

THE STANDARD

Volume XIV
September 2008 - Issue III

www.envstd.com

New Regional Screening Levels Introduced

Are you tired of working with three different sets of US EPA screening levels? Confused with trying to figure out the difference between Region III Risk-Based Concentrations (RBCs), Region IX Preliminary Remediation Goals (PRGs), and Region VI Human Health Medium-Specific Screening Levels (HHMSSLs)? Wondering why some compounds have lower screening levels in some regions and higher screening levels in other regions? At long last, the US EPA has published "Regional Screening Levels for Chemical Contaminants at Superfund Sites" (Regional Screening Levels or RSLs) to alleviate all this confusion and to provide a single set of risk-based analyte screening concentrations.



Photo courtesy of US EPA.

The RSLs were developed under an Interagency Agreement with the US Department of Energy's Oak Ridge

National Laboratory (ORNL). ORNL had already been managing its own Risk Assessment Information System (RAIS), a very comprehensive source of up-to-date toxicity values, physical property data, and other useful human health and ecological risk assessment information. The US EPA capitalized on ORNL's experience with the RAIS to help the agency develop the new RSLs in collaboration with Regions III, VI, and IX. The RSLs will be replacing RBCs, PRGs, and HHMSSLs as US EPA's new, single source of screening level values. ORNL will maintain the RSLs and keep the screening levels up-to-date using the latest toxicity values, default exposure assumptions, and physical and chemical properties.

The RSL website presents default screening levels for residential soil, outdoor worker soil, residential indoor air,

worker indoor air, worker ambient air, and tap water. Radionuclides and ecological effects are not addressed in the RSLs. The website also provides the equations used in the development of the RSLs as well as a list of the parameter values used as inputs. RSLs are provided for over 630 constituents -- over 250 more constituents than the Region III RBCs and over 150 more constituents than the Region VI HHMSSLs.

Implementation and Update Schedule

For projects that have been initiated using the RBCs, PRGs, or HHMSSLs, these screening levels may still be used on those projects; however, new projects will likely require the use of the new RSLs. The following information regarding the implementation of the RSLs has been provided on the regional websites:

Region III - "The October 2007 version of the Region III RBC Table will remain at this website temporarily, in case users experience any unforeseen technical difficulties in accessing the Regional Screening table, and to provide supporting information for

(Continued on Page 2)

Environmental Standards Ranked In Inc. 5000

Environmental Standards, Inc. was named to Inc.com's annual ranking of the 5000 fastest-growing private companies in the country. The list is a comprehensive look at an important segment of the economy – America's independent-minded entrepreneurs.

The 2008 Inc. 5000 list measures revenue growth from 2004 through 2007. To qualify, companies must be US-based and privately held as of December 31, 2007, and have had at least \$200,000 in revenue in 2004 and \$2 million in 2007. Environmental Standards, now a 61-person environmental consulting firm, grew 54.1% from 2004 to 2007. ■



Featured Topics

Virtualization - A Green Technology.....	2
Higher Education Sustainability Act.....	3
Virginia Adopts NELAC Standards.....	3
Cleanup For Cleaners	4
Even Tinier.....	4
Closure For Brownfield Property.....	5
QA - Consumer Product Testing.....	5
Ask The Expert.....	6
Brownfield To Become Food Distribution Center.....	6
Pennsylvania UECA.....	7
Safe Drinking Water Update.....	7



(Continued from Page 1 - Screening Levels)

users who may be in the middle of using the October 2007 version for risk assessments already in progress. However, it is Region III's general expectation that use of the Regional Screening table will be phased in beginning immediately, and that the Regional Screening table serves as the Spring 2008 update to the Region III RBC table."

Region VI - "The current Region 6 screening table will remain on the internet until December to allow time for the transition."

Region IX - "The 2004 version of the Region 9 PRG Table will remain at this website temporarily in case users need to reference this historical document. However, the 2004 Table should no longer be used for contaminant screening of environmental media because it has been replaced with the more current [RSL] Table... ."

