

# THE STANDARD

Volume 17, Issue 2  
June 2011

www.envstd.com

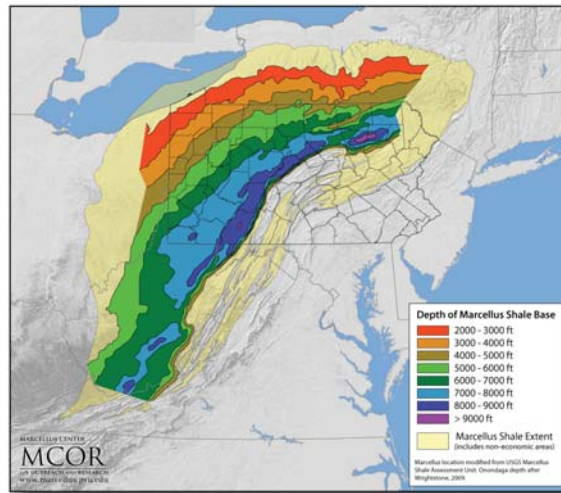
## US EPA Technical Workshop On Hydraulic Fracturing: Part Two

*This article is a follow-up to our first article about the US EPA Technical Workshop on Hydraulic Fracturing that appeared in the last edition of The Standard (March 2011).*

Environmental Standards Principal Chemist Ruth Forman, CEAC; Quality Assurance Specialist/Senior Technical Chemist David Thal; and Technical Director of Chemistry Rock Vitale, CEAC, CPC, were invited by US EPA as technical subject matter experts to participate in the Agency's first technical workshop on hydraulic fracturing. The workshop was held February 24 - 25, 2011, in Alexandria, Virginia.

The objective of this workshop was for the US EPA and state regulatory agencies to understand the latest techniques available and to learn about the positive and negative experiences of the invited technical experts when performing sampling and analyses associated with hydraulic fracturing.

A welcome address was presented by Fred Hauchman, Director of the Office of Science Policy, US EPA Office of Research & Development. During the 2-day workshop, there were presentations relating to three themes - Fracture Fluid



*The Marcellus shale occurs as deep as 9,000 feet below ground surface. At greater depths, the overlying rocks cause greater pressure in the Marcellus formation which can result in higher production rates if properly stimulated. Map courtesy of Marcellus Center for Outreach & Research (marcellus.psu.edu).*

Chemistry, Fingerprinting, and Field and Analytical Challenges.

### Theme 1 – Fracture Fluid Chemistry

For Part 1 of this theme, representatives from Range Resources, Chesapeake Energy, ConocoPhillips, Halliburton, and Baker Hughes gave 15-minute presentations on hydraulic fracturing fluid, considerations for high-rate hydraulic fracturing in unconventional shale, the composition of cross-link and linear gels, and trends in the use of conventional and non-conventional hydraulic fracturing fluids and chemicals.

For Part 2, representatives from USGS,

Chesapeake Energy, University of Buffalo, Apache Corporation, and Halliburton gave 15-minute presentations on inorganic chemistry of produced water, produced formation water sample results, trace metal geochemistry and mobility, and fracture fluid additives and degradation products.

### Theme 2 - Fingerprinting

Part 1 of this theme centered on practices of determining ambient groundwater conditions; representatives from the University of Arizona, Duke University, and Echelon Applied Geoscience Consulting gave presentations on chemical and isotopic tracers of natural gas and formation waters in shale, distinguishing the source of natural gas accumulations, and the relationship to incidents of stray gas migration.

Parts 2 and 3 centered around the use of tracers and tracing fracture fluids in the environment; representatives from Apache Corporation, Gastem USA, Duke University, Bucknell University, and ExxonMobil gave presentations on designing water-quality programs, the use of chemical and radionuclide tracers, integrating isotopic and geochemical fingerprints, and the use of isotopic tracers to assess groundwater contamination. A closing discussion on the inorganic geochemistry of Pennsylvania Marcellus flowback waters was also presented by ExxonMobil.

