THE STANDARD

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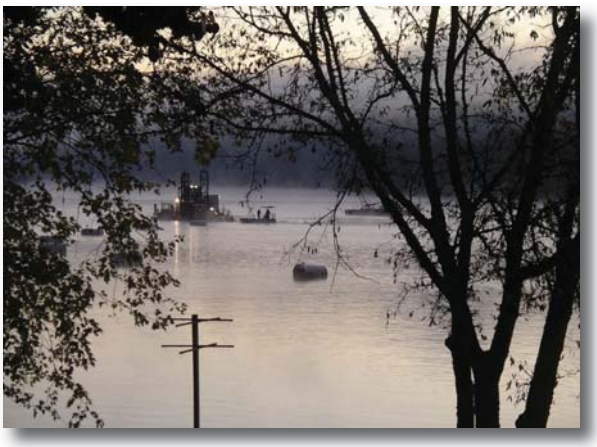
Progress Continues At TVA Kingston Fly Ash Cleanup

More than 1 year after the fly ash release at the Tennessee Valley Authority (TVA) facility in Harriman, Tennessee, Environmental Standards continues to provide program-wide quality assurance (QA) oversight and enterprise-level data management to TVA in support of the cleanup efforts. As reported in an article appearing in *USA Today* on January 8, 2010, Environmental Standards has a 3-year, $10.5-million contract with TVA. Environmental Standards' professionals provide on-site QA oversight for the groundwater, surface water, sediment, ash, air, and biota sampling activities; provide on-site chemistry/analytical trouble-shooting; perform analytical data validation; prepare (or review) work plans, sampling plans, standard operating procedures (SOPs), and other quality documents; manage the flow of analytical data from the laboratories; and generate a variety of data reports for TVA and regulatory agencies. Through early January 2010, thousands of samples have been collected and analyzed to address the release; the following figures may provide a perspective of the volume of samples collected to date.



Dredging activity on the Emory River.

- 2863 - Surface water samples
- 1420 - Air (fixed-base) samples
- 598 - Biota samples
- 78 - Ash samples
- 48 - Groundwater (spring and well) samples
- 57 - Soil/sediment samples

Released coal ash continues to be dredged from the rivers adjacent to the Kingston facility. As of mid-January, 134 trains (containing 85 - 110 rail cars each) have transported a total of 1,240,500 tons of ash off site for disposal. Dredging on the Emory River began in March 2009 and the cumulative total volume of ash dredged from the Emory River through January 10, 2010, is 1,765,230 cubic yards.

It is anticipated that the cleanup activities at the Tennessee site will continue through 2011.

(Sources: TVA's Kingston Ash Recovery Project Weekly Report, January 4-10, 2010; US EPA's Kingston Fly Ash Release website: www.epakingstontva.com; and TVA's website: www.tva.gov/kingston/.) ■

Myth Busters

Offered By Kevin Renninger, Director Of Business Development

From time to time, the sales staff and project managers at Environmental Standards receive inquiries that make us aware of common misconceptions about *"who we are"* and *"what we do."* Most of these make us chuckle. As the laughter dies down, however, we do our best to overcome these initial impressions. For the sake of this brief article, I will invoke a literary license and refer to these misconceptions as "myths." What follows is a meager attempt in a career-long battle to dispel the top five myths about Environmental Standards.

Myth #5 - Environmental Standards is a laboratory.

Fact: Although we employ 24 environmental chemists, we are NOT an analytical laboratory – NO lab coats, NO GC/MS instruments, NO LIMS, NO missed turn-around-times (just hav-

(Continued on Page 2, see "Myth Busters")

Featured Topics

ENVIRONMENTAL STANDARDS™

Low Energy Star Score Prompts Changes At Environmental Standards

As reported in the previous edition of *The Standard*, Environmental Standards is pursuing improved sustainability in our own business practices and policies in pursuit of a Leadership in Energy and Environmental Design (LEED®) Certification for our office headquarters in Valley Forge, Pennsylvania. With two LEED Accredited Professionals (APs) on staff, we are currently navigating through the LEED for Existing Buildings Operation and Maintenance (EBOM) process.

