The Standard

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New Jersey Adopts Remediation Oversight Rule Amendments

In September 2006, the New Jersey Department of Environmental Protection (NJ DEP) adopted amendments to the Department's Oversight Rule that significantly affect both voluntary and non-voluntary remediation projects in the state. Specifically, projects operating under the Remediation of Contaminated Sites Rule, the Underground Storage Tank Rule, the Industrial Site Recovery Act Rule, and the Technical Requirements for Site Remediation Rules are subject to the amendments. In addition, some aspects of the amendments are applicable to projects in the Voluntary Cleanup Program (including brownfields initiatives) operating with a Memorandum of Agreement (MOA).

The NJ DEP has indicated that the procedural changes are intended to accelerate and improve the efficiency of its review and evaluation of remediation submissions. The new, stricter system, which eliminates conditional approvals, identifies 550 potential violations, classifies the violations as "minor" or "non-minor," and establishes a base penalty for each violation. The violations are further classified as to their eligibility for a "grace period" (30 – 90 days). Another feature of the "Grace Period Law" is that NJ DEP will direct all correspondence to the individual who is responsible for conducting the remediation; designated agents to whom original correspondence was previously sent will now

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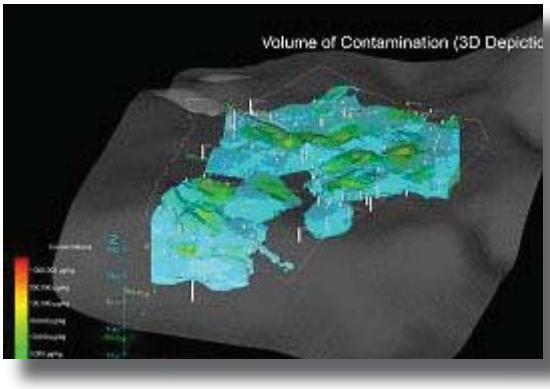
ENVIRONMENTAL STANDARDS

Environmental Standards Answers The Call With Spatial Distribution Modeling Task

During a recent routine QA oversight and data management status meeting for an industrial facility closure project, representatives of the industrial client asked if we would assist with a time critical spatial distribution modeling task. The field consultant on the project had been asked to perform this activity the previous week but stated that this task was all but impossible given that only a week was allocated.



Environmental Standards explored the drivers for the task with the client and developed a strategy that allowed us to accept this challenging modeling activity with a deadline just two days away. Our typical modeling effort requires a significant data gathering stage as well as explorations of the statistical confidence of the data relative to the spatial distribution both of volume and mass. The data for this effort were already in an easily accessible database operated by Environmental Standards. For this task, we focused primarily on high confidence volume estimates with the stated goal of providing key project decision-makers and regulators with a visual representation of the spatial distribution of the constituent of concern.

Environmental Standards project team members working on the West Coast gathered the geological information needed for the project including boring logs to model both surficial and stratigraphic features. The team members also queried the project database to gather analytical data for the constituent of concern as well as appropriate georeferencing data. These data were subsequently provided to our modeling team working in our Valley Forge, Pennsylvania, office on the East Coast by the end of the first day. Working into the night, the spatial distribution model was created and by early the next morning, the first draft visuals were created for review by the West Coast client team.

It became quite obvious that a real time view of the model was needed in order for the team on the West Coast to provide review and commentary. An on-line review session was initiated and modelers and the client team worked together and interactively to achieve appropriate views of the distribution mode, which included surficial features and the subsurface contamination with appropriate text titles and legends to allow the end user easy recognition model's features. By the end of the day, the model was completed and its strategic use was finalized. Static images of the model depicting key aspects

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Featured Topics

US Environmental Protection Agency News

Hazardous Waste And Pollution Violations

During fiscal year 2006, the US EPA referred 286 civil cases involving hazardous waste and other sources of pollution to the US Department of Justice, the highest total in five years. The US EPA's civil enforcement program also concluded 173 judicial cases and 4,624 final administrative penalty order settlements and resolved self-disclosed violations for 1,475 facilities.

On the criminal side, defendants in criminal enforcement actions completed in fiscal year 2006 will serve 154 years in prison and pay approximately $43 million in fines and an additional $29 million for environmental projects as part of the sentences.