*(Continued on Page 2, see "Workshop")*



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### Theme 3 - Field and Analytical Challenges

This theme focused on sample representativeness, handling and preservation, practical quantitation and method reporting limits, and sample interferences and dilution challenges. Quality Assurance Specialist/Senior Technical Chemist David Thal from Environmental Standards and representatives from USGS, Texas A&M University, Accutest Laboratories, and TestAmerica Laboratories presented on representativeness of flowback fluid samples, QA/QC and method performance considerations for chemical testing for samples impacted by hydraulic fracturing fluids, determination of total organic carbon (TOC) in difficult sample matrices, and radiochemical analytical challenges with hydraulic fracturing fluids.

For further details, contact Environmental Standards Technical Director of Chemistry Rock Vitale, CEAC, CPC, at 610-935-5577. ■

## Eagle Update



A pair of Bald Eagles has nested each year behind Environmental Standards' headquarters in Valley Forge since 2005. We are happy to report that they returned this year and now have two eaglets in the nest. The eaglets have most of their first set of flying feathers and are almost as large as the adult male. ■

Photo courtesy of Environmental Standards System Administrator John Pratt ([wildthingstodo.com](http://wildthingstodo.com)).

## Quality Assurance Oversight In The Marcellus Shale Gas Play

The Marcellus Shale Gas Play is in the media spotlight and provides a major economic boost for the Commonwealth of Pennsylvania. There is much discussion about hydraulic fracturing and the potential to impact domestic water supplies. Environmental Standards was retained by a major gas producer to provide project-wide quality assurance oversight and data management services associated with the collection and analysis of samples related to predrill domestic well samples and incident response sampling. Environmental Standards has committed to long-term Chemistry Quality Assurance, IT Environmental Data Management, and Geosciences support to assist with this massive effort.

Our Chemistry Quality Assurance professionals are assisting this major producer with data verification and validation, analytical method development for non-routine

analytes, and forensic investigations into data anomalies. Additional support is associated with the preparation of laboratory quality plans, oversight and audits of laboratory activities, and the performance of data quality assessments.

Our IT professionals are providing program-wide, enterprise-level data management throughout the various phases of predrill and response sampling activities to ensure that the data generated are of known and acceptable quality and are readily available to project stakeholders, residents, and the regulatory community.

Our Geosciences professionals are developing project control documents (e.g., multiple standard operating procedures), training sampling personnel, and providing oversight of field sampling activities. Additional support functions are provided from the Environmental Standards Valley Forge headquarters. ■

## Ask The Expert: Is there really diesel fuel in this well?

The question regarding whether or not diesel fuel is present in a groundwater well is a common question, particularly in situations when the site use history and operations of neighboring properties do not indicate the use of diesel fuel. So how can a reputable and certified laboratory report the presence of diesel-range organics in a sample at a site at which diesel fuel is not expected to be present? To best answer that question, one should better understand the analytical method that is utilized for diesel analysis. SW-846 Method 8015 Modified is the most common method cited for the analysis for diesel range organics. The analysis is a gas chromatography method and utilizes a detector that is selective for the analysis of hydrocarbons in general. When a sample known to contain diesel is analyzed in accordance with the published method, the output from the analytical detector (a sample chromatogram) displays a series of peaks that resemble the pattern of the back of a stegosaurus. The method specifies that all of the

chromatographic peaks observed within a given retention time period in the sample corresponding to a diesel standard be summed to calculate the concentration of diesel. The problem is the method does not require a qualitative assessment in which the observed chromatographic peaks are critically evaluated as matching the diesel standard or not. So many times when the presence of diesel in a sample is questioned by data users, critical evaluation of the sample chromatogram may reveal one single large peak within the broad retention time window instead of the characteristic "stegosaurus" diesel pattern. By the method, many laboratories will report one or more large peaks that fall within the broad diesel retention time window as the presence of diesel when, in fact, the data suggest the presence of one of several individual compounds and not diesel. If you have a question about diesel results received, contact Principal Chemist Ruth Forman for more information and review of your sample data (610-935-5577). ■