As part of the process, we recently determined our building's Energy Star Score, which was surprisingly low. Like household appliances, buildings can have Energy Star Ratings. Based on US EPA's National Energy Performance Rating System, a building's performance is determined by comparing its energy use to other, similar types of facilities. The US EPA rating system accounts for differences in operating conditions, regional weather data, and other relevant considerations. Buildings are rated on a scale of 1 - 100, and buildings that score in the top 25th percentile (a score of 75 or above) earn the Energy Star designation. Under the LEED EBOM rating system, existing buildings are required to score at least a 69 as a prerequisite to applying for LEED certification. Points that count toward LEED certification are earned when the Energy Star Score is at or above 71, with an increasing number of points available for higher scores. The low Energy Star Score for our building was, at first, disappointing; however, we know the low score indicates that we could realize significant savings on our energy bill.

Environmental Standards is in the process of reviewing practices and equipment options that will improve our energy performance. For example, we have requested that employees turn off their office lights when they anticipate being out of their offices for more than one-half hour. While this practice takes some getting used to, many employees are catching on. We hope to issue a similar request for computers and monitors upon upgrading some of our in-house server equipment. We are also closely evaluating our lighting systems and have recently been awarded a PA Small Business Energy Efficiency Grant to assist with retrofitting our dated T-12 fluorescent light fixtures to accommodate more energy-efficient T-8 lamps. Furthermore, we are investigating the use of occupancy sensors, daylight sensors, and solar power for our exterior lights and signage.

To educate ourselves about LEED, several employees recently toured the SKF USA, Inc. building in Kulpsville, Pennsylvania. Environmental Standards assisted SKF by providing Phase I and Phase II site assessment services for this property a few years ago. The Kulpsville SKF building is LEED Gold Certified and includes such features as Forest Stewardship Council-certified flooring, high-efficiency lighting, carbon dioxide monitoring, automatic daylight controls, native landscaping, and preferred parking for fuel efficient vehicles. The tour was a wonderful opportunity for Environmental Standards to reconnect with a great client and learn about the strides that were taken to create an environmentally friendly facility on a property we helped to clean up. ■

(Myth Busters, Continued from Page 1)

ing a little fun here). Rather, we are industry's "watchdog" over the quality and service procured from hundreds of environmental laboratories around the world.

Myth #4 - Environmental Standards manufactures analytical standards.
Fact: The origin of this myth is easy to understand – after all, it is in our name. We do not, however, produce or distribute analytical standards. To the contrary, our mantra is "we set the (performance) standard for innovative environmental solutions." That is, our clients rely on us to be their "think tanks" and to ensure that they implement optimal solutions to their environmental challenges.

There are no lab coats or analytical instruments to be found at Environmental Standards.

Myth #3 - Environmental Standards has only a single office.
Fact: In 2005, Environmental Standards opened a second office in Charlottesville, Virginia, and will be opening a third office in Tennessee this year. Not to worry, we are not stopping there. Stay tuned for additional announcements in 2010.

Myth #2 - Environmental Standards is strictly a Data Validation (DV) firm.
Fact: This is the toughest myth to bust. While DV services played an instrumental role in Environmental Standards' initial growth and gained us a national reputation, DV is, today, only a portion of the firm's chemistry consulting offerings. Further, our 17 Geosciences professionals and 11 Information Technologies (IT) professionals provide a wide suite of environmental consulting services to our clients, including site assessments, remediation oversight, environmental data management, landfill remediation, and most recently, Greenhouse Gas data management.

Myth #1 – The name of Environmental Standards' CEO is not really "Rock."
Fact: Validated by an original birth certificate - it's a Brooklyn thing! ■

Phoenix Award Received At Brownfields 2009

Since the inception of the US National Brownfields Conference in 1996, Environmental Standards has been attending and presenting at the conference, which is held every 12 to 18 months in a different US city. The conference is dedicated to brownfields cleanup, redevelopment, and the many issues associated with land revitalization. Brownfields 2009 was held November 16-18, 2009, in New Orleans.