The US EPA anticipates updating the RSLs approximately semiannually. The *beta* release version may initially be updated sooner to correct any errors or accommodate significant user feedback. In the meantime, the "What's New" page serves

as a good source of information on updates and changes made to the RSLs.

Some Significant Changes

For some compounds, the new RSLs present some significant changes in screening values; these changes may result in values that are substantially higher or lower than the previous screening levels. For example, the residential and industrial soil RSLs for chloroform, ethylbenzene, and naphthalene are significantly lower than their respective RBCs. Conversely, the industrial soil RSLs for *cis* 1,2-dichloroethene, trichloroethene, and toluene are significantly higher than the industrial soil PRGs. For other analytes, such as arsenic, the RSLs are the same or only slightly different than the former RBCs/PRGs/HHMSSLs.

Some of the differences in the screening levels are likely to be the result of the incorporation of some new or newer policies and guidance that have not been integrated into previous screening level tables. According to US EPA Region III's website, the primary differences between the RBCs and the RSLs include the following:

- Oral-to-inhalation extrapolation for the development of inhalation toxicity factors has been discontinued because the availability of inhalation toxicity data has increased substantially.
- The dermal and inhalation pathways are now included in the screening levels (these exposure routes were not historically included in the RBCs).
- Reference concentrations (RfCs) and inhalation unit risk (IUR) values are used in the intake calculations instead of reference doses (RfDs) and cancer risk factors (CSFs). The US EPA intends to recommend the use of RfCs and IURs in its forthcoming guidance on inhalation exposures.
- The RSLs include a new category of screening values -- inhalation of ambient air by an industrial worker.

More information about the RSLs can be found on the website: <http://epa-prgs.oml.gov/chemicals/index.shtml>. If you have specific questions about the new values, contact Kathy Zvarick, Manager of Risk Assessment Services, at 610-935-5577. ■

Virtualization - A Green Technology

Today, one of the hottest topics in computer services is Virtualization. Virtualization is a technology that implements machines in software that execute operating systems or programs. Virtualization allows a single piece of server hardware to contain many virtual servers that are fully isolated from each other.

Why is this technology "green"? By allowing more than one operating system (OS) and application to co-exist on one physical server, many resources are shared. The average central processing unit (CPU) utilization of a physical server dedicated to a single OS or application is approximately 7%. By implementing virtualization and loading a physical server with virtual machines, allowing for CPU headroom, one can have 5 to 10 virtual servers running with a projected CPU utilization of 50%. For large operations, this enables dramatic reductions in power, cooling, and space requirements. The power reduction benefits are even recognized by government entities. In fact, Pennsylvania recently enacted legislation

called the Alternative Energy Investment Act, which will provide grants or loans for data center consolidation projects based on virtualization.

Reducing our carbon footprint is a good thing, but we also use this technology to increase our server uptime and decrease recovery time from systems issues or disasters. Using virtualization, the separation of the hardware and the OS or application enables live failover from



one physical server to another, flexible capacity management among those servers, and rapid systems recovery of any particular OS or application failure. This technology also eases testing and maintenance of systems. Live snapshots that can be moved to another virtual host on any other type of hardware for testing patches and new applications can be created of any system or application running on any piece of hardware. If the test system fails for any reason, the snapshot can be restarted and the operation performed again -- without a time consuming rebuild of the test environment.

Few computer innovations provide the benefits of dramatic reductions in metered electricity while increasing the usability and reliability of the impacted systems. For more information about this new information technology service, contact Director of Information Technologies Dennis P. Callaghan at 610-935-5577. ■

On The Road Again

The remainder of 2008 looks to be a busy time as Environmental Standards professionals “hit the road” to attend conferences and seminars. We look forward to seeing you at the upcoming events.

September 15-16, 2008 - Senior Quality Assurance Chemist Lester J. Dupes, CEAC, and Technical Director of Chemistry Rock J. Vitale, CEAC, CPC, will present their poster, “Ensuring Compliance and Data Defensibility Through Laboratory Auditing,” at the **National Petrochemical Refiners Association Environmental Conference** in San Antonio, Texas.