## US EPA Releases More Electric Utility Plans To Improve Safety Of Coal Ash Impoundments

On May 17, 2011, the US EPA announced that it is releasing action plans developed by 20 electric utility facilities (70 total coal ash impoundments) that describe the measures the facilities are taking to make their impoundments safer. The action plans are a response to US EPA's final assessment reports on the structural integrity of these impoundments made public in May 2010. Coal ash was brought prominently to national attention in 2008 when an impoundment holding disposed coal ash waste generated by the Tennessee Valley Authority failed, creating a spill in Kingston, Tennessee, that released more than 5 million cubic yards of coal ash to the surrounding area. Shortly afterwards, US EPA began overseeing the cleanup, as well as investigating the structural integrity of impoundments, where coal ash waste is stored nationwide.

Since May 2009, US EPA has been conducting on-site structural integrity assessments of coal ash impoundments and ponds at electric utilities. The Agency provides a copy of the structural integrity assessment report to the subject facility and requests the facility to implement the reports' recommendations and provide its plans for taking action. The action plans released in May address recommendations from assessments of 70 impoundments at 20 facilities. Many of these facilities have already begun implementing US EPA's recommendations. Last year, comprehensive assessments were completed for 60 impoundments that were considered to have a high risk of causing harm if the impoundment were to fail.

In addition to the action plans, US EPA is also releasing assessment reports on the structural integrity of an additional 38 coal ash impoundments at 17 facilities across the country. Of these units, nine received a "poor" rating by US EPA; none of the units received an "unsatisfactory" rating, which is the lowest possible US EPA rating. The poor ratings were given because the units lacked some of the necessary engineering documentation required in the assessments, not because the units are unsafe. Based on analysis from the professionals who conducted the assessments, the ratings for these units are likely to improve once the proper documentation is submitted.

The assessment reports were completed by firms under contract to US EPA that

are knowledgeable in the field of dam integrity, and according to the Agency, reflect the best professional judgment of those engineering firms. A draft of the reports has been reviewed by the facilities and the states for factual accuracy. The comments on the draft reports are posted on US EPA's website. US EPA is continuing to review the reports and technical recommendations and is working with the facilities to ensure that the recommendations are implemented in a timely manner. Should facilities fail to take sufficient measures, US EPA reportedly will take additional action, if circumstances warrant. US EPA will continue to provide additional information to the public on the impoundments and facilities as it becomes available.

On May 17, 2011, US EPA released the responses received from 12 additional facilities. These responses will be posted in an updated database. After inclusion of these additional facilities, there will be 240 facilities with 676 surface impoundments in US EPA's database. These facilities have been assessed, are scheduled to be assessed, or do not have any units that qualify for assessment because they are closed, do not contain coal com-



busion residues (CCRs), or are below ground level.

In addition to conducting assessments to evaluate and address potential structural integrity issues of CCR impoundments, the Agency is also in the process of developing the first national rules to ensure the long-term safe disposal and management of coal ash from coal-fired power plants.

The Agency is evaluating more than 450,000 public comments on the proposed rule released in May 2010. The target date for release of a Final Rule will be determined pending a full evaluation of all the information and comments received on the proposal. ■

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## 2009 NELAC Standard To Become Effective On July 1, 2011

On July 1, 2011, the 2009 version of The NELAC Institute (TNI) Standard Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis will go into effect for all laboratories accredited under TNI's National Environmental Laboratory Accreditation Program (NELAP). The new standard is replacing the current 2003 revision of the standard used today. TNI is a non-profit organization whose mission is to generate environmental data of known and documented quality. TNI's vision is to have a national accreditation program for entities generating environmental data across the United States. An overview of some of the changes made to the standard include the incorporation of the current version of ISO/IEC 17025, the removal of outdated references to NELAC, reformatting to simplify reading of the requirements, greater clarity on technical

requirements, and the removal of some requirements that are non-essential for data quality. Some of the new activities required in the 2009 Standard are that customer feedback is required to be obtained by laboratories, expiration dates for prepared reagents and standards must be on the container, an initial demonstration of capability is required if an analyst does not perform a method within 12 months, the low standard must be at or below the limit of quantitation, and data must be qualified for failed surrogate recoveries (the standard previously read "should"). TNI is offering workshops to provide more detail on the changes to the new standard. Contact Principal Chemist Ruth Forman (610-935-5577) for more information on how implementation of the new standard may impact your commercial environmental laboratory. ■