As in years past, Environmental Standards Principal Geoscientist Gerry Kirkpatrick, P.G., was asked to participate on an expert panel. He joined environmental attorney Brian Clark of Buchanan, Ingersoll and Rooney; Colleen Kokas of New Jersey DEP; Charles Gallub of the Bellmawr Waterfront Development; and George Vallone of The Hoboken Brownstone Company in a discussion of the term "environmental sustainability" – what the term means in practice to a brownfields redevelopment project. The session entitled "Principles and Perspectives on Sustainable Redevelopment" was attended by developers, municipal leaders, US EPA Brownfields grantees, and environmental consultants.

Brownfields 2009 differed in one respect. Environmental Standards had the privilege of joining the Lancaster County Planning Commission (LCPC), the Inner City Group, High Companies, and Johnson, Mirmiran & Thompson (JMT) in accepting the 2008 Phoenix Award for Community Impact. Roberto Clemente Park in Lancaster, Pennsylvania, is the award-winning project.

Project stakeholders accept the Phoenix Award. From left to right: Mary Gattis-Schell (LCPC), Gerry Kirkpatrick, P.G. (Environmental Standards), Ann Toole (Toole Recreation Planning), Jane Pugliese (LCPC), Robin Stauffer (High Companies), Andy Mears (JMT), and James Cowhey (LCPC).

The Phoenix Awards were created in 1997 to recognize individuals and groups that used innovative solutions to remediate environmentally impacted sites while encouraging economic development and creating community assets. The projects that are awarded this honor are meant to be showcased as models for other communities around the world.

Roberto Clemente Park is a vital community hub featuring a park and playground. Located on a former industrial site, which once hosted an umbrella handle manufacturer and dry cleaner, Roberto Clemente Park is a shining example of how the US EPA's Brownfields grant program can touch a community in a meaningful way. This project was not merely about removing environmental impacts from the site - it was also about providing the neighborhood a recreational space in which to congregate. ■

Conferences: January - May 2010

Sustainable Remediation Forum (SURF) Meeting 12, January 26-27, 2010, Sacramento, CA. Representatives from Environmental Standards attended.

Drexel University's Green Cleanup Symposium, February 10-11, 2010, Philadelphia, PA. Representatives from Environmental Standards will attend.

AEHS Meeting & International Conference on Soils, Sediments, Water, and Energy, March 15-18, 2010, San Diego, CA. Representatives from Environmental Standards will attend.

East TN Environmental Conference, March 16-17, 2010, Kingsport, TN. Senior Quality Assurance Chemist Jennifer N. Gable will present "Educating Analytical Buyers to Balance Cost and Data Quality When Addressing Environmental Liabilities"; Senior Geoscientist Stephen D. Brower, P.G., will present "Remediation and Cooperation at the Former Bishop Tube Facility"; and Geoscientist Shaun M. Gilday will present "Assessing the Associated Carbon Footprint for the Purposes of Selecting Bioremediation Over Traditional Remediation Strategies."

21st Annual Environment Virginia Symposium, April 6-8, 2010, Lexington, VA. Representatives from Environmental Standards will attend.

15th Annual Landfill Symposium and Planning & Management Conference, April 12-17, 2010, Reno, NV. Senior Consulting Geoscientist/Principal Philip D. McKalips, P.G., will present "Innovative Horizontal Drain Technology to Facilitate Landfill Gas Management" and Environmental Standards will be exhibiting at this conference.

Sediment Management Work Group (SMWG) Spring Meeting, April 13-14, 2010, Chicago, IL. Representatives from Environmental Standards will attend.

Texas Commission on Environmental Quality (TCEQ) Environmental Trade Fair and Conference, May 4-5, 2010, Austin, TX. Technical Director of Chemistry/Principal Rock J. Vitale, CEAC, CPC, will present "Rapid and Sensitive Analysis for 1,4-Dioxane in Bioremediation Test Samples." Environmental Standards will have a booth at the trade fair; stop by and visit!

International Council of Shopping Centers (ICSC) Global Real Estate Convention (RECon), May 23-25, 2010, Las Vegas, NV. Representatives from Environmental Standards will attend. ■

Geoscientists Support Horizontal Drilling Project

Several geological formations in northern and western Pennsylvania, including the Marcellus Shale and Oriskany Sandstone, have been receiving considerable media attention. It has long been known that these formations contain vast reserves of natural gas; however, extraction and utilization of the natural gas was considered cost-prohibitive until recent advancements in horizontal drilling technologies. Natural gas in these formations typically exists between 5,000 - 8,000 feet below ground surface (bgs) - both vertical drilling and horizontal drilling are required to effectively access the gas reservoirs. As drilling and extraction of natural gas in these previously untapped formations increase, so does the concern of local residents about what impacts the drilling may have on their potable water wells.

