



# THE STANDARD

## New All Appropriate Inquiry Rule To Take Effect This Fall

Anyone involved in the business of property transfers, Phase I Environmental Site Assessments, and Brownfields redevelopment needs to take heed of the All Appropriate Inquiry (AAI) Rule that becomes effective on November 1, 2006. As reported in the Winter 2006 issue of *The Standard*, most assessment experts have been working under the standards set by the new AAI rule "for years." What remains to be seen, however, is the effect this regulation will have on organizations that have not adhered to these standards in the past.

The new rule, which was finalized last November, establishes specific regulatory requirements for conducting all appropriate inquiries into the previous ownership, uses, and environmental conditions of a property. These inquiries are to be conducted in conjunction with the qualification process for certain landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). After November 1, all parties involved must comply with the due-diligence requirements of the new rule to satisfy statutory requirements for conducting all appropriate inquiries.

Environmental Standards will continue to follow redevelopment activities in the wake of the new rule. If you have any questions, feel free to contact Environmental Standards Principal Geoscientist Gerry Kirkpatrick at 610-935-5577.

## Cost-Saving Considerations For Solid Waste Facility Corrective Actions

With an audience comprised of solid waste facility owners and operators, Environmental Standards Geologist Phillip D. McKalips, P.G., discussed the cost-saving considerations for landfill corrective actions during a recent



*Cost-savings in landfill corrective actions can be realized in the contractor selection process. Tasks such as drilling monitoring wells at the Rivanna Solid Waste Authority's Ivy Landfill in Charlottesville, Virginia, are subcontracted only after an extensive evaluation.*

meeting of the Virginia Chapter of the Solid Waste Association of North America (SWANA). For more than 40 years, SWANA has worked to provide education, to offer innovative ideas, and to communicate developments in solid waste facility management and operation to its 7,500-member organization.



Mr. McKalips is the Manager of the Environmental Standards office in Charlottesville, Virginia, and is managing our bioremediation project at the Rivanna Solid Waste Authority's Ivy Landfill. In that capacity, he has obtained significant knowledge and experience in dealing with remedial efforts and has worked to develop cost-effective solu-

tions to address our client's environmental issues.

In his presentation, Mr. McKalips cited the potential need for corrective action in Virginia due, in part, to the following statistics:

- There are 596 permitted landfills in Virginia.
- Five-hundred and seventy-seven of these landfills lack a Resource Conservation and Recovery Act (RCRA) Subtitle D liner system (designed to keep leachate from contaminating soil and groundwater below a landfill).
- Of the landfills without the RCRA-requisite liner system, only 247 are currently monitored for groundwater impacts.
- Less than 30 landfills have entered the Corrective Action Process, though the number has increased dramatically each year.

The number of landfills without a Subtitle D liner system is indicative of the fact that the majority of permitted landfills in Virginia are relatively old –

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## Think Again

# Environmental Standards To Celebrate 20<sup>th</sup> Anniversary Year

In 1987, Environmental Standards began operation in Valley Forge, Pennsylvania, as an environmental consulting company focused on Chemistry Quality Assurance and Toxicology and Risk Assessment. We quickly developed a national reputation as leaders in these fields.

But, if you think that today we are limited to just these specialty areas, think again. During the course of nearly 20 years, we have increased staff and expanded our offerings to include Geosciences, Information Technologies, and Logistics Auditing. We have also added a regional office in Charlottesville, Virginia. On the eve of our 20<sup>th</sup> anniversary year, Environmental Standards stands as the benchmark in the industry when it comes to quality of ser-

vice and cost-saving capabilities.

During the evolution of our offerings, our physical image has seen just a few changes. Our water drop – representing air, water, and soil – has stood the test of time. As part of our 20<sup>th</sup> anniversary year celebration, we are tweaking our look and re-introducing ourselves to the market. Beginning in January 2007, you will see that we have spent some time refining our logo, stationery, and marketing materials. As our business offerings continue to evolve, our “look” will be changing to keep pace. Stay tuned as we celebrate the new year with the offi-



cial unveiling.