September 16-17, 2008 - Environmental Standards representatives will attend the **Virginia Industry Environmental Conference** in Richmond, Virginia.

September 23-24, 2008 - Environmental Standards will attend the **ICSC 2008 Pennsylvania/New Jersey/Delaware Idea**

Exchange at the Pennsylvania Convention Center in Philadelphia, Pennsylvania.

September 30, 2008 - Environmental Standards representatives will attend the **Sediment Management Work Group (SMWG) Sponsor Forum and Fall Meeting** at the Woodlands Resort and Convention Center in Houston, Texas.

October 1-2, 2008 - Environmental Standards representatives will attend the **4th Annual Pennsylvania Brownfields Conference** in Harrisburg, Pennsylvania.

October 16, 2008 - Environmental Standards representatives will exhibit at the **Pennsylvania Chamber of Business and Industry Environmental Compliance Issues Conference** in Lehigh Valley, Pennsylvania.

October 20-23, 2008 - The **Annual Conference on Soils, Sediments and Water** will be held at the University of Massachusetts in Amherst. Environmental Standards professionals have submitted an abstract for this year’s conference.

November 4-6, 2008 - The **2008 Railroad Environmental Conference (RREC)** will be held on the campus of the University of Illinois at Urbana-Champaign. Environmental Standards professionals have submitted an abstract for the conference and will be in attendance.

November 6, 2008 - Environmental Standards will exhibit at the **Pennsylvania Chamber of Business and Industry Environmental Compliance Issues Conference** in Valley Forge, Pennsylvania.

November 6-7, 2008 - Principal Geoscientist Gerald L. Kirkpatrick, P.G., and Senior Geoscientist Joseph P. Kraycik, P.G., will present at the **American Institute of Professional Geologists (AIPG) Innovative Remediation Technology Conference** in Denver, Colorado. Their presentations are titled “Bioremediation of Chlorinated Solvents in the Brunswick Shale of Southeast Pennsylvania” and “Design and Implementation of *In-Situ* Groundwater Bioremediation Technologies at a Chlorinated Ethene Release Site,” respectively. ■

Higher Education Sustainability Act



Congress passed the Higher Education Sustainability Act (HESA) on July 31, 2008, as part of the Higher Education Opportunity Act of 2008. HESA, which represents the first new environmental

education funding program authorized in 18 years. President Bush signed HESA into law on August 14, 2008.

According to the 1987 Brundtland Report (World Commission on Environment and Development Report – “Our Common Future”), sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” HESA is intended to advance this goal by the establishment of a “University Sustainability Grant Program” to encourage colleges and universities to implement programs that promote the principles of environmental sustainability (e.g., development of alternative energy sources). Funding for the program is

expected to be appropriated beginning in Fiscal Year 2010.

Congressman Ehlers of Michigan (an original sponsor in the House of Representatives) expressed his enthusiasm for HESA as follows: “What better way to promote sustainability than to encourage our institutions of higher learning to create academic programs to teach its concepts, and to implement sustainable practices themselves. Society will reap the benefits of the excellent return on investment gained by educating students in sustainable practices.” ■

Commonwealth of Virginia Approves NELAC Program

The Commonwealth of Virginia published “final” regulations in the August 18, 2008, issue of the *Virginia Register of Regulations*, establishing a NELAC Accreditation Program impacting both commercial (Chapter 45) and non-commercial (Chapter 46) laboratories performing work in Virginia.

Important Dates:

- September 18, 2008 – Scheduled adoption date
- October 1, 2008 – Scheduled effective date
- March 30, 2009 – Deadline for commercial laboratories to submit

an application to Department of General Services (DGS) / Division of Consolidated Laboratory Services (DCLS)

- May 29, 2009 – Deadline for non-commercial laboratories to submit an application to DGS/DCLS

In addition, NELAC accredited laboratories that intend to continue to serve in Virginia must also provide an application by the respective deadline.