To protect groundwater quality, Pennsylvania law requires drillers to case and grout gas production wells through fresh water aquifers before advancing drilling tools into the deeper natural gas-containing formations. The casing protects groundwater from pollutants inside the well and also prevents surface water from entering the well and impacting groundwater. Despite these precautions, impacts to groundwater quality and/or flow sometimes result from natural gas drilling. The Pennsylvania Department of Environmental Protection (PA DEP) is responsible for reviewing and issuing drilling permits, inspecting drilling operations, and responding to complaints about water-quality problems.

Environmental Standards was recently associated with a project in western Pennsylvania that involved the conversion of a natural gas production field located in the Oriskany Sandstone Formation into a natural gas storage facility. The project consisted of the installation of approximately 20 natural gas injection wells to depths greater than 5,000 feet bgs. Our client took the local residents' concerns very seriously – concerns that changes observed in water quality (primarily increased turbidity and effervescence) could be related to the drilling activities. Environmental Standards was contracted to conduct pre-drilling and post-drilling water-quality monitoring at residential wells located near drilling operations. The monitoring data will allow a comparison of water quality before and after drilling and may also help to determine whether or not the impacts are, in fact, related to the drilling or to some other factor. ■

Industrial Site Reuse Program Grant Award

During the Pennsylvania Department of Environmental Protection (PA DEP) Annual Brownfields Conference held in Harrisburg in September 2009, the Altoona Blair County Development Corporation (ABCD Corp.) was the award recipient of an Industrial Site Reuse Program (ISRP) grant - surpassing two other well-qualified applicants. The program, entitled "Extreme Makeover III – Redeveloping PA" provided an opportunity for the three candidates to present their projects for consideration under the Commonwealth's ISRP; ABCD Corp. made the best project presentation and pitch for this publicly funded grant.

This grant winning project is a partnership of ABCD Corp. and a private developer, 700 Chestnut Avenue, LLC, within the Altoona-Blair County area. The project site consists of 15 separate parcels, including the subject parcel located at 700 Chestnut Avenue. Based upon the Phase I and II assessments, constituents that exceeded the PA DEP Statewide Health Standards in soil and groundwater were identified. Based on this information, Environmental Standards developed, submitted, and gained PA DEP approval of a comprehensive work plan for the assessment of the 700 Chestnut Avenue property, which is part of a $75-million redevelopment effort in the City of Altoona, Blair County.

Winning the award provided ABCD Corp. with a grant in the amount of $46,000 to assist in the completion of the assessment activities presented in Environmental Standards' work plan to determine the nature, extent, and the risks involved with the redevelopment effort. Environmental Standards began field investigation activities in early February and anticipates submitting a report of findings by late spring or early summer 2010. ■