In addition to these fiscal year 2006 statistics, the US EPA reportedly obtained commitments from industrial and governmental regulated entities to reduce pollution by nearly 900 million pounds. Over the past three years, the Agency has registered pollution reduction totaling approximately three billion pounds and has required companies to invest almost $20 billion in pollution control equipment.

Toxic Release Inventory

US EPA Administrator Stephen Johnson has withdrawn a plan that would have reduced the required reporting time for releases of Toxics Release Inventory (TRI) chemicals from once per year to once every two years. This decision followed the submission of numerous public comments on the change, which many say would have made it more difficult to measure the potential threat of environmental contamination.

Still pending within the Agency is a decision on whether or not to withdraw a plan that would raise the minimum threshold for numerical reporting from 500 pounds of release per TRI chemical to 5,000 pounds.

Remediation Oversight Rule

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receive copies of official correspondence.

Quite possibly, these new rules mark the end of negotiating work scopes through the informal, high-speed, efficient process of a regulator picking up the phone and having a conversation with a consultant for clarification on certain aspects of a submittal. What prompted the need for the new rule? Apparently, NJ DEP reviewers determined that the quality of reports and documents submitted for review were unacceptable far too frequently. Even a cursory NJ DEP comment document developed on poor-quality work took NJ DEP personnel a tremendous amount of time, resulting in already over-loaded staff "wasting" valuable time. While clients rightfully demand quality services for their dollar spent, inadequate budgets can result in a painful, long, iterative process relative to satisfying NJ DEP's information needs. All stakeholders need to take a balanced approach to environmental work, particularly in states like New Jersey, where the stakes have been raised.

Environmental Standards professionals are closely monitoring developments as responsible parties, consultants, and real estate redevelopers attempt to comply with the new rules (available on-line at www.nj.gov/dep/srp/guidance/graceperiod.com).

For information about how the changes may impact your project, please contact Principal Geoscientist Gerry Kirkpatrick at 610-935-5577.

Spatial Distribution Modeling

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were created as well as four-dimension interactive views for distribution to the project team before close-of-business on the second day.

The key to project success was understanding the client's technical drivers – the goals to be achieved by the request and how to meet those goals technically within a tight deadline. Environmental Standards professionals pride themselves on their ability to listen and understand a client's needs and to apply industry-leading modeling approaches and software to achieve results that often exceed client expectations.

What Is A DUSR?

The New York State Department of Environmental Conservation (NYS DEC) has developed guidance for the performance of a data usability summary report, also known as a DUSR. The DUSR guidance is presented in Appendix 2B of the Technical Guidance for Site Investigation and Remediation (NYS DEC, December 2002). The "summary report" portion of the DUSR is misleading – several clients who had the impression that the DUSR is a limited or abbreviated data validation have contacted Environmental Standards.

The "basics" of the DUSR guidance is in the following six steps.

1. Is the data package complete as defined under the requirements for the NYS DEC ASP Category B or US EPA CLP deliverables?
2. Have all holding times been met?
3. Do all QC data, blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data fall within the protocol required limits and specifications?
4. Have all of the data been generated using established and agreed upon analytical protocols?
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
6. Have the correct data qualifiers been used?

As indicated in Step Number 5, the DUSR guidance directs the user to perform a complete review of the data. In addition, the DUSR guidance does not provide instruction on how to interpret the QC data that do not meet acceptance limits.

In order to get the most from a DUSR or data validation effort, experienced, knowledgeable chemists should perform the data review. If you have questions about the DUSR process or would like to learn more about data validation, please contact Technical Director of Chemistry/Principal Rock J. Vitale at 610-935-5577.

Alaska Updates Requirements For Environmental Reports

The Alaska Department of Environmental Conservation (ADEC) Division of Spill Prevention and Response recently updated its requirements for environmental laboratory data and quality assurance documentation. Technical Memorandum 06-002, which was issued on October 9, 2006, stipulates the technical requirements for laboratory data submitted to ADEC. The memorandum provides minimum requirements for Laboratory Data Reports, Laboratory Data Review Checklists, and Quality Assurance Summaries. This information is available at www.dec.state.ak.us/spar/guidance.