When you think of Environmental Standards, you think of high standards in unique, problem-solving, cost-effective environmental consulting services. While time has caused clients to think again when it comes to the type and number of services we provide, no one thinks twice about our reputation in the industry.

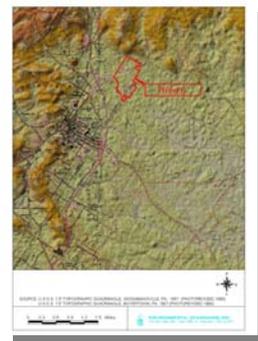
## GIS Topic of SWEP Luncheon Hosted By Environmental Standards

Environmental Standards hosted a Society of Women Environmental Professionals (SWEP) luncheon on the topic of Geographic Information Systems (GIS) in July. Over 20 individuals attended the seminar, which covered topics such as available software products, GIS-based data management and analysis at the desktop and on the web, regulatory data standards, and GIS data sharing by regulatory agencies and the public.

Speakers at the luncheon included Katie Lorenz of ESRI, Darryl Bigelow of the Pennsylvania Department of Environmental Protection (PA DEP), and Dennis Callaghan and Shaun Gilday of Environmental Standards.

SWEP is a national non-profit professional association of women involved or interested in environmental law, science, business, and policy. SWEP's Greater Philadelphia Chapter serves as a resource for members in the Philadelphia region, providing opportunities for professional development through educational programming, social events, mentoring, and public service.

Environmental Standards has been providing its clients with GIS resources for nearly 12 years. For more information about Environmental Standards' GIS services, contact Dennis Callaghan, Director of Information Technologies, at 610-935-5577.



## Cost-Saving And Solid Waste Facility Corrective Actions

*(Continued from page 1)*

permitted 20 years ago. Although many permitted facilities may not require significant corrective actions, a review of the numbers suggests that many facilities may eventually be required to enter into a corrective action program.

The first landmark toward corrective action is the identification of a non-compliant situation (exceedance of groundwater protection standards). This identification typically occurs during the course of normal landfill operation, maintenance activities, and detection monitoring. Next is characterization of the situation, which consists of an assessment of the activities relative to the non-compliant situation with the goal of identifying both the problem and its severity. A remedial evaluation follows, during which corrective measures are evaluated and a primary remedy method is selected. The final step, remediation, involves a corrective action plan and implementation of the selected remedy to correct the problem.

Once non-compliance issues have been identified and a plan of action has been initiated, landfill operators and owners want to know more about the cost of compliance. Periodic site inspections and detection monitoring of groundwater, materials testing, feasibility studies, a corrective action plan, and finally remediation are required; there can be significant costs associated with all of these measures. Cost-effective solutions start with landfill owners and

operators gaining functional knowledge of landfill operations and regulations. In addition, the contractor selection and management process is best handled through a competitive bidding process and contractor accounting systems.

Some often-overlooked cost-saving considerations are presented below:

- Data quality. High quality data allows for confidence in decision-making.
- Public participation. The public is your customer, neighbor, funding source, and a potential ally in regulatory negotiations.
- Regulatory involvement. Regulatory involvement streamlines the corrective action process, provides support in relationships with the public, and can also provide additional technical expertise.

Overall, it is important to understand the nature of any non-compliance issues that may surface at a landfill, determine the best corrective action, and implement that plan in a way that brings the landfill into compliance with cost-effective solutions.

For more information about this presentation, or to discuss any landfill-related issues in the Central Virginia area, contact Mr. Mckalips at 434-293-4039 or via e-mail at [pmckalips@envstd.com](mailto:pmckalips@envstd.com).

## Myth: Consultant Is Qualified To Pick And Subcontract Analytical Laboratory

## Reality: Top 10 Reasons To Contract Directly With Your Laboratory

An industrial entity with environmental liability is often required to collect samples for compliance or characterization purposes. These samples are typically submitted to a commercial analytical laboratory for select analyses, and the data generated from these analyses become the basis for critical project decision-making. If an *unqualified* consultant is assigned the important responsibility of selecting the “best” laboratory to provide project analytical services and naively selects a laboratory because it offers the “cheapest” pricing, the project can be compromised. The time and costs associated with trying to defend inferior data and/or re-sampling can be staggering!

