were brought together by event sponsors Buchanan Ingersoll, PC; Citizens Bank; the Clair Odell Group, a subsidiary of Citizens Bank; AIG; and Environmental Standards.

Environmental Standards CEO and Technical Director of Chemistry/Principal Rock J. Vitale welcomed guests and noted that the Mid-Atlantic region is on the "cutting edge of land redevelopment" efforts.



Eugene A. DePasquale, PA DEP Deputy Secretary of Community Revitalization and Local Government Support

In his remarks, Mr. Welsh outlined new legislation that facilitates the redevelopment of brownfields sites by providing liability protection for redevelopers who have no responsibility for pollution identified at a site; the legislation

expands the definition of a brownfield to increase the eligibility requirements for receiving federal cleanup assistance. In addition, the US EPA is authorized to



Donald S. Welsh, US EPA Region III Administrator

direct funds for the cleanup of sites contaminated with petroleum products (e.g., abandoned gas stations).

Mr. Welsh also detailed an April 2004 agreement between the US EPA and the Commonwealth of Pennsylvania that reduces the time and cost involved in the redevelopment of a brownfields site. The One Cleanup Program provides "one-stop-shopping" for municipalities, developers, lenders, and businesses; the US EPA and PA DEP are both consulted throughout the cleanup process, thereby ensuring that both regulatory entities are "on the same page." This is the first joint agreement of its kind in the country.

The Region III Administrator cited the Bethlehem Commerce Center, a 1,600-acre site intended for industrial and commercial development located at the former Bethlehem Steel site in Bethlehem, Pennsylvania, as a notable success story associated with the One Cleanup Program. Development of the property had been delayed because the US EPA and PA DEP could not reach an agreement on who was liable for site cleanup. In an effort to enhance progress on the project, the federal and state environmental agencies joined forces to ensure that the cleanup project would meet the needs of all parties involved. Today, development at the site is well underway. The planned commerce center will include, among other things, a \$400-million retail, entertainment, and residential area.

Referring to Benjamin Franklin as "one of Philadelphia's wisest residents"

and his often-quoted "time is money," Mr. Welsh commented that "In this case, our new, improved cleanup program promises to save communities both time and money."

Mr. DePasquale addressed the creation of Pennsylvania's Brownfield Action Team (BAT) – an enhanced management approach that puts the PA DEP in direct contact with local government officials and that establishes a common goal of restoring contaminated sites and returning them to productive use. Projects qualifying for BAT assistance are assigned a PA DEP project manager who provides one-stop-shopping for everyone involved in the project on the local level. BAT projects receive expedited action on any permits needed for the environmental assessment and cleanup of the site, as well as assistance from the designated project manager with funding and permit requests to other state agencies. According to Mr. DePasquale, jobs will be created and economic growth will be stimulated while preserving green-space and farmland in Pennsylvania. The Deputy Secretary also emphasized the importance of passage of Pennsylvania Governor Rendell's Growing Greener II legislation. The legislation is designed to enhance programs that combine economic and community development with environmental efforts.



Rock J. Vitale, CEO and Technical Director of Chemistry/Principal, Environmental Standards

A performance by violinists Mr. Gil Shaham and Ms. Orli Shaham capped off the night as guests were treated to a musical interlude by this brother and sister duo. In keeping with the evening's theme, their well-received performance represented what "orchestration" and cooperation can accomplish.

## ELAB Faces Current And Future Challenges

As reported in the fall 2003 issue of *The Standard*, Environmental Standards Technical Director of Chemistry Rock J. Vitale, CEAC, CPC, is a member of the Environmental Laboratory Advisory Board (ELAB). ELAB is a federally chartered advisory committee that provides private-sector input to the US EPA and the National Environmental Laboratory Accreditation Conference (NELAC). The Board is currently working with the US EPA on campaigns to increase the number of NELAC accredited authorities and on homeland security issues relative to inventory control of hazardous materials stored/used in

### Analytical Laboratory News

#### ***Pace Analytical Services Acquires En Chem, Inc.***

Pace Analytical Services, Inc. purchased En Chem, Inc. effective October 1, 2004. Pace is headquartered in Minneapolis, Minnesota, and operates a national network of laboratory facilities and service centers. En Chem laboratory facilities in Green Bay and Kimberly, Wisconsin, were included in the purchase, which strengthens Pace's service in the upper Midwest Region of the United States and adds biota testing and low-level mercury analysis to Pace's analytical capabilities. En Chem is currently operating as a division of Pace Analytical, Inc.