## PA DCNR Adopts New Guidelines For Administering Oil And Gas Activity On State Forest Lands

The Commonwealth of Pennsylvania's Department of Conservation and Natural Resources (DCNR) Bureau of Forestry (BOF) recently adopted Guidelines for Administering Oil and Gas Activity on State Forest Lands (dated April 26, 2011). The BOF manages Pennsylvania's State Forest lands for various resources, including oil and gas production. The document was prepared to establish a set of guidelines that provides protocol and guidance on managing state forest lands toward ensuring the long-term health, viability, and productivity of the Commonwealth's forests and to conserve native wild plants.

The Commonwealth owns approximately 85 percent of state forest lands fee simple, which means that it owns all surface and subsurface rights and, therefore, has control over any oil and gas development activity. On the remaining 15 percent, the Commonwealth owns the surface, but does not own all the subsurface oil and gas rights, and has a much more limited ability to control surface exploration or development activity. The rights of the subsurface owner to reasonably develop his/her property can present a complex challenge as management of the surface lands can, at any point in time, be impacted by these rights.

To help facilitate the management of the extensive gas drilling and development program across state forest lands, the BOF created a Gas Management Team (GMT). The GMT is tasked with the day-to-day management of the gas program including, liaison to the operator's field staff and operations staff, new well pad approvals and location, seismic survey approvals, water impoundment approvals and location, new road construction and condition monitoring, pipeline approvals and construction, water withdrawals and transport, community contact, and other various miscellaneous tasks that accompany gas well development, production, and site restoration.

The adopted document provides guidelines for BOF/GMT staff relating to general communications, file maintenance protocols, file security and proprietary data handling, Pennsylvania right-to-know laws, public safety, and ecosystem and multiple-resource management. Also included are Best Management Practices (BMPs) for various gas exploration and



*Dutchmans Falls, Wyoming State Forest, Sullivan County, Pennsylvania. Almost half of state forest lands in the Marcellus formation are currently under lease. This includes both Commonwealth leases and those under private ownership.*

production activities such as seismic surveys, well pad sites, water storage facilities, water disposal facilities, roads, pipelines, compressor stations, vegetation management, invasive plants, site restoration, and recreation.

The DCNR is still accepting public comments on the guidelines; you can view the guidelines online at [www.dcnr.state.pa.us/ucmprd1/groups/public/documents/document/dcnr\\_004055.pdf](http://www.dcnr.state.pa.us/ucmprd1/groups/public/documents/document/dcnr_004055.pdf) and comments can be submitted to [ra-naturalgas@state.pa.us](mailto:ra-naturalgas@state.pa.us). ■

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## Spill Prevention, Control, And Countermeasure Plans

Since 1973, the US EPA has used Spill Prevention, Control, and Countermeasure (SPCC) Plans as a cornerstone of its strategy to prevent oil spills from reaching our nation's waters. The purpose of an SPCC Plan is to prevent oil discharges from reaching the navigable waters of the United States or adjoining shorelines, to ensure effective response to the discharge of oil, and to ensure that protective measures are used in response to an oil discharge. Navigable waterways can include traditional navigable waters and their tributaries, creeks and streams, ditches, lakes and ponds, wetlands, sanitary sewers, storm sewers, and groundwater (if directly connected with surface waters).