Quick Remediation Response Results In Minimal Impact In No. 2 Fuel Oil Spill From Delivery Truck Roadway Accident

Environmental Standards recently obtained relief of liability under Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2) for a client involved in a motor vehicle accident in which a delivery truck carrying approximately 1,200 gallons of No. 2 fuel oil overturned. As a result of the accident, which occurred in South Whitehall Township, Pennsylvania, No. 2 fuel oil was released onto the roadway, the side of the roadway, and into the nearby Jordan Creek. Jordan Creek joins the Little Lehigh Creek, and the two eventually flow into the Lehigh River. The proximity of the release to a potable water supply network comprising eight production wells providing water to several residences and a local business necessitated prompt and flawless assessment and remediation of the release.

Jordon Creek during the course of remediation.

Jordon Creek in its post-remediation state.

Emergency response activities such as assessment and remediation activities were initiated directly following report of the accident. These activities involved regular communication and project strategy discussions among the responsible party, regulators, remediators, property owners, and other concerned parties. Environmental Standards Geosciences Department personnel facilitated strategy-based discussions that enabled remediators to make timely decisions regarding the most appropriate and accessible areas of the site in which to focus initial remediation efforts. Further discussions allowed remediation activities to move forward without unnecessary delays and were critical to the success of this project.

Specific remediation and assessment activities included the removal of approximately 200 gallons of product from Jordan Creek, the removal of approximately 200 gallons of product from the delivery truck, soil remediation by excavation and proper off-site disposal, post-excavation soil assessment, Jordan Creek Bridge cleaning, surface water assessment, potable water supply network (located in the vicinity of the release area) assessment, and groundwater assessment.

Soil excavation activities were conducted during March 2006 and resulted in the removal and disposal of 1,154 tons of impacted soil from four excavations.

Post-excavation soil assessment activities consisted of screening and sampling soils in excavated areas. Forty-four post-excavation soil samples were collected for laboratory analysis. Sample results for the majority of the impacted soils showed that target constituents were either not detected or were below the Pennsylvania Department of Environmental Protection (PA DEP) medium specific concentration (MSC) for residential soil. In one location, Environmental Standards applied the 75%/10X rule, which allows for MSC exceedances provided that no more than 75% of the samples exceed the MSC and no single exceedance is more than 10-times the MSC.

Surface water samples from Jordan Creek were collected periodically throughout soil remediation and bridge cleaning activities to monitor for the presence of volatile organic compounds (VOCs) in Jordan Creek, as requested by the PA DEP. Laboratory analytical results from surface water samples demonstrated that target analytes were not detected above the PA DEP standards for the surface water samples analyzed.

Analysis of water samples collected from each of the seven residences supplied by a potable water supply network located near the spill indicated that no target analytes were detected above the laboratory reporting limit. An eight-hour pumping test was conducted on the potable supply well located nearest the spill area. This well had previously been taken off-line as a precaution following the release. Five water samples were collected from the well during the pumping test, and analytical results from these samples indicated that no target analytes were detected above the laboratory reporting limit. Following the pumping test, this well was brought back on-line and a four-month monitoring program was implemented. Laboratory analytical results from samples taken during that time-period indicated that no target analytes were detected above the laboratory reporting limit, thereby demonstrating that the well was not impacted as a result of the fuel oil release.

Shallow groundwater monitoring wells were installed at the spill site to determine whether a hydrogeologic connection existed between the shallow (i.e., first encountered groundwater) and deep groundwater (i.e., depth of potable water supply pump intakes). These wells were also installed to evaluate shallow groundwater quality (with respect to target analytes) in the vicinity of the release. The results of the hydrogeologic investigation demonstrated that shallow groundwater beneath the site exists under semi-confined aquifer conditions and that a hydrogeologic connection exists between shallow and deep water bearing zones. The results of the shallow groundwater quality investigation showed that dissolved-phase fuel oil did not impact groundwater as a result of the prompt implementation of remedial actions.

Would This Look Good On Your Desk?

Would you like a copy of Environmental Standards newly designed newsletter on your desk, rather than in your co-worker's office? If so, visit our website — www.envstd.com/Newsletter.html — and register to receive your own hardcopy or electronic version of our quarterly newsletter.

Vapor Intrusion: Looking Beyond Basics For A Discussion Of Emerging Issues

Given the great deal of attention paid to vapor intrusion in the last few years, those of you reading this newsletter likely have, at the least, a conceptual idea of the mechanisms of this exposure pathway. This article is not intended to describe vapor intrusion, but rather to provide a discussion about some of the issues that are emerging as vapor intrusion science matures and guidance documents and policies are revised accordingly.