#### ***TestAmerica Environmental Services and Sequoia Laboratory Network Merge***

The largest merger in environmental laboratory history was completed earlier this month when TestAmerica Environmental Services (headquartered in Asheville, North Carolina) merged with the Sequoia Laboratory Network (headquartered in Morgan Hill, California). The newly created network of 23 laboratories and 20 service centers throughout the United States offers a full suite of environmental testing services.

environmental laboratories. Anticipated future areas of interest for ELAB include the evaluation of antiquated analytical methods (for proposed revision or deletion) and the certification of chemists working in environmental laboratories (such as certification programs offered by the National Registry of Certified Chemists [NRCC] and the American Institute of Chemists [AIC]). In addition, ELAB faces the significant challenge of advising the US EPA on the myriad of technical issues associated with the defensible performance of method detection limit (MDL) studies.

## Environmental Jurisprudence

The president of a Pennsylvania laboratory was convicted in August 2004 of 34 counts of mail fraud in connection with falsified environmental testing results. Victims of the crime submitted water and wastewater samples to the laboratory between May 1998 and July 2000 for analysis to determine levels of volatile organic compounds and were billed almost \$10,000 (for the fraudulent results). Sentencing is scheduled for January 2005 and could include up to a 170-year prison term.

A Pennsylvania contractor has been fined \$4,800 for violations of Pennsylvania's Radon Certification Regulations. The violations included improper installation of radon mitigation systems, failure to report installation of systems, and installing systems without a valid certification. Commonwealth regulations require individuals installing radon mitigation systems to be certified (unless the installer is the homeowner).

## Upcoming IT News

Environmental Standards' newest service area – Web-based Geographic Information Systems (GIS) – will be featured in an upcoming edition of *The Standard*. Contact Dennis Callaghan, Director of Information Technologies, at 610-935-5577 for information about this "advanced" technology.

## Maryland Addresses Medical Laboratory Accreditation And Fraud

Medical laboratories and their accreditation process have come under increased scrutiny in Maryland as a result of state investigations that identified testing procedure irregularities and fraudulent test reporting at two testing facilities. Both laboratories were certified by the College of American Pathologists (CAP), an independent national accrediting agency.

When a medical laboratory is inspected and accredited by a non-profit agency (in this case, CAP), the laboratory is "deemed" to meet state requirements. Maryland records indicate that there are approximately 2,000 licensed medical laboratories in the state and that 150 have been accredited by CAP. According to the CAP website, its laboratory accreditation program has existed for over 35 years with more than 6,000 laboratories accredited.

In late August, Maryland health officials and a congressman called for a major overhaul of the accreditation process following discovery of significant discrepancies at two certified facilities. State investigators, who were contacted by whistleblowers, uncovered deliberate manipulation of data and altered instrument quality control reporting. One medical laboratory was ordered to close its doors and 3,000 patients were offered re-testing as a result of investigation findings.

Laboratory certification and improper reporting in the environmental laboratory community have been reported in previous issues of *The Standard*. In this edition, environmental laboratory accreditation and certification of environmental laboratory chemists are recognized as major challenges facing the US EPA and the Environmental Laboratory Advisory Board (see article on this page). Laboratories do make errors, which is why Environmental Standards recommends that our clients include data validation and regular laboratory auditing in their corporate laboratory programs.

**State investigators uncovered deliberate manipulation of data and altered instrument quality control reporting.**

# USTFields Funding Enables Remediation Of Former Gas Station And Railroad Spur Site

## \$400,000 Brownfields Grant Work

(Continued from page 1)

the ring of sprawling suburbs has expanded into what was once urban communities, redevelopment and reuse has been complicated by the presence or potential presence of hazardous substances, pollutants, contaminants, or petroleum products. Stabilizing conditions in these former communities is the focus of the Lancaster County's Land Recycling Initiative.

The projects associated with this latest grant will include site selection, environmental assessment, reuse planning, and identification of cleanup mechanisms. Specifically, the LCPC will use these funds to conduct assessments at high-priority properties (including eligible properties with petroleum contamination) and to design cleanup plans if necessary.