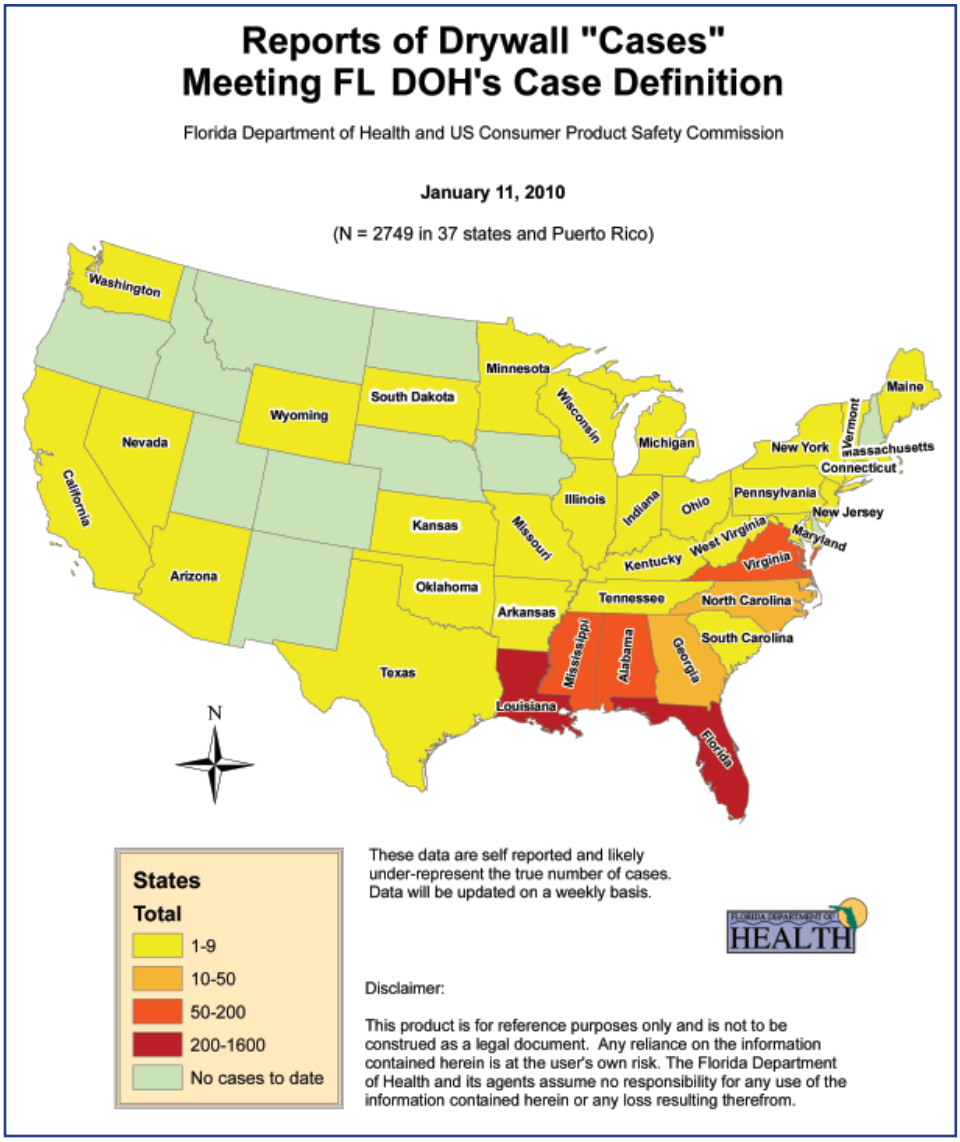
Corrosive Chinese Drywall

What is the "fuss" about Chinese drywall? It appears that during the construction boom following damages from Hurricane Katrina and production of new homes, there was a shortage of drywall in the United States and drywall was imported – some from China. The Consumer Products Safety Commission (CPSC) estimates that Chinese dry wall was used in the construction of 60,000 homes and that some, but not all, drywall imported from China was contaminated.

What contaminant was in Chinese drywall? The CPSC performed a study of 51 homes (41 homes with corrosion and 10 control homes) between July 27 and September 30, 2009, to identify the contaminant. The CPSC study found that hydrogen sulfide was detected below irritant levels in the homes with corrosion but not in the control homes. In addition, below irritant levels of formaldehyde were identified in all 51 homes. The long-term effects of below irritant levels of hydrogen sulfide and formaldehyde have not been determined. The source of the hydrogen sulfide in the drywall is suspected to naturally occur in the gypsum used to produce the drywall and not the process itself.

The corrosion has been documented to impact exposed copper wiring, plumbing, and other exposed metals and has been

(Continued on Page 5, see "Drywall")



(Drywall, Continued from Page 4)

reported to be severe enough in some cases to cause HVAC system failures. As far as can be determined, no fires have been attributed to the corrosion of wiring. It appears that temperature, humidity, and air exchange rates are determinative factors in the corrosion; accordingly, buildings in hot moist climates are at highest risk.

The Florida Department of Health (FL DOH), which has been one of the leading agencies in the investigation of corrosive dry wall (www.doh.state.fl.us/environment/community/indoor-air/drywall.html), has put together a map (depicted above) detailing the reported corrosive drywall complaints. The CPSC has been the lead agency in the investigation of the homes with complaints regarding corrosive drywall (www.cpsc.gov/info/drywall/index.html).