Naphthalene. Strictly speaking, naphthalene can be considered a semivolatile organic compound (SVOC) based solely on its Henry's Law Constant and molecular weight. Oftentimes, however, regulatory programs require the evaluation of this compound for the vapor intrusion pathway, which is typically associated with only volatile organic compounds (VOCs). Accordingly, the analytical method used to determine naphthalene concentrations in air has been brought into question. Method TO-13A can be used to analyze for naphthalene, an SVOC; however, Method TO-13A requires a different set of sampling apparatus (XAD/PUF sorbent tubes) than that used for VOC analysis (*i.e.*, Summa® canisters), thereby complicating field procedures, holding times, unit conversions, and data comparability. Preferably, naphthalene in air can be analyzed using Method TO-15, which is the method used for other "normal" VOCs. Analytical laboratories have demonstrated success with sample recovery and have consistently met QA/QC requirements when using Method TO-15 to analyze air samples for this borderline VOC.

Mercury. A recent incident in New Jersey prompted concern that mercury has been ignored over the years as a potential source of vapor intrusion risk. To be clear, the source of the mercury at the New Jersey site was from within the building (floors, walls, *etc*.) and not from the subsurface. While mercury does volatilize to some degree, it is unlikely that mercury would drive vapor intrusion risks at most sites. Nevertheless, some states are adopting vapor intrusion cleanup standards for the element. The appropriate sampling and analysis methods for mercury in air are still being explored. Most analytical methods provide only total mercury results and do not differentiate between species (*e.g.*, methyl mercury, mercuric chloride) that can often differ significantly in toxicity.

Soil Screening Values. In its RCRA vapor intrusion guidance, the US EPA specifically excludes vapor intrusion screening values for soils, citing uncertainties associated with the measurement of VOCs that are

introduced during sampling, preservation, and analysis and a lack of confidence in soil partitioning calculations. Instead, the US EPA recommends soil-gas sampling to determine the potential for vapor intrusion from soil VOC contamination. While most states have been slow to follow suit, New Jersey has taken an approach similar to that of the US EPA. This approach may be an emerging trend and, subsequently, soil-gas sampling may become a standard component of site characterization (for VOCs) along with soil and groundwater sampling. Care should be taken, however, when applying attenuation factors to soil-gas data to estimate indoor air concentrations. Attenuation factors can vary by orders of magnitude depending on the distance of the sample from the building foundation, the VOC being studied, soil moisture conditions, and soil type.

Vapor Barriers. Some agencies have questioned the use of vapor barriers to preclude vapor intrusion exposures (*i.e.*, challenging the long-term integrity of such engineering controls). While it is true that the integrity of a vapor barrier can be compromised, most quality barriers will last for very long periods of time if installed correctly. As with any engineering control, long-term maintenance and monitoring should be implemented to ensure that the integrity of the vapor barrier has not been compromised. Some less-expensive, thinner barriers may not eliminate vapor migration into structures. Oftentimes, the effective use of vapor barriers includes the installation of other mitigation systems such as passive venting.

Biodegradation. Under correct aerobic conditions, microorganisms readily degrade many petroleum-based hydrocarbons to carbon dioxide. Chlorinated solvents can also naturally biodegrade -- only by a slower process under anaerobic conditions. The vapor intrusion models mostly widely used today (in the development of screening levels and risk assessments) do not account for the biodegradation of contaminants, which can reduce contaminant concentrations or increase concentrations of daughter products that are more toxic than their parent compounds. Some agencies are starting to apply a dilution or degradation factor to their screening levels to account for the biodegradation of certain compounds.

For more information about vapor intrusion and associated sampling, analytical, and exposure assessment methodologies, please contact Manager of Risk Assessment and Toxicology Kathy Zvarick at 610-935-5577.

Nitric Acid Preserved Container Shipment Confusion

Environmental laboratories have routinely shipped sample containers with the preservative nitric acid by air courier to clients in support of field collection of aqueous samples for metals analysis and gross alpha, beta, and gamma analyses, among others. On October 1, 2006, when UST DOT 49 CFR Part 1734 became effective, laboratories were forced to find alternative methods of shipment because the new regulations eliminated the small quantity exemption for nitric acid. After a period of considerable confusion, laboratories learned that they could apply for and would receive a special permit from US DOT to ship containers with nitric acid (concentration less than 20%). Most laboratories have received such permits and have been able to resume normal air shipment.