A facility is required to have an SPCC Plan if it is a non-transportation facility

that distributes, drills, gathers, produces, processes, refines, stores, transfers, uses, or consumes oil and oil products with capacity thresholds greater than 1,320 gallons for above-ground storage tanks or has a completely buried storage capacity greater than 42,000 gallons. The capacity of a facility includes all containers such as tanks and portable tanks with volumes greater than or equal to 55 gallons, oil field equipment, 55-gallon drums, and empty containers that may be used to store oil and are not permanently closed. "Oil" is defined by the US EPA and the Clean Water Act to include petroleum and petroleum products, fuel oil, sludge, waste oil, vegetable oil, and animal oils.

The owner or operator of a facility must review the facility SPCC Plan at least

once every 5 years and the review must be documented. The SPCC Plan must be amended whenever there is a change in the facility design, construction, operation, or maintenance that affects the facility's potential to discharge oil into navigable waterways. In addition, the US EPA may require amendments to an SPCC Plan if a facility discharges in excess of 1,000 gallons or following two releases of 42 gallons or more to navigable waterways within any 12-month period. Penalties for not complying with these laws can be as high as \$25,000 per day per violation.

For more information on SPCC Plans contact Senior Consulting Geoscientist Bryan Smith, P.G. (865-376-7590). ■

## Office Of Inspector General Examines US EPA AAI Reports For Brownfield Grants

Many of our clients may not be aware that US EPA does not review All Appropriate Inquiry (AAI) reports submitted by brownfield grantees to ensure that the reports comply with federal requirements. Rather, US EPA has relied on the environmental professional conducting the AAI to self-certify that requirements are met. In February 2011, the Office of Inspector General (OIG) released a report that evaluated the adequacy of Phase I reports submitted by brownfield grantees. Thirty-five randomly selected Phase I AAI reports were evaluated. In addition to the report, a presentation on the OIG findings relative to adequacy was provided as part of the 2011 Brownfields Conference held in Philadelphia earlier this spring.

Of the 35 AAI reports reviewed from three US EPA regions, OIG was surprised to report that none contained all the required documentation elements of the AAI Regulation. According to the OIG, such reporting occurred because the US EPA "does not have management controls requiring EPA project officers to conduct oversight of AAI reports." At the highest level, OIG's report also noted that management controls regarding US EPA oversight of Brownfields grants funded by the American Recovery and Reinvestment Act of 2009 (ARRA) are also missing from US EPA's program. The Agency has issued specific guidance and management controls for ARRA grant activities. According to the OIG, however, the guidance and controls do not specifically address oversight of AAI reports.

Because of US EPA's lack of oversight and reliance on an environmental professional's self-certification, AAI investigations not meeting federal requirements may go undetected by Agency staff. The OIG found instances of noncompliance that were not detected by US EPA staff. Improper AAI investigations introduce risk that the environmental conditions of a property have not been properly or adequately assessed, which may lead to improper decisions about appropriate uses of brownfields properties. Ultimately, according to the February 2011 report, "... threats to human health and the environment could go unrecognized."

OIG noted that noncompliant AAI investigations may result in future grant denials

and possible denial of government reimbursement. The AAI reports the OIG-reviewed reports were generated from \$2.14 million in grant awards. If conditions merit, US EPA is authorized to take back funds from noncompliant grantees. In a stinging evaluation, the report states that "The OIG questions the value of the reports we reviewed."

OIG recommended that US EPA establish accountability for compliant AAI reports, to include those conducted under ARRA Brownfields grants; develop a plan to review AAI reports to determine the reports' compliance with AAI documentation requirements; and establish criteria to determine whether noncompliant grantees should return federal grant money. The US EPA did not clearly agree or disagree with OIG recommendations. In its final response to the February 2011 report, the OIG noted with some frustration that the "EPA needs to agree or disagree with recommendations and, as appropriate, provide a corrective action plan to address the recommendations."

For a PDF copy of the complete report, please contact Abby Koss (akoss@en-vstd.com). ■

## Circle of Excellence



Environmental Standards was named to PSMJ Resources, Inc.'s (PSMJ's) Circle of Excellence list of top performing firms for the second consecutive year.