Industrial parties should be aware that all laboratories (NELAC accredited or not) are not the same in terms of service, analytical offerings, and data quality. In fact, many analytical methods contain gaps and options that analytical providers use to justify “short cuts” that allow their “bare bones” pricing. Poor laboratory procurement judgment, coupled with the fact that data are usually questioned years after generation, has placed many industrial parties in high-liability situations – defending standard data when both the responsible consultant and his/her contracted laboratory are no longer in the picture.

Environmental Standards quality assurance chemists/specialists, who have contracted for analytical services on behalf of many industrial parties and who have conducted almost 800 on-site laboratory audits, have developed a Top 10 List of Reasons (technical and business) why industrial parties should contract *directly* with their analytical service providers.

### Top 10 List

**Number 10:** Your consultant does not learn analytical jargon on your dime. Properly designed and executed direct contracting will virtually eliminate ineffective and costly communications between the consultant and the laboratory.

**Number 9:** You receive superior service from the laboratory because your company is an important client. Your company (not your consultant) will be associated with the laboratory’s revenue, and the laboratory will be more responsive. If there are questions about the analysis or the data, the labo-

ratory will communicate directly with you, thereby allowing for more timely decision-making and precluding miscommunication via a third party.

**Number 8:** You do not pay the consultant mark-up. Many industrial parties pay in excess of \$3M/year in analytical costs (often reflected as line items on their consultants’ invoices). A consultant typically has a 5-15% pass-through charge for a laboratory subcontract (quite substantial for \$3M/year).

**Number 7:** You can reduce company analytical services costs through consolidated purchasing power. An industrial party can realize up to a 30% annual cost savings by contracting for comprehensive analytical services.

**Number 6:** You can receive advice and insight from qualified chemists (*your* laboratory vendors). Analytical method questions and issues can be addressed by laboratory chemists who know the limitations and the pros/cons of the methods.

**Number 5:** You can establish performance metrics for your consultants. Project consultants and laboratories often blame each other for project problems. For example, poor planning by a consultant is often attributed to laboratory inefficiencies; under contract to the consultant, the laboratory cannot reveal the “root cause” of the problem to you. This scenario usually results in your company funding a re-sampling event. Direct contracting makes both the consultant and the laboratory accountable to you.

**Number 4:** You can establish Laboratory Technical Requirements to monitor data quality. Company-specific technical requirements provide a mechanism and a benchmark by which data quality and laboratory performance can be measured (e.g., on-site audits, single-blind and double-blind performance evaluations studies, and rigorous data validation).

**Number 3:** You can control the quality of the analyses. An industrial party that may be using up to 50 separate laboratories (through consultants) to provide analytical services for its various environmental projects can mandate the quality of data generated and ensure data comparability among contracted laboratories by including rigorous Technical Requirements in the laboratory contracts.

**Number 2:** You retain *contractual* ownership of the data. If your consult-

ant pays laboratory invoices on your behalf, the laboratory (if still in business) is not obligated to provide your company any information whatsoever (especially, years after project data have been generated).

**And...Number 1:** You can manage *your* liability. Your company has the ultimate liability – not the laboratory, not the consultant. You will be in a position to work with *your* contracted laboratory to address any data quality or defensibility issues that may develop.

For almost 20 years, Environmental Standards has assisted Fortune companies to design, implement, and monitor corporate environmental laboratory programs and to reap the significant technical and business benefits identified above in the Top 10 List. If you would like to further explore the benefits of a direct laboratory contracting program, please contact Environmental Standards Technical Director of Chemistry Rock J. Vitale, CEAC, CPC, at 610-935-5577.

### Environmental Standards Mourns The Loss Of Our Friend And Colleague

It is with deep sorrow that Environmental Standards announces the passing of Susan Michell (Sue) on August 3, 2006. Sue, who was only 54, very courageously battled brain cancer for two years.

Sue joined the Information Technologies Department in 1998 as a Project Data Manager and quickly became an integral part of both our professional team and our family. Her work ethic was an inspiration to her colleagues, and our clients frequently praised her positive attitude, responsiveness, and dedication. Sue established many friendships during her eight years at Environmental Standards and will be remembered for her positive attitude, willingness to help others, and unparalleled work ethic.