After working with hundreds of laboratories throughout the United States and abroad, it has been our experience that it can take a considerable amount of time to add or

change procedures to comply with new regulations. We strongly recommend that you determine your needs early and create an implementation plan that affords the maximum amount of time for compliance.

Environmental Standards’ professional quality assurance chemists participate on NELAC expert committees, audit to NELAC standards, and perform gap analysis on laboratory quality programs. Should you have questions about our services or the changing regulations, please contact Senior Quality Assurance Chemist Patrick A. Conlon at 610-935-5577. ■

Even Tinier

Environmental Standards received a lot of positive feedback from readers about our article, "Just How Tiny is a PPM or PPB?" in the June 2008 issue of *The Standard*. One of our readers, a client in Indianapolis, suggested a similar analysis of ppt and ppq levels, which some laboratories are currently achieving for dioxins/furans, PCB congeners, and mercury analyses. Thanks for the suggestion, and so as not to disappoint, we have compiled the following "equivalencies."

1 part per trillion (ppt or ng/kg or ng/L) is approximately equivalent to:

- 1 second of time in approximately 31,700 years.
- 1 square foot of floor tile on a kitchen floor the size of Indiana.
- 1 drop of detergent in enough dishwater to fill a string of railroad tank cars 10 miles long.
- 1 square inch in 250 square miles.
- 1 inch to 16 million miles (a 6-inch leap on a journey to the sun).
- 1 second in 320 centuries.
- 1 cent to \$10 billion.

1 part per quadrillion (ppq or pg/kg or pg/L) is approximately equivalent to:

- 1 second of time in approximately 31.7 million years.
- 1 postage stamp on a letter the size of California and Oregon.
- 1 human hair out of all the hair on all the heads of all the people in the world.
- 1 mile on a journey of 170 light years.
- 1 second in 320,000 centuries.
- 1 cm in a distance equal to 26 times the average distance from the earth to the moon.



Lastly, in an attempt to put the achievements of our Olympic swimmers in perspective, 1 ppt is approximately equivalent to 1 tsp in 80,000 Olympic-sized swimming pools (measuring 50m x 25m x 5m). One ppq is approximately equivalent to 1 tsp in 800 million Olympic-sized swimming pools. On a related note, 80,000 50-meter laps is about the distance an Olympic swimmer trains in a single year (almost 2,500 miles). ■

Cleanup For Cleaners

According to the State Coalition for the Remediation of Drycleaners (SCRD), there are approximately 36,000 active dry-cleaning facilities in the United States, and an estimated 75% of these are probably contaminated. These facilities include commercial, industrial, and coin-operated facilities where soil and groundwater have been contaminated by dry-cleaning solvents. In addition, there are an unknown number of former dry-cleaning sites that also are contaminated. Many dry-cleaning facilities are located in urban areas, and therefore, dry-cleaning solvent contamination has impacted public water supply wells and threatens many other well fields.

SCRD was established in 1998 with support from the US EPA Office of Superfund Remediation and Technology Innovation. SCRDR has representatives of states with established dry-cleaner remediation programs. Currently, the SCRDR member states include Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. In addition, participation in SCRDR as "Represented States" is open to states without drycleaner-specific programs but that are active in the remediation of dry-cleaner sites under other authorities. California, Maryland, New York, New Jersey, and Virginia are SCRDR "Represented States." Conspicuous in their absence from the coalition are Pennsylvania and Delaware. Neither state has an established drycleaner program, but there has been talk of considering some sort of reimbursement program in these states.

Most already established cleanup programs offer reimbursement for cleanups of dry-cleaner sites (loans or grants) to eligible dry-cleaning business operators and landlords for the assessment, cleanup, containment, or control of pollution resulting from releases of tetrachloroethylene, Stoddard solvent, or other chemicals used for dry-cleaning. In a few states, the monies may also be used for measures undertaken to prevent such pollution and to

provide potable drinking water to affected properties when necessary.

So where does the fund money come from? In most states with a cleanup fund, a very small amount of additional money is charged per customer (say a few cents) for each garment cleaned. But the money adds up and is placed in a common fund to pay for environmental cleanups, where needed. Cost pressures on the industry abound, and keeping customer prices competitive is always an issue.