PSMJ's Circle of Excellence represents the top 20% of firms participating in PSMJ's Financial Performance Survey that achieve the best overall business performance in the industry. This distinction is awarded based upon a combination of 11 performance benchmarks that measure business operations in terms of profitability, growth, cash flow, overhead control, business development, project performance, and employee satisfaction. PSMJ, headquartered in Newton, Massachusetts, provides educational information and consulting services to the architectural, engineering, and environmental industries. ■

## Laboratory News

### TestAmerica Names New CEO

TestAmerica Laboratories, Inc. recently announced that James E. Hyman has been named Chief Executive Officer and has been appointed to the company's board of directors. Mr. Hyman succeeds Rachel Brydon Jannetta, who has served as CEO for TestAmerica and predecessor company STL since 1993. These changes were effective May 2, 2011. ■

### SGS North America Expands Air Laboratory Capabilities

SGS North America announced in early May that the laboratory has expanded its air laboratory capabilities at the Wilmington, North Carolina, laboratory. ■

### Laboratory Fraud - Blue Marsh Formally Indicted

A federal grand jury has indicted a Berks County, Pennsylvania, environmental testing laboratory and its president for allegedly defrauding its customers by falsifying tests and reports. According to the indictment, Michael J. McKenna and Blue Marsh Laboratories, Inc. allegedly prepared and submitted hundreds of false and fraudulent environmental test reports to a host of customers. Blue Marsh and McKenna are also accused of preparing false water-test results for Hurricane Katrina floodwater samples, which the US EPA required be tested for various pollutants. Environmental Standards initially reported this incident in the December 2010 issue of *The Standard*. Mr. McKenna is charged with 55 counts each of deceptive or fraudulent business practices, theft by deception, unlawful conduct, and receiving stolen property; four counts of conspiracy; and one count of participating in a corrupt organization. ■

## Career Openings At Environmental Standards

Environmental Standards is actively seeking qualified candidates to join our team:

- Environmental Chemist/IT Professional - Valley Forge, PA
- Environmental Chemists (Mid & Senior Level) - Valley Forge, PA and Kingston, TN
- Senior Environmental Consulting Chemist - Charlottesville, VA
- Senior Environmental Data Project Manager - Valley Forge, PA
- Senior Environmental IT Data Manager - Valley Forge, PA

For full position descriptions, please visit [www.envstd.com/jobs\\_availability.html](http://www.envstd.com/jobs_availability.html). If you are a self-motivated, hard-working individual who wants to excel in a fast-paced, client-driven environment, we encourage you to submit your resume for consideration. We are an equal opportunity employer and offer a competitive salary and comprehensive benefits package.

Submit your resume to Human Resources Manager Gail Benkovic at [gbenkovic@envstd.com](mailto:gbenkovic@envstd.com). ■

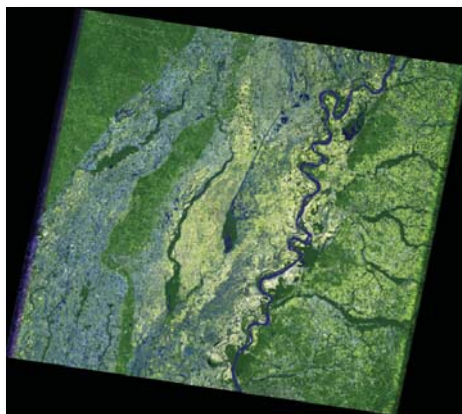
## 2011 Flooding Impacts On Environment Yet To Be Determined

While the floodwaters continue to rage along the Mississippi, it is unclear exactly how much and what type of environmental damage will result from the high waters of 2011. Regardless, there is no question that the Mississippi River might be classified as “out of control.” Below are two Landsat Images taken near Tennessee, Kentucky, Missouri, and Arkansas.