According to the United States District Court Eastern District of Louisiana website (www.laed.uscourts.gov/Drywall/Introduction.htm), "The Judicial Panel on Multidistrict Litigation assigned this multidistrict proceeding to Judge Eldon E. Fallon of the United States District Court for the Eastern District of Louisiana to coordinate discovery and other pretrial matters in the pending cases." More than 50 cases have been determined to be associated with the corrosive drywall.

Many different techniques for the remediation of the corrosive drywall are available. Before implementing remediation, you should consult with an indoor air professional to ensure that the remediation technique is appropriate for your situation. ■

"Our Data Are Good – We Use An Accredited Laboratory"

In accordance with a variety of environmental regulations, industrial parties are required to collect samples for compliance or characterization purposes. These samples are typically submitted to a commercial analytical laboratory and the data generated become the basis for critical project decision-making. There are thousands of commercial environmental laboratories in the United States, many of which tout the fact that they are accredited. Industrial parties should be aware that laboratories (accredited or not) are not the same in terms of analytical offerings, compliance with methods, exercising "best practices," and most importantly, generating legally defensible data.

State laboratory accreditation, particularly in those states that have endorsed National Environmental Laboratory Accreditation (NELAC), has some meaning relative to the quality management systems that are practiced at the laboratory; however, the possession of a NELAC, DoD, or any other accreditation for that matter should only be considered a preliminary screening tool with regard to the selection of a laboratory. More to the issue, laboratory accreditation should not be interpreted to mean that the laboratory is able to meet the analytical needs in properly addressing environmental liabilities.

Prior to contracting with environmental laboratories, corporate prudence dictates that industrial parties (or their qualified consultants) perform due diligence on their contracted laboratories, particularly if the laboratory will be analyzing samples upon which critical decisions will be based. As part of due diligence in the laboratory selection process, Environmental Standards conducts on-site laboratory audits every year on behalf of various industrial parties. If you require assistance in the selection of laboratory services to meet your project needs, contact Technical Director of Chemistry, Rock J. Vitale, CEAC, CPC, at 610-935-5577 for assistance. ■

Heating Oil Release – Fredericksburg, Virginia

The week before Christmas 2008, a national distribution and logistics company found volumes of petroleum hydrocarbons flowing out of a storm drain, through a wooded area, and into a small, local tributary to the Rappahannock River. After initial emergency response actions through the holidays, Environmental Standards was contacted to help identify the source of the release and to initiate an investigation to identify the extent of impacts. The release was found to be related to the facility's 20-million British Thermal Unit (BTU) boiler system. The boiler was fed by a 10,000-gallon Number 2 heating oil underground storage tank (UST) that had been installed in the late-1970s; no records that the system had ever been tightness tested have been identified. When the tank was removed, it was found to be in excellent condition and there were no signs of leakage. The cause of the release was determined to be a fuel return line that had failed in numerous places. Based on Environmental Standards comparison of fuel delivery records with average temperatures for the heating season (October through March) from the previous 10 years, it appeared that at least 20,000 gallons of heating oil had been released from the system over a period of approximately 2 years.

Environmental Standards has worked with the Virginia Department of Environmental Quality (VA DEQ) Storage Tank Program on behalf of the client from the Initial Abatement phase through Corrective Action Plan (CAP) implementation; reimbursable project-related expenses have been claimed through the Virginia Petroleum Storage Tank Fund (VPSTF).

The CAP specified the removal of the UST and associated heating oil impacted soil and a monitoring program. During the Site Investigation phase, Environmental Standards discovered that a majority of the heating oil plume had migrated beneath the footprint of the warehouse building, which covered approximately 7 acres. Environmental Standards installed a free-phase heating oil (free-product) recovery system beneath the floor slab of the warehouse building to remove free-product that had migrated beneath the building. Environmental Standards specified the utilization of free-product removal pumps that could be readily converted for groundwater recovery (total fluids) to address dissolved-phase contamination, if required, following remediation of the free-phase plume.