As often is said, "The bottom line is always the bottom line." Dry-cleaning is, more often than not, a family business, and money is often not available to fund environmental cleanups, which can cost tens or even hundreds of thousands of dollars.

But the question is worth asking, "If the government can bail out the likes of Bear Sterns, why can't it help out small business as well?"

Environmental Standards has considerable experience in assessing and remediating dry-cleaner sites. For more information, contact Principal Geoscientist Gerry Kirkpatrick, P.G., at 610-935-5577. ■



An Environmental Standards geoscientist monitors bioremediation at a former drycleaner site in Pennsylvania.

Texas Initiative

The Texas Commission on Environmental Quality (TCEQ) is teaming with the Texas Parent Teachers Association (PTA) to reduce emissions from diesel school buses. The two organizations will distribute funds to school districts to install pollution control devices on school buses and to possibly replace older buses. Funding for this project will come from fines levied by TCEQ. ■



Act 2 Closure And Redevelopment Of A Brownfield Property

In 2004, Environmental Standards was retained by SKF USA Inc. (SKF) to provide environmental consulting services associated with groundwater characterization and remediation efforts at a former SKF ball bearing manufacturing facility located in Altoona, Pennsylvania. Environmental Standards conducted project activities as part of an ongoing environmental investigation and remediation program initiated at the Property in February 1988 to address petroleum and chlorinated hydrocarbon impacts to soil and groundwater from both on-site and off-site sources.

Environmental Standards' goal was to sufficiently characterize and remediate hydrocarbon impacts at the Property in order to obtain closure under the provisions of Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2). The Property is subject to a Memorandum of Agreement (MOA) between the United States Environmental Protection Agency (US EPA) and the Pennsylvania Department of Environmental Protection (PA DEP).

Between 2005 and 2007, Environmental Standards assumed responsibility of the quarterly groundwater monitoring activities and operation and maintenance of an on-site groundwater extraction and treatment system. Furthermore, additional groundwater remediation techniques that included Enhanced Fluid Recovery (EFR) activities (designed to recover separate phase liquid [SPL] from atop the groundwater surface) and an in-situ chemical oxidation (ISCO) program using a modified Fenton's reagent (designed to degrade dissolved-phase hydrocarbons in groundwater) were implemented. Groundwater gauging and ana-

lytical data generated during the remediation program demonstrated that the applied techniques had effectively reduced the volume of residual SPL to immeasurable levels and that there had been measurable effectiveness in degrading dissolved-phase hydrocarbons in groundwater.



SKF Property in Altoona, Pennsylvania, before remedial activities.



The SKF Property in Altoona, Pennsylvania, is currently undergoing preparation for commercial redevelopment, following a successful Act 2 Closure.

Environmental Standards performed several assessments to address residual dissolved-phase hydrocarbon impacts at the Property (including a Fate and Transport Analysis, a Human Health Risk Assessment, and an Ecological Receptor Evaluation). Based on these assessments, potential future groundwater exposures (through direct contact and vapor intrusion) were within acceptable levels (as defined by the PA DEP) and no complete exposure pathways existed for ecological receptors either on or off site.

In February 2008, Environmental Standards submitted a Final Report to PA DEP that demonstrated attainment of the Site-Specific Standard (SSS) for petroleum and chlorinated hydrocarbon impacts to groundwater at the Property under the provisions of Act 2. As part of the Final Report submittal, Environmental Standards prepared and recorded an Environmental Covenant in accordance with the Uniform Environmental Covenant Act (Act 68 of 2007). In July 2008, PA DEP issued its approval of the Final Report, thereby conveying relief of environmental liability for the substances investigated and remediated within the specified Site and media to the current and any future owner or occupant of the Site as provided under Act 2. This project was one of the first to reach closure under the MOA between the US EPA and PA DEP.