Plans are underway for a memorial tree and bench on the grounds of our Valley Forge Headquarters in memory of Sue, a very exceptional individual and friend.

## *This Just In....*

### **Environmental Laboratory Announces Acquisition**

In a letter to clients dated September 25, 2006, Severn Trent Laboratories (STL) President and CEO Rachel Brydon Jannette announced that the entire STL network is being acquired by an H.I.G. Capital affiliate (H.I.G.). H.I.G. also owns the entire TestAmerica network. The merger/acquisition, which is expected to be completed by the end of the



year, will produce an environmental laboratory network with laboratories and service centers throughout the United States and a broad range of analytical capabilities. What effects this major acquisition will have on the commercial environmental laboratory market remain to be seen.



### **Maintaining An Accurate Project Database**

Environmental Standards was retained by a major petroleum company to review a significant amount of historical ("legacy") documents dated 1996 to 2000. The review was intended to ensure that data utilized for modeling or other project purposes were accurate and complete and to resolve discrepancies that could potentially influence proposed remedies at the site. Environmental Standards quality assurance chemists reviewed PCB and metals analytical data and compared the hardcopy data to the legacy data in the project database.

The database lacked critical information for a majority of the samples that had been entered in the database by various consultants. For example, several samples in the metals and PCB fractions did not have an associated Sample Delivery Group Number and the individual PCB and metals analyte/compound result fields for numerous samples were null in the database. In addition, the data qualifiers field and the reporting detection limit (RDL) fields for

the majority of PCB and metals data were null. This information was located in the hardcopy reports and entered into the project database.

In addition to identifying data in the hardcopy that was not reported in the project database, the Environmental Standards review also determined that the project database included sample identifications, results, and data qualifiers that were not consistent with the hardcopy reports; the project database was corrected accordingly. Lastly, the reported units for the PCB fraction of several samples in the database were revised to provide consistent project reporting and facilitate data comparability.

The meticulous efforts of the Environmental Standards chemists resulted in a more complete and accurate project database. For more information about data management in general or management of historical data, please contact Technical Director of Chemistry Rock J. Vitale at 610-935-5577.

### **New Financial Management And Communication Systems**

Environmental Standards has contracted Deltek Systems to install the industry's most widely used and well-recognized accounting and project management software. Shawn Campbell, Environmental Standards' Controller, is confident that this investment will benefit our clients in any number of ways.

Real-time financial tracking and the ability to advise clients of project financial status while they are on the phone with their project manager are two key features of the new financial management system. Mr. Campbell commented that "Our clients are expected by their customers to have this kind of information available at any time, and they now demand similar performance from us." The new management proc-

ess will place virtually all project data on the desktop of our managers, wherever they may be – here in Valley Forge, Pennsylvania, or Anchorage, Alaska.

New communications systems are being installed to replace the existing telephone system. New switching equipment and services will enhance Internet communications and web-based electronic data flow. Once installed, the system will reduce our operating costs, while allowing clients better, more consistent access to project data at the Valley Forge office. In addition, electronic data will be even more secure, and new system redundancy features will better facilitate data recovery in the event of a major incident.

### **IAQ/Mold Specialist Selected To Participate In Peer Review**

Senior Quality Assurance Chemist Stephen T. Zeiner, CEAC, CPC, CRMI, was selected by the Institute of Inspection, Cleaning and Restoration Certification Standard (IICRS) to participate in the peer review of the Second Edition of the Standard and Reference Guide for Professional Mold Remediation S520. The Standard and Reference Guide is intended to provide information about the remediation of mold-contaminated structures and contents and to assist individuals and entities working in the mold remediation industry in establishing and maintaining a consensus level of minimum professional performance. The Standard and Reference Guide provides information on the assessment of mold contamination, remediation of the contamination, and verification of cleanliness.

The Standard and Reference Guide was developed through a consensus standard development process, which brought together volunteers representing varied viewpoints and interests to achieve consensus on mold remediation issues. Once the Standard and Reference Guide was drafted, the IICRS solicited and selected individuals, including Mr. Zeiner, and entities to peer review the document. The Standard and Reference Guide is expected to be published in early 2007.