Based on the long-term risks associated with utilizing heating oil as a fuel source as well as current fuel cost models, the client requested Environmental Standards to support a conversion from heating oil to natural gas. Environmental Standards was instrumental in supporting the client in the process of converting the warehouse boiler system from heating oil to natural gas. This process was largely undertaken to take advantage of the expected future price stability associated with the natural gas discoveries in the Marcellus Shale, which occurs in the subsurface beneath much of West Virginia, western Pennsylvania, eastern Ohio, and southern New York (current work that Environmental Standards is also supporting).

Due to the relative low alkalinity of the soils beneath the Site, the free-product recovered from the remedial system has shown limited degrees of weathering; therefore, Environmental Standards personnel are reprocessing the recovered material for reuse on site as boiler feed stock or for reuse off site by vendors.

The Site continues to operate the free-product recovery system and is working toward closure under the VADEQ Storage Tank Program. ■

US EPA Criticized For Draft VI Guidance

The US EPA Office of Inspector General (OIG) recently criticized the US EPA for its draft 2002 vapor intrusion guidance, which has not been updated or finalized since its publication 7 years ago. In a December 2009 document titled "Lack of Final Guidance on Vapor Intrusion Impedes Efforts to Address Vapor Intrusion Risks," the OIG stated that the absence of a final US EPA guidance on vapor intrusion risks has been a barrier to the protection of human health.

The OIG noted that the US EPA's draft 2002 guidance, titled "OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils" (Subsurface Vapor Intrusion Guidance) had limited purpose and scope, represented aged science, and contained outdated toxicity values (in particular, updated toxicity values for trichloroethene [TCE] and tetrachloroethene [PCE]). Furthermore, the OIG cited the absence in the US EPA guidance of a discussion about mitigating vapor intrusion risks or the effectiveness of monitoring vapor intrusion mitigation efforts of particular concern.

As pointed out by the OIG, the use of multiple lines of evidence for evaluating vapor intrusion and the current state of the science are not included in the 2002 draft document. Such lines of evidence were discussed in a January 2009 US EPA memorandum on interim TCE toxicity values (see the March 2009 issue of *The Standard*), but that memorandum has since been withdrawn.

US EPA's draft 2002 guidance applies only to CERCLA sites and, therefore, is not recommended for use with petroleum releases at underground storage tank (UST) sites, according to the OIG. US EPA's draft document refers the public to UST guidance from 1995, but the 1995 guidance does not discuss vapor intrusion. Additionally, it is noteworthy that the 2002 guidance applies only to residential scenarios.

In the absence of final and current guidance and toxicity values,

(Continued on Page 7, see "Draft VI")

Investment In Virtualization

An article in the September 2008 edition of *The Standard* explained "virtualization" in the IT world; this article describes how this technology has impacted Environmental Standards. Our decision to move to virtualization was based on two primary factors - the need to replace some older servers and the capability of the new virtual environments to allow the efficient and flexible use of existing hardware resources.

Initially, a virtual environment was configured consisting of one HP DL385 G6 Dual Six-Core Processor and 32 GB of Memory and two HBA iSCSI cards for redundancy attached directly to a fully redundant 3.5 TB iSCSI storage device running VMware vSphere 4.0. This set-up allowed up to 16 or 17 Virtual Servers to be run on these two pieces of hardware.

To date, five servers have been moved to the virtual environment and another eight servers are awaiting migration.

Migrating older legacy servers to the new virtual servers allowed our IT professionals to allocate the new hardware resources dynamically - when a server needed the extra CPU or memory, it would be able to use the technology and then return it so another server could use the same resources when needed, thereby increasing performance and efficiency along with cost savings.

Virtual Servers are also very helpful when upgrading and testing new software. Cloning servers allows us to prepare a virtual test environment in no time at all; after cloning, the server can be brought into production.