By obtaining relief of liability from the PA DEP, the property has become a real and tangible asset suitable for redevelopment. The Property was sold to a private developer in June 2005 and is currently undergoing preparation for commercial redevelopment. Redevelopment of the Property can be associated with several public benefits -- support of various commercial/retail services; creation of an estimated 250 jobs; generation of tax revenue at the local, state, and federal levels; and improvement of the aesthetics of the immediate area through the reuse of a Brownfield property for commercial purposes. ■

New Quality Assurance Challenges - Consumer Product Testing And Biomonitoring

There has been a dramatic increase in news articles/reports about a diverse assortment of toxins in various consumer products and human exposure to potentially dangerous substances. Likewise, Environmental Standards consulting chemists are increasingly being requested to provide quality assurance oversight for the sampling and analytical aspects of a range of complex products.

Addressing human health issues associated with consumer products (e.g., toys, food products, and storage bags) and human biological fluids presents intriguing challenges. These challenges include the collection of representative samples, the application and validation of sample extraction and analytical methods, and the preparation of appropriate quality plans for review and approval by organizations such as consumer advocacy groups, state and federal regulatory agencies, and the Center for Disease Control. Such investigations often lead to a high level of emotion and, invariably, litigation in some form or another; therefore, exhaustive research and an extensive level of documentation are necessary. Environmental Standards has established a "second-to-none" reputation for providing quality assurance oversight services in a wide variety of environmental and toxicology arenas because our chemists are uniquely qualified to assess individual product and chemical applications. For information about our quality assurance services, contact Technical Director of Chemistry/Principal Rock J. Vitale, CEAC, CPC, at 610-935-5577. ■

Ask The Expert

This issue of *The Standard* introduces the "Ask The Expert" column. We encourage you to submit questions that will be answered by our experts in future editions. (E-mail your question to awilson@envstd.com. If your question is selected for publication, we will send you a special gift.) The question below, frequently asked by our clients, is answered by Environmental Standards Quality Assurance Specialists Ruth L. Forman and David R. Blye.

Question: How can the laboratory report results less than the detection limit?

Commercial environmental laboratories report results in various ways -- to an instrument detection limit (IDL), a method detection limit (MDL), a quantitation limit (QL), or a reporting limit (RL). A laboratory should not report results below the detection limit.

An IDL is defined as the lowest concentration of an analyte that an instrument can detect (most commonly used to report metals). The most common definition is

"The Instrument Detection Limits (in ug/L) shall be determined by multiplying by 3, the average of the standard deviations obtained on three nonconsecutive days (e.g., Monday, Wednesday, and Friday) from the analysis of a standard solution (each analyte in reagent water) at a concentration 3x to 5x the instrument manufacturer's suggested IDL, with seven consecutive measurements per day." Note that an undigested standard solution is used in determining an IDL.

The MDL is based upon results of spiked reagent water or solid blank material that has gone through all steps of the sample preparation process. The MDL is considered the lowest concentration of an analyte that can be measured (not just detected) and reported with 99% confidence that the concentration is greater than zero. The MDL is typically determined by analyzing seven samples (commonly reagent water or blank matrix) spiked with the analyte at a concentration near the expected MDL that have gone through the entire preparation process. Several US EPA Regions and states have specific programs that require data to be reported to the MDL.

The QL is the level at which results can be accurately measured (not just detected) at a certain defined precision and bias. Common practice by most commercial laboratories is to set the QL to the concentration equivalent to the low calibration standard. Results that are reported below the laboratory's QL (i.e., reported to the IDL or MDL) are considered estimated results ("J" flagged values).

The practical quantitation limit (PQL) or RL is calculated as 3x to 10x the MDL. The RL may be an arbitrary limit (e.g., the IDL, the MDL, the PQL, or other) at which results are reported and may be a project-specific limit based on the data quality objectives for the project. If the RL is the IDL or MDL, then the laboratory cannot report data below the RL.