Environmental Standards will be involved in conducting Phase I and Phase II Environmental Site Assessments (ESAs) for hazardous waste-contaminated and petroleum-contaminated sites on multiple properties selected by the County. In addition, Environmental Standards will coordinate among federal, state, and local regulatory agencies to ensure that all applicable quality standards are met and will be responsible for all reporting efforts, including Site-Specific Sampling and Analysis Plans and Quality Assurance Project Plans.

All work occurring under this \$400,000 assessment grant falls under the US EPA's Targeted Brownfields Assessment Project guidelines, and is designed to obtain release of liability through Act 2 of the Pennsylvania Land Recycling and Environmental Remediation Standards Act.

The LCPC previously selected Environmental Standards to provide support in the redevelopment of the 3.5-acre Roberto Clemente Park. This project was made possible by a US EPA Region III Brownfield Assessment Demonstration Pilot Program grant of \$200,000. Following this project, the LCPC received a \$200,000 Under-ground Storage Tank (UST) Field Pilot grant for work on adjoining properties in the City of Lancaster that used to be home to a service station (see article to the left). Environmental Standards was also brought in to work on this project.

Environmental Standards has a long-standing relationship with Lancaster County and looks forward to continuing to assist the county in its remediation efforts.



The mystery of what rested beneath the ground at the site of a former gas station and adjoining equipment storage area and railroad spur in Lancaster County, Pennsylvania, was solved recently when an Environmental Standards Baseline Remedial Investigation revealed the presence of four large fuel storage tanks. While this "find" is significant, speculation about what could have been buried at the site (developed since the 1930s) was that even more might be found. "There was even a rumor that a railroad car was buried down there," said project manager James R. Arthur.

Work on this project was made possible due to a \$200,000 Under-ground Storage Tank (UST) Fields Pilot Program Grant received by the Lancaster County Planning Commission (LCPC) and the Redevelopment Authority of Lancaster County. Environmental Standards is the consultant acting on behalf of the LCPC.

One portion of the property was the location of a single gas pump island and a small, one-story stucco and tile-roofed office building. The station operated from the late 1930s until the 1980s, when the property was appar-

ently abandoned; the Redevelopment Authority acquired the property through condemnation in November 2003. A utility company had owned the adjoining property from 1930 until 1975, when it was granted to the City of Lancaster. During the utility company's ownership, the property was used as a storage area for large equipment and as a railroad spur. The joint properties comprise less than an acre.

Environmental Standards' objective for the project was to minimize the environmental uncertainty at the site and thereby decrease the potential for unknown environmental issues to

emerge at this location such that the land would be more attractive to a developer. The first step was to conduct a geological survey of the site to determine exactly what was buried in the

ground. A ground-penetrating radar (GPR) survey was conducted to detect and delineate suspected USTs and associated piping beneath the site as well as anything else that might be picked up by the GPR. At one point, it was believed that possibly seven railroad cars were located near the property. Excavation activities at the site uncovered only the four USTs, which

(Continued on page 7)

**"There was even a rumor that a railroad car was buried down there."**



# Brownfields 2004 Conference: St. Louis Gateway To Success For Environmental Standards

## Principal Participates In Roundtable Discussion

Keeping residents, municipal leaders, and other members of the community informed at all phases of a redevelopment initiative is key to completing a successful project – a point emphasized during a “Marketplace of Ideas” session at the Brownfields 2004 Conference held in September. Principal Geoscientist Gerry Kirkpatrick was a key participant in the session that included a sizeable group of development authority personnel and regulators, who stayed through the closing day of the conference to attend the advanced session entitled “Community Relations During Brownfields Redevelopment.” This roundtable discussion provided members of the legal and government communities a forum to offer tips and advice for building relationships with community leaders and the public during brownfields redevelopment projects. Panelists included Mr. Brian J. Clark, Buchanan Ingersoll, PC; Ms. Colleen Kokas, New Jersey Department of Environmental Protection; and Ms. Sharon H. Williams, Pennsylvania Department of Environmental Protection.

Topics such as on-site contractor interaction with the public, agency assistance available to the redevelopment community, and legal advice on what to say and how to say it were explored. Specifically, panelists offered the following tips.

- Project managers should present technical information in layman’s terms.
- Authorities must hold public meetings on a regular basis.
- State and federal environmental agencies need to interact with the public.