### **Ruth L. Forman To Speak At Eastern Analytical Symposium And Exhibit**

The **Eastern Analytical Symposium and Exhibit (EAS)** will be held November 13-16, 2006, at the Garden State Convention Center in Somerset, New Jersey. The theme for the 2006 EAS is "Celebrating the Diversity of Science." The main topical areas that will be included in the 2006 EAS are pharmaceutical analysis, nanomaterial characterization, process analysis and chemical sensor technology, forensic science, and a celebration of the 60<sup>th</sup> anniversary of nuclear magnetic resonance spectroscopy. Ms. Ruth L. Forman, Logistics Auditing Principal of Environmental Standards, is an invited speaker at the 2006 EAS for the technical session entitled "Current Developments in Quality Assurance." The title of Ms. Forman's presentation is "Top 10 Reasons to Have Your Product Purity and Specification Testing Laboratory Audited: A Glance at Typical Audit Findings in the Product Testing Laboratory Industry."

## Geologist Co-Authors Paper On Floodplain Sediment Deposits

Geoscientist Maverick Raber of the Environmental Standards Charlottesville, Virginia, office has co-authored a paper entitled "Mineralogical Indicators of Alluvial Sediment Sources in the Cape Fear River Basin, North Carolina" that has been accepted for publication later this year in the highly regarded refereed journal *Physical Geography*.

Authoring the paper along with Mr. Raber were Michael M. Benedetti, Michael S. Smith, and Lynn L. Leonard, all with the Department of Geography and Geology at the University of North Carolina Wilmington.

The authors investigated recent floodplain deposits throughout the Cape Fear River basin in North Caro-



lina – specifically, downstream changes in mineralogy and the signature of alluvium from Piedmont and Coastal Plain sources that receive sediment from rivers along the southeastern coast of the United States. Their analyses concluded that sediment transport in the Coastal Plain is highly dependent on particle size. According to their findings, sand in the estuary is derived from local “blackwater” sources, but “brownwater” rivers that drain Piedmont sources deliver much of the fine silt and clay.

Mr. Raber joined Environmental Standards in January 2005 and has been directing the *in-situ* bioremediation project underway at the Rivanna Solid Waste Authority former landfill site in Charlottesville.

## World Health Organization Re-Evaluation Of Dioxin TEFs Recently Published

Over the last 15 years, the World Health Organization (WHO) has established and regularly reviewed toxicity equivalent factors (TEFs) for dioxin and dioxin-like compounds. The TEF values were re-evaluated by WHO in 2005, and the results were recently published in *2005 World Health Organization Re-Evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds* (Toxicological Sciences, July 2006).

Polychlorinated dibenzo-p-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), and polychlorinated biphenyls (PCBs) are recalcitrant organic contaminants throughout the world. Many of these compounds are not metabolized in vertebrate species, including humans; as a result, biomagnification occurs through the food chain and high tissue concentrations can be found in top predator species. The toxic and biological effects of these compounds are mediated through the aryl hydrocarbon receptor (AhR), a cytosolic receptor protein present in most vertebrate tissues with a high affinity for 2,3,7,8-substituted PCDD/PCDFs and some non *ortho*-substituted PCBs.

Hundreds of dioxin/furan congeners are formed during synthetic processes such as combustion and certain industrial activities. Human exposure results in the uptake of a large number of these compounds and humans retain dozens of PCB congeners in tissues, blood, and milk. Risk assessment of these compounds involves a complex mixture of PCDD, PCDF, and PCB compounds sharing a common mechanism of action; consequently, human health risks should not be assessed for only one specific congener.

During the last few decades, data from many experimental studies with mixtures of dioxins/furans have been consistent with an additive model of toxic effects. Due to this generally accepted additivity, the toxic equivalency concept was developed during the mid-1980s. This concept uses the relative effect potency (REP) determined for individual PCDD, PCDF, and PCB compounds for producing toxic or biological effects relative to a reference compound, usually 2,3,7,8-TCDD. The total Toxic Equivalent (TEQ) is defined as the sum of the products of the concentration of each compound multiplied by its TEF value and represents an estimate of the total 2,3,7,8-TCDD-like activity of the dioxin/furan/PCB mixture.