Although this set-up was more expensive than a standard server, the break-even point was about four servers - after which there would be no hardware costs to add additional servers. If this configuration were "maxed out," tens of thousands of dollars in hardware cost savings would be realized. In addition, energy to run the servers and to cool the server room would be dramatically reduced. Environmental Standards is only partially through migration to virtualization, but huge benefits are already obvious. ■

(Draft VI, Continued from Page 6)

26 states and many other parties have developed their own vapor intrusion guidance documents, resulting in the use of a variety of toxicity values for determining human health risks from vapor intrusion. At this point, each state has a different approach to vapor intrusion concerns. Some US EPA enforcement staff members believe that draft vapor intrusion toxicity values and requirements may limit the US EPA's ability to enforce compliance with those standards and may encourage compliance with toxicity values that may not be universally viewed as safe. Incomplete assessment and cleanup actions to address vapor intrusion risks may also continue, and vapor intrusion risk assessments at petroleum-contaminated sites may not be conducted. Further, some US EPA enforcement staff member contend that the uncertainties created by the 2002 draft guidance could also limit efforts to enforce responsible party cleanup actions.

The US EPA headquarters response is that (among other reasons) its guidance has not been finalized because a 2007 ITRC guidance ("Vapor Intrusion Pathway: A Practical Guideline"), partly funded and supported by the US EPA, addresses many issues the US EPA would have included in a final guidance.

The OIG concluded that the US EPA does not have final guidance to establish current policy on the evaluation and mitigation of vapor intrusion risks and suggests that the US EPA issue a final guidance that includes up-to-date toxicity values, the recommendation to use multiple lines of evidence, and guidance on the assessment of risks from petroleum-contaminated sites in addition to other recommendations. Also, the OIG strongly encourages the development of final toxicity values for TCE and PCE. The US EPA has agreed to these corrective actions and their implementation is ongoing. According to the OIG report, the projected completion date for the finalization of the TCE and PCE toxicity values is December 2010 with final vapor intrusion guidance potentially available in November 2012.

OIG's full report can be found at www.epa.gov/oig/reports/2010/20091214-10-P-0042.pdf. ■

Zvarick Appointed To IEAM Editorial Board

Risk Assessment Manager Kathy Zvarick, LEED AP, was recently appointed to the Editorial Board of the peer-reviewed publication *Integrated Environmental Assessment and Management (IEAM)*, an international journal of the Society of Environmental Toxicology and Chemistry (SETAC). The journal's mission is to provide a peer-reviewed forum for original scientific environmental research and regulatory analysis that bridges the gap between technical research and the use of science in decision-making, regulation, and environmental management. Ms. Zvarick's appointment to the Editorial Board is for a 3-year term. ■

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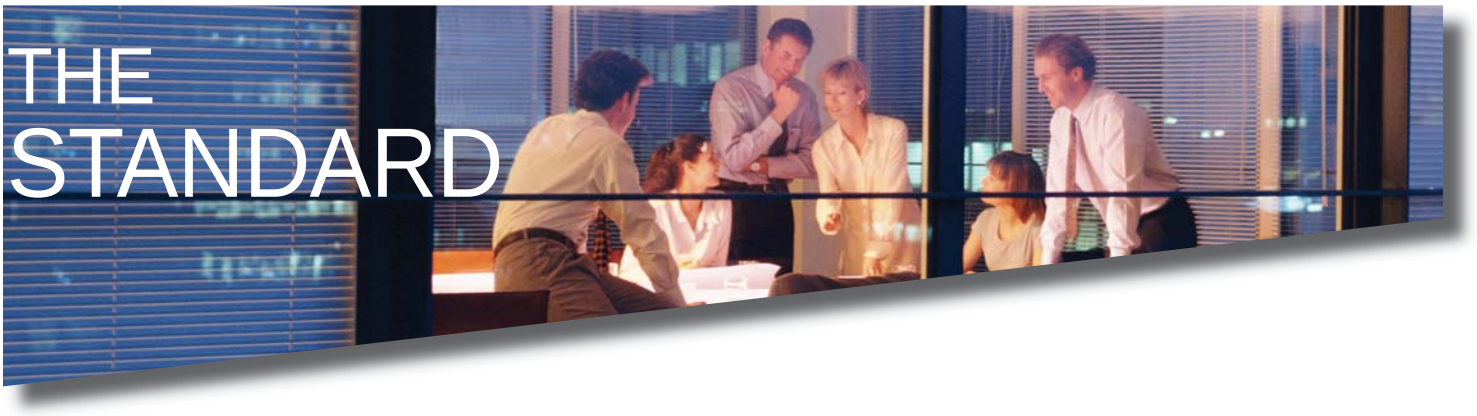

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