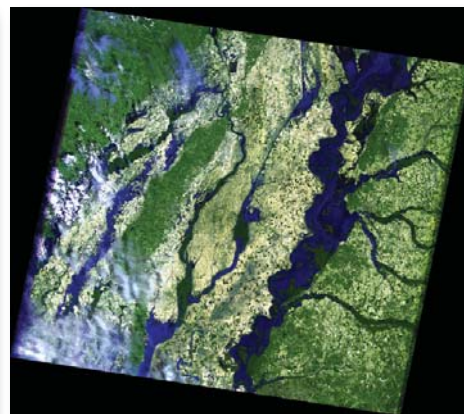
The 2006 image shows the river in a more normal state, while the 2011 image shows the massive flooding. The dark blue tones represent water or flooded areas, the light green tone is cleared fields, and light tones are clouds.

Recent Landsat satellite data captured by the US Geological Survey and NASA on May 10 show the major flooding of the Mississippi River along the state borders of Tennessee, Kentucky, Missouri, and Arkansas as seen from 438 miles above the earth. ■

*Photos courtesy of US Geological Survey. Department of the Interior/USGS.*



2006 - Landsat 5 shows the Mississippi River along the state borders of Tennessee, Kentucky, Missouri, and Arkansas on May 12, 2006.



2011 - This Landsat 5 image collected on May 10, 2011, shows the Mississippi River overflowing its banks along the state borders of Tennessee, Kentucky, Missouri, and Arkansas.

## Over A Year Since The Deepwater Horizon Incident

It has been about 14 months since the BP MC252 Deepwater Horizon incident. During a recent luncheon at the Harbert Center, Ayana McIntosh-Lee, BP's General Manager of External Relations, told Birmingham, Alabama, Kiwanis that “The beach clean-up effort is over”; however, teams still monitor the beaches in the early morning and are trained to clean up any residue before most tourists arrive for the day. Ms. McIntosh-Lee said that 48,000 people, 6,000 ships, and 120 aircraft were engaged at the zenith of the cleanup effort. According to Ms. McIntosh-Lee, “the coast is more beautiful than ever” and “the beaches look great.” She added that the Gulf seafood is subject to more testing for safety than any seafood in the world.

Richard Snyder, a scientist with the University of West Florida Center for Bioremediation, agreed – “We’re very confident that all the seafood is safe. Most of the impact of the oil spill has been psychological.” Some people stopped going to the beaches even before the oil reached shore, and others refuse to eat fish despite the frequent testing. Mr. Snyder made his remarks on WSRE-TV’s “Connecting the Community,” a show hosted by Lloyd Patterson.

Furthermore, much of the crude oil that came directly from the blown out well disappeared when the oil gushed out according to Terry Hazen, a microbial ecologist with the Lawrence Berkeley laboratory. Mr. Hazen stated that “In the future there won’t be as much to worry about and as much gloom and doom as we

saw in the media from this oil spill” partly because oil is naturally biodegradable. Mr. Hazen and his team spent weeks in the Gulf of Mexico sampling water near the BP oil spill and searched for traces of spilled oil.

Since 3 weeks after the BP MC252 Deepwater Horizon incident, Environmental Standards Chemistry, Geosciences, and Data Management personnel have been providing QA oversight and response-wide data management support to BP’s efforts. Environmental Standards personnel from the Valley Forge, Pennsylvania; Charlottesville, Virginia; and Kingston Tennessee, offices worked tirelessly – 7-day to 14-day on-site rotations at BP incident command centers in Houma, Louisiana; New Orleans, Louisiana; and more recently in Houston, Texas. ■

## 2011 Summer Conferences

**Marcellus Shale Coalition** – Representatives from Environmental Standards will attend monthly Coalition meetings.

**Tennessee Bar Association (TBA) Annual Convention**, June 15-18, 2011, Chattanooga, Tennessee. Environmental Standards exhibited.

**Tight Oil Canada 2011**, June 22-23, 2011, Calgary, Alberta, Canada. Representatives from Environmental Standards attended.

**Battelle Symposium on Bioremediation and Sustainable Environmental Technologies**, June 27-30, 2011, Reno, Nevada. Senior Geoscientist Joseph P. Kraycik, P.G., will present “Reworking a Bioremediation at a Dry Cleaner Release Site” and Senior Geoscientist Kevin W. Frysinger, P.G., will present “Bioremedia-

tion of Chlorinated Solvents in the Brunswick Shale of Southeast Pennsylvania.”