Since the early 1990s, the WHO has convened expert panels whose objectives were to organize the TEFs for dioxin and dioxin-like compounds on the international level and to provide recommendations to national regulatory agencies. Prior to 2005, two WHO evaluations of the TEFs were conducted. In 1993, the first evaluation was completed and resulted in human and mammalian WHO TEFs for all 2,3,7,8-PCDDs and PCDFs; the evaluation also recommended a TEF value for several PCBs.

**The changes in the 2005 TEF values should have a limited impact on the total TEQ of a biological sample.**

A WHO TEF evaluation was again conducted in 1997 and led to the revision of several mammalian TEF values of important congeners and withdrawal of the di-*ortho* PCBs from the TEF concept for dioxin-like compounds. In addition, the first WHO TEF values for birds and fish were proposed.

In June 2005, a third WHO expert meeting convened in Geneva, Switzerland, to re-evaluate current mammalian TEF values. The results of this meeting included revised TEF values that now are proposed as WHO 2005 TEFs for human risk assessment of dioxin/furan/PCB mixtures.

At the 2005 meeting, TEF values were re-reviewed in light of new data published in a refined TEF database, unweighted REP distributions from this database, expert judgment, and point estimates of REPs. Historically, TEFs were assigned in increments of 0.01, 0.05, 0.1, etc., but the 2005 WHO TEF review panel for the re-evaluation decided to use half order-of-magnitude increments on a logarithmic scale of 0.03, 0.1, 0.3, etc.

Compounds with revised 2005 TEFs include OCDD (changed from 0.0001 to 0.0003); 1,2,3,7,8-PeCDF (changed from 0.05 to 0.03); 2,3,4,7,8-PeCDF (changed from 0.5 to 0.3); and OCDF (changed from 0.0001 to 0.0003), among other *ortho*- and mono-*ortho* substituted PCBs. In general, the changes in the 2005 TEF values should have a limited impact on the total TEQ of a biological sample. According to the 2006 report, the TEF changes reflect an overall decrease in TEQ ranging between 10 and 25% across eight different biotic samples.

## Improved NPDES And Drinking Water Compliance Paper Set For December

The development and implementation of a multi-faceted sampling and analytical quality assurance (QA) program to improve NPDES and drinking water compliance is the topic to be presented by Environmental Standards Senior Quality Assurance Chemist Lester J. Dupes, CEAC, at the **18<sup>th</sup> Annual Northwest Environmental Conference and Tradeshow (NWEC)**, December 7 and 8 in Portland, Oregon.

Joining Mr. Dupes for the presentation will be co-author Judy Kitagawa, Environmental Scientist, BP Exploration Alaska (BPXA); Environmental Standards Rock J. Vitale, CEAC, CPC, Technical Director of Chemistry/Principal, co-authored the paper as well.

The program described in this presentation was designed for the BPXA North Slope camp facilities to ensure that drinking water and wastewater compliance samples are properly collected, documented, and submitted to the contracted laboratory for appropriate analysis. The goal of the program is the generation of high-quality data for compliance reporting in accordance with facility-specific permits. Overall, the presentation will show how this program has reduced the number of non-compliance issues due to sampling and analytical errors and has placed a greater emphasis on continuous improvement within the BPXA organization.

The NWEC, which is the largest environmental conference held in the Pacific Northwest, is dedicated to improving the environmental performance of Northwest businesses. For more information about the conference, visit [www.nwec.org](http://www.nwec.org).

### Laboratory Acquisition Announced

MPI Research announced the acquisition of Exygen Research in State College, Pennsylvania, on October 2, 2006. MPI Research is a full-service contract research organization that provides a variety of non-clinical research services. The MPI news release indicated that Exygen Research will continue operations from its present location and will assume the management of all analytical services including those offered at the MPI Mattawan, Michigan, site.