Conclusion: Confused? You should be! Strict definitions for reporting data are definitely lacking in our business. As such, it is very important for the customer to know how the laboratory is reporting results. A laboratory reporting values below its "detection limit" most likely has "tortured" the nomenclature. We recommend that clients be proactive and tell the laboratory how you want your data to be reported. ■

Brownfields Redevelopment Services For New Food Distribution Center

Environmental Standards played a key role in a recently announced Brownfields redevelopment project in Pennsylvania. In a deal with the Pennsylvania Infrastructure Investment Authority (PENVEST) announced this summer, an \$11 million low-interest loan has been authorized to help clean up a 48.6-acre brownfield and pave the way for a new food distribution center; this loan is in addition to about \$165 million in grants and subsidies from the state to develop and operate the site. O'Neill Properties Group of King of Prussia will use the funds to develop the site of a former auto salvage, scrap yard, and landfill into a \$212.5 million project with a ready-and-waiting base of tenants.



Above: Debris piles covered the Essington Avenue Property. Below: Excavation activities underway at the site.



conducted Phase I and Phase II work at the site and evaluated methane, soil gas, and other issues at the property. Agency negotiations and other remedial services were also provided. Gerry Kirkpatrick, Environmental Standards Principal Geoscientist, noted that the project team was challenged by many aspects of such a large project with so many diverse players. "We have been involved in nearly a dozen projects with the O'Neill Properties Group," he noted. "After doing this kind of work for 20 years, you begin to appreciate what a first-class developer can pull together. It takes vision and considerable patience to make a project like this succeed. We're very proud to have played a role in it."

Cleanup activities included removing nearly a quarter of a million abandoned

tires and half a million pounds of solid waste. The environmental cleanup and redevelopment will help solve a problem that has been simmering along the waterfront for years now -- how the city of Philadelphia and state of Pennsylvania would be able to help the center, officially known as the Philadelphia Regional Produce Market, expand and stay in the Commonwealth.

The new site will create more than 300 new jobs and maintain 1,250 others, according to PENVEST. The Philadelphia Regional Produce Market opened in 1959. O'Neill Properties Group, operating as Essington Avenue Partners, will build a 686,000 square-foot distribution center after Environmental Standards and other contractor environmental remediation services are complete. It will be the second largest produce distribution terminal in the country -- due to open in 2010.

Title to the land will be transferred to the Philadelphia Regional Port Authority. O'Neill Properties Group will lease the land for 40 years; after construction, the site will be subleased to the Philadelphia Fresh Food Terminal Corp. (PFFTC). PFFTC will subsequently lease space to food distributors. ■

Environmental Standards, the lead environmental consultant on the project,

Pennsylvania Passes Uniform Environmental Covenant Act

After several years of consideration in Pennsylvania's legislature, the Commonwealth's Uniform Environmental Covenant Act (UECA) became effective on February 19, 2008. The passing of UECA marks one of the most significant legislative enactments affecting Pennsylvania's Land Recycling Program since its passage in 1995.



under Pennsylvania law. UECA also requires the PA DEP to develop registry to track properties with environmental covenants. PA DEP is in the process of developing this registry.

Key components of a covenant include a property description, a description of the contamination, a description of the land use limitations, and a commitment to report the status of the land use controls to the PA DEP on a regular basis (e.g., annually). The covenant is recorded with the deed for the property. For Pennsylvania sites, the PA DEP must approve the covenant and the document will run with the land unless terminated under one of the provisions of UECA. The holder of the covenant may be any person, including the current owner or the remediator. Parties with the ability to enforce the covenant include the holder, the PA DEP, the municipality in which the property is located, and other regulatory agencies as appropriate (e.g., US EPA). Draft covenants should be provided to the PA DEP prior to the submission of a Final Report on a property to ensure that the contents of the covenant are satisfactory when submitted for approval with the Final Report.

UECA allows the PA DEP to waive the requirement for an environmental covenant, but the PA DEP does not anticipate exercising this option very

frequently. The PA DEP is initially focusing its efforts on developing and approving covenants for sites that are currently in the Land Recycling Program and other environmental programs in the Commonwealth. Sites that have already been closed are a second priority; however, instruments imposing activity and use limitations on sites closed prior to the enactment of UECA must be converted to covenants within a 5-year timeframe.