**17<sup>th</sup> Annual Good Laboratory Practice (GLP) Conference**, August 1-2, 2011, Charlottesville, Virginia. Representatives from Environmental Standards will attend.

**National Environmental Monitoring Conference (NEMC)**, August 15-19, 2011, Bellevue, Washington. Principal Chemist Ruth L. Forman, CEAC, will present “Generating Meaningful Environmental Information During the Chaos of an Emergency Response.” Senior QA Chemist Jennifer Gable will present “Laboratory Selection During Emergency Response Actions – Balancing the Need for Quality Data With the Need for Quick Data.”

**Dioxin 2011**, August 21-25, 2011, Brussels, Belgium. Quality Assurance Spe-

cialist/Senior Technical Chemist David Thal will present “Guidance for GC/MS Analysis in Support of Oil Spill Forensics” and “Practical Research Design for Site-Specific Biota-Sediment Accumulation Factors.”

**Marcellus Shale Coalition’s Shale Gas Insight Conference**, September 7-8, 2011, Philadelphia, Pennsylvania. Environmental Standards will attend.

**Auditing Roundtable Fall Meeting**, September 7-9, 2011, Philadelphia, Pennsylvania. Environmental Standards has submitted abstracts to present at this meeting.

**9<sup>th</sup> Annual Virginia Industry Environmental Conference (VIEC)**, September 21-22, 2011, Richmond, Virginia. Environmental Standards will attend. ■

## Philadelphia Wholesale Produce Market Opens For Business

The Philadelphia Wholesale Produce Market (PWPM) opened the doors of its new facility on Essington Avenue for business on June 5, 2011. The market was originally scheduled to open in April, but its opening was delayed due to refrigeration system issues. A ribbon cutting event for the new, state-of-the-art, 700,000-square foot produce storage and distribution facility was held on March 25, 2011. Guests of honor at the event included Philadelphia Mayor Michael Nutter as well as city and state officials. Philadelphia’s own Lauren Hart sang “God Bless America” during the ceremony.

The opening of the new PWPM facility marks the completion of a very successful brownfields redevelopment project undertaken by local real estate developer O’Neill Properties Group. Environmental Standards served as the primary environmental consultant to O’Neill throughout the redevelopment process. Over the past 7 years, Environmental Standards has conducted extensive soil, groundwater, and soil gas assessment activities at the Essington Avenue property. In addition, remedial planning and oversight of material management during construction was conducted by our environmental professionals. On behalf of O’Neill, Environmental Standards demonstrated attainment of a site-specific remediation



*Before - The site on Essington Avenue in Philadelphia was a former auto salvage, scrap yard, and landfill.*

standard under Pennsylvania’s Land Recycling (Act 2) program and ultimately received a release of liability for the property from the Pennsylvania Department of Environmental Protection.

The PWPM has been providing produce quality, variety, and service to its customers for over 50 years. Built with \$218 million in public and private funding, the new facility has been billed as the “world’s largest refrigerator” and is equipped with technologically advanced cooling and communication systems. With over 200 loading dock bays and an on-site recycling and waste center, the PWPM is well positioned to serve buyers within a 500-mile radius with high-quality, fresh



*After - The PWPM is a state-of-the-art facility.*

produce. The new facility will have the ability to maintain the cold chain more effectively resulting in fresher produce and a longer shelf life. Thousands of jobs were retained and created by relocating the PWPM facility to the Essington Avenue property. ■



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**Featured Topics**

QA Oversight In The Marcellus Shale  
Gas Play ..... 2

Ask The Expert ..... 2

US EPA Plans To Improve Safety Of  
Coal Ash Impoundments ..... 3

2009 NELAC Standard ..... 3

PA DCNR Guidelines For Oil And Gas  
Activity ..... 4

OIG Examines AAI Reports ..... 5

Laboratory News ..... 5

Flooding Impacts On Environment ..... 6

2011 Summer Conferences ..... 7

Produce Market Opens For Business... 7

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