## Remodeled Field Operations Building Enhances Work Preparation Activities

Environmental Standards continued internal investments with a "makeover" of the Geosciences Department Field Operations Building during the summer. Major improvements to the building included the installation of an improved ambient air management system and the enhancement of both the equipment maintenance areas and the sample glassware preparation and sample shipping/management areas. Environmental Standards field personnel will be better able to support client sampling events by employing advanced equipment and sample management processes.

Our clients often acknowledge the high-quality work of our professionals in the field, and regulatory agencies expect us to be thorough and well equipped in the field. Many clients,



however, are not aware of how much preparation goes into a well-managed field program. Director of Geosciences Dan Claycomb recently reflected about his nearly 20 years of sampling and remediation work and commented that "it has become more and more important that our field operations facility keep pace with the increasingly stringent demands of environmental field work."

Clients may never actually see the Field Operations Building, but what they will see is the high-quality field work made possible by the preparation activities performed at this technologically advanced facility. Environmental Standards is dedicated to providing our clients with the very best field services in the industry and this investment will ensure that we are able to do so.

## NJ DEP Returns Sites To Contaminated Properties List

The New Jersey Department of Environmental Protection (NJ DEP) has returned 1,846 sites to the state's list of contaminated properties. It is not known why these properties had been removed from the list of approximately 14,000 known and suspected contaminated sites in New Jersey.

The contaminated and potentially contaminated properties reinstated to the list include approximately 50 landfills, 100 chemical plants, a recently closed airport, a former Nike missile base, homes, restaurants, and schools.

This move followed the discovery of high levels of mercury in the ground and air at a day care center located in Franklin Township, Gloucester County, New Jersey. It was discovered that the day care center had been built on the site of an abandoned thermometer factory. This location was still on the list of contaminated sites when the childcare facility was built in 2004 but was later dropped from the list, even though no remediation had taken place at the site.



The NJ DEP was in the process of reassessing sites where no remediation work had been completed when it discovered the situation at the day care center. NJ DEP Commissioner Lisa P. Jackson has been quoted as saying that "until a place is cleaned, it should remain on the list."

Properly conducted All Appropriate Inquires (AAI) is one good way of identifying past property uses and possible environmental liabilities associated with those uses. In the Franklin Township situation, there is no indication that a proper AAI was ever undertaken. The fact that a site is not explicitly listed on a state's hazardous waste site database does not mean that the property is "fit for any use or particular purpose." As is the case so often in life, "buyer beware" applies to commercial and residential property purchases alike.

While the costs associated with a properly performed Phase I Environmental Site Assessment can be difficult for real estate professionals to justify, the cost of not performing a proper Phase I can be devastating.

## Personnel To Participate In Brownfields 2006 Boston Revolution

Environmental Standards is once again a sponsor of the **Annual National Brownfields Conference**, this year scheduled for November 13-15 in Boston, Massachusetts. The focus of **Brownfields 2006** is the revolution in redevelopment, remediation, redesign, and revitalization of contaminated, under-utilized, and abandoned properties. The conference will feature plenary speaker US EPA Administrator Stephen Johnson, panel sessions and roundtable discussions, and real-world project showcases.

Also as in previous years, Environmental Standards professionals will be participating in key sessions throughout the conference. Principal Geoscientist Gerry Kirkpatrick is serving as a panelist in a session entitled "Brownfields Tea Party: Waterfront Redevelopment," scheduled for Tuesday, November 14

from 8:45 a.m. to 10 a.m. Waterfront property is valuable real estate in many communities and can be redeveloped for a variety of uses; however, revitalizing this land poses particular challenges. This roundtable session will engage practitioners that have been involved with waterfront redevelopment in Philadelphia, Camden, New Jersey, New York City, and, of course, Boston.

Environmental Standards Manager of Risk Assessment & Toxicology, Kathy Zvarick, is also making a return appearance as a Brownfields presenter, this time during a session entitled "Reading, Writing, and Remediation: Siting Schools on Brownfields." This session, scheduled for Wednesday, November 15 from 9 a.m. to 10:15 a.m., will address the feasibility, challenges, and benefits of siting schools or other youth-oriented facilities on brownfields

sites. Joining Ms. Zvarick on the panel will be:

- Tarah Somers, ATSDR (moderator)
- Ronald Carper, Jr., P.G., New Jersey Schools Construction Corp.
- Brendan Boyle, Michigan Department of Community Health ATSDR
- Steven Fischbach, Rhode Island Legal Services
- Charles Lyons, Jr., City of Camden
- Stacey Gonzalez, Center for Health, Environment and Justice.