Laboratory News

Severn Trent Laboratories, Inc. Sale Completed

The previous edition of *The Standard* reported that H.I.G. Capital, which owns TestAmerica Analytical Testing Corporation, was acquiring Severn Trent Laboratories, Inc. When announcing completion of the sale in January 2007, representatives of the two laboratory networks indicated that they would be "joining forces" but that customers should not expect any immediate changes. The new organization will operate 54 laboratories and dozens of service centers throughout the United States.

Gulf Coast Analytical Laboratories Sold

Gulf Coast Analytical Laboratories (GCAL) in Baton Rouge, Louisiana, has announced its sale to 3Stone Advisors LLC and an internal management group. GCAL, which is one of the largest single-facility environmental laboratories in the United States, plans to expand its service area beyond the Gulf Coast Region. 3Stone Advisors LLC is based in Columbus, Ohio.

Waters Corporation Acquires Environmental Resource Associates

Waters Corporation of Milford, Massachusetts, announced the acquisition of the environmental laboratory proficiency testing company Environmental Resource Associates (ERA) in Arvada, Colorado, in November 2006. ERA will operate as a wholly-owned subsidiary of Waters Corporation with no planned management or personnel changes.

Alta HRMS Services Changes Name

Alta HRMS Services, located in El Dorado Hills, California, has changed its name to Vista Analytical Laboratory. According to a company press release, clients can expect the same level of quality and service, with the same ownership and management team in place, but under the new name. The new name will be rolled out on all company reports, packaging, and invoices.

Environmental Standards Professionals Participate In North American SETAC Event In Montreal

Environmental Standards Technical Director of Chemistry/Principal Rock J. Vitale, CEAC, CPC (left) had the opportunity to meet the Executive Director of The Society of Environmental Toxicology and Chemistry (SETAC) North America – Paul B. Goodson, P.E., CAE (right) – while attending the organization's 17th Annual North American Conference in Montreal, Canada. Mr. Goodson began serving in this position in April 2006, and in this capacity, directs and manages the affairs of SETAC North America as well as the assigned affairs of the global SETAC organization, the SETAC World Council, and the geographic units of SETAC Asia/Pacific and Latin America.

During the conference, Mr. Vitale moderated a session on "Innovative Planning and Quality Oversight for the Characterization of Complex Sediment Investigations." Speakers in this session addressed the challenges associated with planning, executing, and performing quality sediment management programs that maximize information usability. Two of the eight session presentations were given by Environmental Standards Principals Daniel P. Claycomb, P.G., Director of Geosciences, and Dennis P. Callaghan, Technical Director of Information Technologies.

The Society of Environmental Toxicology and Chemistry, a global professional, non-profit organization, was founded in 1979 and has nearly 5,000 individual members from more than 70 countries in the fields of environmental chemistry and toxicology, biology, ecology, atmospheric sciences, health sciences, earth sciences, and environmental engineering. Members of SETAC include global companies such as Alcoa, BP, DuPont, ExxonMobil, GE, and Honeywell.

Deltek Vision And CRM Deployment Coming

Continuing the heavy infrastructure investment begun in 2006, Environmental Standards is deploying Deltek Corporation's Vision business management software package in March 2007. Clients should expect project managers to provide timely project budget and work-effort information and quicker budget development and proposal turn-around-time. Additionally, the new customer relations management software will allow better communication with our clients including informing you of those things you want to be apprised of, and perhaps more importantly, not bothering you with the things you do not care about.

Your Comments Please

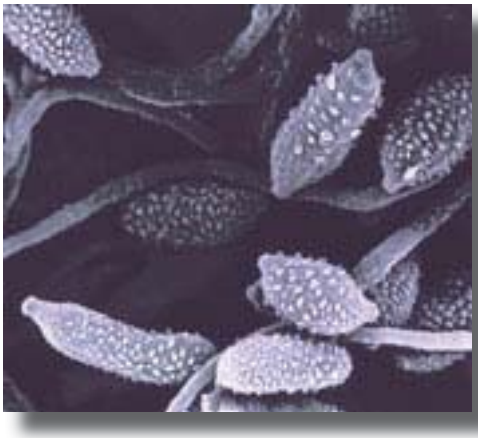
As the insert to this newsletter notes, it is indeed our 20th anniversary here at Environmental Standards. We have grown from a one-dimensional consulting organization to a focused consulting firm with specialized abilities in a few key markets. But as hard as we try, we are not perfect. If at any time you feel that you are not getting what you deserve from our organization and employees, be it delivery of a final report, or the way the telephone is answered when you call, let us know. We will fix it.