Ms. Kokas and Ms. Williams provided their perspectives on initiatives currently underway to keep the public informed of redevelopment efforts in their respective states, and Mr. Clark provided insight on the legal obligations of developers to disclose development efforts.

Mr. Kirkpatrick dismissed a common myth when asked how to handle a developer who thinks keeping the public out of the redevelopment process will speed up the project approval process. “Redevelopment needs to be a grass-roots effort, almost a door-to-door campaign,” he told participants. “A more one-on-one effort to educate the public will result in closing of the deal more quickly.” The two are not mutually exclusive and developers do well when they recognize that community involvement actually speeds up the process.

Environmental Standards intends to be involved in the Brownfields 2005 Conference, scheduled for November 2-4 in Denver, Colorado. Watch future issues of *The Standard* for brownfields development news.

## Toxicology Manager Receives National Award



Ms. Kathy Zvarick, pictured above, the Environmental Standards Manager of Toxicology and Risk Assessment, received the “People’s Choice” award at the annual Brownfields 2004 Conference for her poster presentation titled “The Kids Are Alright: An Evaluation of Vapor Intrusion At An Elementary School.” Ms. Zvarick’s presentation was selected by conference attendees from among 60 entries submitted and displayed in the conference’s Poster Gallery.

In her presentation, Ms. Zvarick addressed volatile organic compound (VOC) vapor intrusion and indoor air quality issues associated with a 6,850-gallon No. 2 fuel oil release at a Penn-

sylvania elementary school (see the summer issue of *The Standard* for more information about this Environmental Standards project). The presentation provided examples of how the evaluation of indoor air quality during this project was confounded by the potential presence of background VOCs common in school supplies. Background samples – one indoors and one outdoors – were collected in areas away from the initial four test locations to determine what effect, if any, supplies such as glues and paints would have on air quality results.

Another factor that added an interesting twist to this risk assessment project was the fact that new Pennsylvania Department of Environmental Protection (PA DEP) indoor air medium-specific concentrations (MSCs) that were developed four weeks into the project had to be used as screening criteria. In this case, because of the age and exposure frequency of elementary school children, the commonwealth required the use of residential MSCs. Using informative charts to summarize findings, Ms. Zvarick showed that while the pre-remediation air samples exceeded MSCs, post-remediation and background samples were below MSCs. Aggressive remediation efforts allowed the school to reopen six weeks after the discovery of the fuel oil release.

The poster itself was unique in its presentation. There were figures showing the direction of fuel oil migration, areas of investigative excavation, areas of excavation/remediation, and preliminary and post-remediation air quality sampling locations. Also included were photos showing VOC and semivolatile organic compound (SVOC) indoor air samples and duplicates being collected in various rooms throughout the school. While taking a serious approach to this important subject, Ms. Zvarick was still able to add some whimsy to the presentation by using child-like graphics of a school building and a school bus appearing to travel down the road.

Finally, the poster included an interesting breakdown of potential sources of VOCs in schools. For example, trimethylbenzene can be found in glues, paints, and carpets; *n*-hexane appears in rubber cement; toluene ap-

*(Continued on page 7)*

## Personnel Attend SWEP National Forum

Several representatives from Environmental Standards attended the Society of Women Environmental Professionals' (SWEP's) National Forum in Princeton, New Jersey, in October. The NJ Chapter of SWEP hosted the event whose theme was "Building For The Future — Energizing to Foster A Better Environment." Program topics included such issues as water quality, environmental health, sustainable energy, Title V compliance, and wetland restoration. The trend toward having a stronger,



more robust link between human health and environmental issues

was also addressed. Major presenters were Mr. Tom Fidler, Chief of the Land Recycling and Cleanup Program for PA DEP, and NJ DEP Commissioner Brad Campbell.

An interesting feature of this year's event was a silent auction organized by the NJ Chapter to support its scholarship fund for a deserving female undergraduate student. Environmental Standards was the successful bidder on a unique hand-crafted maple bowl that has been the subject of many conversations since being displayed in the lobby of our corporate headquarters.

---

## Manager Receives National Award

*(Continued from page 6)*

appears in glues, paints, and carpets; benzene is evident in glues, paints, and carpets; xylenes shows up in markers and floor polish; ethylbenzene is found in office furniture; and cumene is common in paints.