UECA not only applies to properties entered into the Land Recycling Program but also to Storage Tank Program, Hazardous Sites Cleanup Act (HSCA), and Solid Waste Management Act properties. The PA DEP has developed a model covenant on which site-specific covenants can be based, a "Frequently Asked Questions" document, and a Fact Sheet, all of which are available on PA DEP's website. The requirements of UECA in Pennsylvania continue to evolve as the PA DEP accepts comments and questions from the public and addresses particularly complex or unusual site-specific issues (e.g., issues associated with plumes migrating off site). The PA DEP will be developing regulations to implement the Act, but the regulations are likely a few years away. Some version of UECA has been enacted in 22 states since its inception.

For more information on UECA or for help in developing an environmental covenant, please contact Manager of Risk Assessment Kathy Zvarick at 610-935-5577. ■

UECA grew out of a national effort to create a standardized approach to ensuring the implementation and enforceability of activity and use limitations (e.g., institutional and engineering controls) placed on contaminated properties. An audit conducted by the Pennsylvania Department of Environmental Protection (PA DEP) a few years ago indicated that a majority of sites closed under the Land Recycling Program did not have the required legal documentation or controls in place. Out of 50 sites in the PA DEP's Southeast Region alone, 25 sites did not have the required engineering controls in place and 34 sites did not have the required deed restrictions in place.

The major component of UECA requires the use of environmental covenants whenever an engineering or institutional control is used to achieve a remediation standard under the Land Recycling Program for any cleanup conducted

US EPA: No Regulatory Action Needed For Eleven Chemicals

The 1996 Safe Drinking Water Act (SDWA) Amendments (Section 1412(b)(1)) direct US EPA to publish a list of currently unregulated contaminants that may pose risks for drinking water (referred to as the Contaminant Candidate List or CCL) and to make determinations on whether to regulate at least five contaminants from the CCL with a national primary drinking water regulation (NPDWR).

Recently, US EPA made determination on the following 11 CCL contaminants -- boron; the dacthal mono- and di-acid degradates; 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene (DDE); 1,3-dichloropropene; 2,4-dinitrotoluene; 2,6-dinitrotoluene; s-ethyl dipropylthio-carbamate (EPTC); fonofos; terbac; and

1,1,2,2-tetrachloroethane. Additionally, the Agency released a document that provided information and data on several contaminants [metolachlor, methyl tertiary-butyl ether (MTBE), and nine microbial contaminants] for which no regulatory determination has been made at this time.

In summary, US EPA decided that no regulatory action is necessary for the following contaminants: boron; the dacthal mono- and di-acid degradates; DDE; 1,3-dichloropropene; 2,4-dinitrotoluene; 2,6-dinitrotoluene; EPTC; fonofos; terbac; and 1,1,2,2-tetrachloroethane.



Complete information and documentation of the determinations is available at http://www.epa.gov/OGWDW/ccl/pdfs/reg_determine2/report_ccl2-reg2_supportdocument_full.pdf.

The determination is significant in that many of Environmental

Standards' clients have specific issues related to these compounds in groundwater. Impacts at each site will vary depending on site location and regulatory status. For more information, feel free to contact Principal Geoscientist Gerry Kirkpatrick, P.G., at 610-935-5577. ■



Setting the Standards for Innovative Environmental Solutions

Corporate Headquarters

1140 Valley Forge Road
P.O. Box 810
Valley Forge, PA 19482
P: 610.935.5577 | F: 610.935.5583

Charlottesville Office

1218 East Market Street, Suite 100
Charlottesville, VA 22902
P: 434.293.4039 | F: 434.293.2715

E: solutions@envstd.com | W: www.envstd.com



Do you want to help us save some **trees**? To receive a copy of *The Standard* in your e-mail inbox, simply e-mail Marketing Coordinator Abby Wilson, awilson@envstd.com, and you will be added to our e-newsletter distribution list. Please reference “E-newsletter” in the subject.

Late-breaking PCB method related news. Visit www.envstd.com for more info.