Did You Know?

Lead-zinc mines dug by the Romans in Wales are still a source of groundwater contamination nearly 2,000 years since their first use.

Scientists Agree To Disagree When It Comes To Mold

The scientific community agrees upon a great many things when it comes to the topic of mold and its effects. Among the agreed-upon issues are that some molds are edible, mold is ubiquitous, airborne mold spores can trigger allergic reactions and asthma attacks, some molds grow best in areas of increased moisture (high relative humidity or moisture intrusion), and the best way to prevent mold from proliferating is to remove the source of moisture.



Alternatively, the scientific community disagrees on a great many things when it comes to the topic of mold effects. Two of the major points of disagreement are that mold can cause asthma to develop in humans and that mold mycotoxins can cause severe health effects such as nervous system disorders. The disagreement is fueled by the lack of sufficient scientific studies and the feasibility of breathing in enough mycotoxin to trigger adverse effects.

These types of disagreements in the scientific community have proven to be an excellent defensive tool during litigation. Without agreement among experts, the mold evidence is not allowed to see the courtroom. While this disagreement is good from a liability standpoint, it does not help employers and building owners/operators when mold is suspected or observed.

Mold growth is not particularly attractive to look at, the factors contributing to mold proliferation are not typically conducive to a pleasant work environment, and the allergic effects should demand the attention of employers and building owners/operators. The potential reduction in employee productivity and potential for lost rental revenues are typically motivation for employers and building owners/operators to take action when mold is suspected or observed.

One of the best ways to address mold and other indoor environmental issues is by having a documented action plan. How can a plan be a great way to address issues? The action plan should include items such as identification of contact people within the company and vendors, communication/notification procedures, and other aspects. Following the action plan will provide structured reaction to problems, will increase the speed of response, and may also reduce the cost.

Mold is a “hot button” issue with both employees and tenants. With “experts” having differing opinions and the media generally focusing on high-dollar awards, the general public is still confused and afraid of mold contamination. The “jury” is still out on the more severe health effects attributed to mold and the amounts that will cause a problem.

If you would like more information on developing an action plan or if you have other questions about indoor environmental issues, please contact Indoor Air Quality Professional Stephen Zeiner at 610-935-5577.

SWEP Award Sponsorship Tradition Continues

Environmental Standards once again generously contributed to the Greater Philadelphia Society of Women Environmental Professionals (SWEP) annual Touchstone Award reception by serving as one of the major sponsors of the event, which was held this past November in Philadelphia. The Touchstone Award recognizes a woman who has contributed to an environmental field of practice, including government, private industry, and non-profit sectors, and whose contributions reflect the mission statement of SWEP. Award candidates are nominated by their peers and the winners are selected by the SWEP of Greater Philadelphia Board of Directors. The 2006 award recipient was Kathy Klein, Executive Director of the Partnership for the Delaware Estuary. Commissioner Lisa Jackson of the New Jersey Department of Environmental Protection (NJ DEP) served as the Keynote Speaker at the event.

New Jersey Passes New PCB PMP Rule

On December 19, 2006, New Jersey passed its proposed rule entitled Monitoring and Pollutant Minimization Plans (PMPs) for Polychlorinated Biphenyls (PCBs). The rule, which was published in the New Jersey Register on January 16, 2007, was established in an effort to reduce PCB loading to New Jersey’s PCB-impaired waters by requiring dischargers to develop and implement PCB PMPs. The rule closely resembles a similar rule adopted in 2005 by the Delaware River Basin Commission (DRBC).

With the adoption of this rule, major facilities, as defined and listed in the rule, will be required to monitor PCB discharges and, based on the results of the monitoring, develop and implement a PMP with the goal of identifying and eliminating discrete sources of PCBs. Monitoring will include sampling during both wet and dry weather conditions and analyzing the samples for 209 PCB congeners.