While the conference agenda addresses serious issues regarding brownfields redevelopment, it would not be an Environmental Standards-sponsored conference without some time set aside for networking and socializing with other brownfields professionals. Plans are in the works for opportunities to get out and experience some of Boston's fine dining and entertainment establishments. Check with our brownfields professionals while at the conference for more details.

## Fall Conference Schedule Full Of Speaking Opportunities For Environmental Standards

Topics ranging from sediment project management to brownfields redevelopment are the focus of local, national, and international environmental industry conferences at which Environmental Standards will be presenting materials or networking as attendees during the upcoming fall months.

**22<sup>nd</sup> Annual International Conference on Soils, Sediments, and Water, October 16-19, University of Massachusetts at Amherst.** Authors David R. Blye, CEAC, Quality Assurance Specialist/Principal, and Rock J. Vitale, CEAC, CPC, Technical Director of Chemistry/Principal, will speak on the topic of "Analytical Considerations for Applying Method 1668A for PCB Analysis on Soil and Sediment Investigations." The work presented will summarize the historic development of US EPA Method 1668A, including the results of the agency's inter-laboratory validation study to validate the method, as well as the ramifications and current limitations of this analytical technique. Conference attendees should also look for Mr. Callaghan's "Volume and Mass Estimation Methodology" in poster form.

**The Society of Environmental Toxicology and Chemistry (SETAC) 27<sup>th</sup> Annual North American Conference, November 3-9, Montreal, Quebec, Canada.** SETAC planners selected Mr. Vitale to lead a session on

"Innovative Planning and Quality Oversight for the Characterization of Complex Sediment Investigations." During this session, speakers will address the challenges associated with planning, executing, and performing quality sediment management programs that maximize information usability. Conference organizers chose eight abstracts for this session, including two submitted by Environmental Standards personnel. Daniel P. Claycomb, P.G., Director of Geosciences/Principal, will present a paper on "The Role of Field Auditing in Environmental Quality Assurance Management"; he will discuss the value of improving the performance of field consultants responsible for sample collection as a way of assuring the quality of environmental data. Conference organizers have also asked Mr. Callaghan to give his presentation on "Volume and Mass Estimation Methodology."

**PA Chamber of Business and Industry's Key Environmental Compliance Issues Conference, November 8, 2006, Valley Forge, Pennsylvania.** Environmental Standards personnel will be on hand to exhibit our services unique to environmental compliance issues, as well as attend sessions during which such topics as residual waste, water, spill prevention plans, storage tanks and air issues will be discussed.

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## Softball Team Posts A Perfect Record For 2006 Season

Contrary to their reputation for excellence in the environmental community, members of the 2006 employee softball team established a different kind of reputation. Although perfection is always a good goal, a "perfect losing record" is not what we had in mind at the beginning of the season – no wins, 13 losses. Nonetheless, our team has already vowed to not repeat that performance next season. Although the players were devastated after every loss, post-game activities ensured that our team would never quit.

Environmental Standards President David Blye spoke on behalf of the team and noted that while the team never did have that "winning feeling" on the field, it was the off-field post-game meetings that employees (both fans and players) found most enjoyable. When asked about his own performance in the final softball game of the season, Mr. Blye echoed the sentiment of most players when he replied "The softball game, what softball game?"



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# THE STANDARD

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Did you know?

- The US EPA estimates that up to 40% of the lead in landfills comes from discarded electronics, much from the shielding that is incorporated in cathode ray tubes from televisions and computer monitors.
- Americans generate trash at the rate of 4 pounds per day per person, which amounts to 600,000 tons of trash per day or 210 million tons per year.
- Niagara Falls (US) have receded approximately 7 miles during the last 10,000 years due to erosion undermining the base of the shale cliffs at the falls.