Conference organizers noted that this year's gallery "was better than ever," with large numbers of attendees browsing through the Poster Gallery in the conference's exhibit hall. Ms. Zvarick's poster drew attention from attendees who are currently or who have been dealing with other school-related issues. It was also interesting to note that this poster represented one of the first projects in southeastern Pennsylvania to function within the guidelines of the new vapor intrusion screening criteria issued by the PA DEP. Conference organizers intend to feature Ms. Zvarick's poster on the Conference website ([www.brownfields2004.org](http://www.brownfields2004.org)).

## Environmental Standards Adds Geoscientists To Meet Growing Department Needs

The growing Geosciences Department recently filled two key positions in order to meet multiple project demands and to continue providing high-quality services and work products to our clients. Environmental Standards is proud to introduce Senior Geoscientist Joseph Kraycik, P. G., and Staff Geoscientist Shaun Gilday as the newest members of our staff.

Mr. Kraycik joined Environmental Standards in October 2004 as a Senior Geoscientist with eight years of environmental consulting experience. He holds a B.A. in Geo-Environmental Studies from Shippensburg University of Pennsylvania and an M.A. in Earth Sciences from the University of Northern Colorado. Mr. Kraycik's previous experience at environmental and engineering firms in Colorado and Massachusetts includes responsible positions associated with high-profile projects such as the Rocky Mountain Arsenal in Colorado and the New Bedford Har-

bor Superfund Site in Massachusetts. He will be managing some of our larger and more complex site characterization and remediation projects as well as assisting with field auditing efforts. We are happy and excited to have Mr. Kraycik as a part of the Geosciences team and we welcome him and his family back to their home state of Pennsylvania.

Mr. Shaun Gilday also joined Environmental Standards last month. Mr. Gilday is a recent graduate of the University of Delaware and holds a B.S. in Environmental Science with minors in Geology and Mathematics. He will be assisting with sampling and other field activities and will be producing CAD and Geographic Information System (GIS) work products.

Additional employee needs in the department include entry-level geologists, as well as those with 3-5 years of experience. Visit our website ([www.envstd.com](http://www.envstd.com)) for more information.

Environmental Standards is extremely proud of Ms. Zvarick's award at the Brownfields Conference as well as her efforts as the newly appointed Treasurer of the Greater Philadelphia Society of Women Environmental Professionals and her recent appointment to the Pennsylvania Department of Environmental Protection Cleanup Standards Science Advisory Board Risk Assessment Subcommittee. In addition to her very busy professional life, Ms. Zvarick tied the knot this past summer and earned a black belt in taekwondo in October. Please join us in congratulating her on these accomplishments.

## Read *The Standard* Online

Are you trying to reduce the amount of paper on your desk? We can help with that effort by providing you with an electronic version of *The Standard*. Just visit us at [www.envstd.com](http://www.envstd.com), check out the News and Events section, and select "check here" to register. Your online subscription will begin with our next issue.

## USTFields Remediation

*(Continued from page 5)*

were subsequently removed. No railroad cars were found.

Following tank removal, adjacent soils were inspected to identify obvious impacts from potential leakage of the storage tank systems and investigations were conducted of both groundwater and soil at the site. Environmental Standards completed a comprehensive soil characterization sampling that included Geoprobe soil boring and the installation of four groundwater-monitoring wells, following excavation activities.

The baseline environmental report is pending, but initial findings show minimal environmental impact from the USTs. According to the work plan submitted to the PA DEP, this site qualifies as a Special Industrial Area, a designation under the PA DEP land recycling program's Act 2 program. Plans call for redevelopment of the site (currently in a commercially zoned area).



1140 Valley Forge Road  
P.O. Box 810  
Valley Forge, PA 19482-0810

Phone: 610-935-5577

Fax: 610-935-5583

[www.envstd.com](http://www.envstd.com)

E-mail: [solutions@envstd.com](mailto:solutions@envstd.com)

*Setting the Standards for  
Innovative  
Environmental Solutions*



# THE STANDARD

Don't forget to visit us on the web!

[www.envstd.com](http://www.envstd.com)

Did you know?

- A quarter of the world's plants are threatened by extinction by the year 2010.
- 293 defendants were charged with environmental crimes by the US EPA this year.
- Climate research groups anticipate that increased concentrations of greenhouse gases will increase US temperatures by 5-10 degrees before the end of the century.
- The US EPA estimates that 3.4 million cubic yards of contaminated soil and sediment and 1.9 billion gallons of groundwater will be cleaned up this year.