Anticipating that the rule would be passed, Environmental Standards hosted a New Jersey Society of Women Environmental Professionals (SWEP) luncheon in November at the Princeton Plasma Physics Laboratory (PPPL) in Princeton, New Jersey. Environmental Standards Quality Assurance Specialist and Principal David Blye teamed with Kate Campbell of the law firm of Manko, Gold, Katcher & Fox and Tom Fikslin of the DRBC to present on the topic of PCB PMPs in light of the New Jersey proposed rule. Each of these speakers had considerable involvement in the development of the DRBC’s PCB PMP rule. Ms. Campbell introduced the New Jersey rule to the audience and identified its key components while Mr. Blye delved into the intricacies involved in monitoring and analyzing samples in accordance with the specifications of the rule. Dr. Fikslin closed out the program with a summary of the DRBC’s PCB PMP regulation, including case studies. The SWEP program was followed by a tour of the PPPL, a collaborative national center for plasma fusion science.

Environmental Standards has assisted several facilities on the Delaware River develop PMP plans under the DRBC’s program. For assistance with the development or implementation of PCB PMPs, please contact Quality Assurance Specialist/Principal David Blye at 610-935-5577.

Logistics Auditing Certifications, Findings

Logistics Auditors Receive Certification

Environmental Standards' Logistics Auditing Coordinator Shaun H. Folkerts recently received his Certified Professional Environmental Auditor (CPEA) certification from the Board of Environmental, Health & Safety Auditor Certifications (BEAC). This certification followed a long and thorough formal process of independent board review of his work experience, training, education, references, and career/history in the discipline of environmental auditing. The certification process was completed and certification was granted following successful completion of a comprehensive six-hour examination.

In addition, Logistics Auditor MurrayLee Starke completed the Basic 49 CFR/Air/Sea course. This four-day course included instruction in the regulatory requirements of Title 49 for the domestic transportation of hazardous materials via highway, rail, and water, and ICAL/IATA requirements for the international transportation of dangerous goods by air, and IMDG Code requirements for transportation of dangerous goods by vessel.

Environmental Standards Logistics Auditing professionals continue to seek out new personal and professional growth and improvement opportunities and remain very much in touch with the ever-changing requirements of Health, Safety, Security, and Environmental (HSSE) auditing. Contact Ruth Forman at 610.935.5577 to learn how Environmental Standards can help your company with its internal and external/third-party HSSE assessment needs.

A Changing Lifestyle Depends On Minerals

The following statistics were provided by the Mineral Information Institute.

In a lifetime, every American will need:

- 1,319 pounds of copper
- 1,648 Troy ounces of gold
- 588,906 pounds of coal
- 31,040 pounds of salt
- 1.71 million pounds of stone, sand and gravel
- 83,296 gallons of petroleum
- 854 pounds of lead

Top-10 Findings Campaign

Throughout 2006, the Logistics Auditing Department at Environmental Standards embarked on a campaign to announce the Top-10 Findings our personnel had gathered during years of conducting audits of our clients' Logistics Service Providers (LSPs). We presented "real-world" issues involving safety equipment, emergency readiness, and communication via a monthly postcard mailing. Showcasing these findings was our way of making clients and potential clients aware of specific issues that could be encountered at their subcontracted LSP facilities.

To refresh your memory of our findings, or to see each finding for the first time, check

out the "ES News" section on the home page of our website – www.envstd.com. There you will find a link to copies of each postcard, including descriptions of each finding.

Spam, Spam, Spam, Spam.....

It has been estimated that 100 million spam e-mail messages are sent every day. At Environmental Standards, we receive more than 3,500; while that is a mere drop in the bucket, we apply several technologies in an attempt to differentiate the e-mails that matter from the ones that do not. We are a Microsoft-based office, and we use Microsoft junk mail screening technologies; critical communications may be occasionally missed if sent only by e-mail. If you have a critical file to send or information to pass on that we are not expecting, your message and any attachments could be deleted as junk mail before the intended recipient sees it. While it does not happen often, when it does, there can be severe consequences.

Because of the spam phenomenon it has become the norm to follow up your e-mails with phone calls to verify that critical files and communications have been received.

Environmental Standards Exhibits At Intergovernmental Technology Conference

Environmental Standards Information Technologies professionals recently joined nearly 100 exhibitors and thousands of representatives from city, county, state, and federal agencies along the East Coast at the 11th Annual Intergovernmental Technology East Conference in Harrisburg, Pennsylvania.

Among the topics discussed during this two-day conference were how to effectively communicate technology changes, how advanced analytical solutions can solve complex business problems, and security and identity management solutions for government operations at all levels.

Visitors to our booth learned about Environmental Standards' unique web-based services designed to coordinate environmental data and provide clients with seamless access to project-specific information. In particular, we held demonstrations of EarthSoft's EQuIS® 5, a popular Environmental Data Management system currently used by several US EPA regions and various state and local agencies. Attendees also saw examples of how our project teams develop timely, realistic, cost-effective, and accessible solutions for our clients' technical data needs.

For more information about our data management services, contact Environmental Standards Director of Information Technologies/Principal Dennis P. Callaghan at 610-935-5577.

Project Geologist Presents At Sediment Conference

The Fourth International Conference on Remediation of Contaminated Sediments was held on January 22-25, 2007, in Savannah, Georgia. The theme for the 2007 conference was "Efficient Assessment, Effective Management, Successful Remediation." The keynote speaker was Dr. Robert Ballard, a deep sea explorer who is perhaps best known for his discovery of the Titanic. Kevin Frysinger, a Senior Geologist at Environmental Standards, was invited to present a poster entitled "Extending the Utility of the Three-Dimensional Sediment Model." Rock Vitale, CEAC, CPC, Technical Director of Chemistry/Principal, and David R. Blye, CEAC, Quality Assurance Specialist/Principal, also represented Environmental Standards at the conference.

ENVIRONMENTAL STANDARDS

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Setting the Standards for Innovative Environmental Solutions

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Did you know?

- Every year, 47,500 pounds of new minerals must be provided for every person in the United States to make the things we use.
- State highway departments, turnpike authorities, municipal street departments, and other organizations annually purchase 9 million tons of salt and other deicing chemicals with a total value of about $140 million.
- According to *Computerworld* magazine, a recent study shows that computer servers accounted for 1.2% of all the power used in the United States in 2005 — with a total electricity bill of $2.7 billion.

An Open Letter From Rock J. Vitale

20th Anniversary Year

The phrase "Happy New Year" is very special for Environmental Standards this year because 2007 marks the 20th year anniversary for our firm. On November 1, 1987, we opened the doors of our original Valley Forge, Pennsylvania, office as a niche provider of environmental services to the industrial sector — with a staff of two technical experts and one administrative professional. Today, Environmental Standards operates from our modern headquarters in Valley Forge and a branch office in Charlottesville, Virginia, with a unique mix of talented partners and more than 60 employees (many have been with the firm for 10 to 15 years).

Since 1987, our professionals have assisted clients in a variety of environmental projects within the auspices of the Clean Water Act, Superfund, RCRA, the Clean Air Act, and, more recently, complex sediment projects and TMDL studies. Often referred to as a "think tank," Environmental Standards is asked by our clients to think about their projects and provide innovative solutions to address their environmental liabilities. Our clients include many Fortune 50 corporations in the oil and petrochemical, pharmaceutical, transportation, mining, automotive, and aircraft manufacturing industries; we have completed projects in virtually all 50 states, Canada, Mexico, Europe, South America, Asia, and Australia.

Perhaps the most exciting work over the last few years has been associated with the Brownfields legislation that encourages cost-effective restoration of former industrial sites and provides protection from future liability. Over the last 20 years, it has been gratifying to see environmental cleanup that has resulted in fish reappearing in formerly polluted rivers, high-tech manufacturing locating on previously abandoned industrial sites, and rundown waterfront properties transformed into desirable residential communities.

On a personal level, leading Environmental Standards' growth into an established 20-year old company has provided tremendous satisfaction. I am grateful to my partners — David Blye, who hired me to be *his* boss to establish a former employer's chemistry department; Gerry Kirkpatrick, who is not only a geosciences technical wizard but also serves as the firm's COO; Dan Claycomb, who was hired as a staff geologist and is now Director of Geosciences; Ruth Forman, who was among my first staff chemistry hires; and Dennis Callaghan, who was originally hired to keep our internal computer systems operating and is now Director of Information Technologies. In addition, I appreciate and marvel at the hard work of the entire staff, which is second to none in technical expertise and dedication.

I would also like to acknowledge my wife, who told me (at age 27) to "go for it" as I contemplated resigning from my prior employer to start this company. Last but not least, I would like to thank Environmental Standards' clients and readers of this newsletter for your support. I hope to see you at our 20th Anniversary Celebration this fall.

Sincerely,

Rock J. Vitale, CEAC, CPC
Founder and CEO

ENVIRONMENTAL STANDARDS

20 Years — of Innovative Solutions