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NEW FRACKING STANDARDS AGREED UPON

Some of the nation's biggest oil and gas companies have made peace with environmentalists, agreeing to a voluntary set of tough new standards for fracking in the Northeast that could lead to a major expansion of drilling.

The program announced in late March will work a lot like Underwriters Laboratories, which puts its familiar UL seal of approval on electrical appliances that meet its standards.

In this case, drilling and pipeline companies will be encouraged to submit to an independent review of their operations. If they are found to be abiding by a list of stringent measures to protect the air and water from pollution, they will receive the blessing of the new Pittsburgh-based Center for Sustainable Shale Development, created by environmentalists and the energy industry.

Many of the new standards appear to be stricter than state and federal regulations. If the project wins wide acceptance, it could ease or avert some of the ferocious battles over fracking that have been waged in statehouses and city halls. And it could hasten the expansion of fracking by making drilling more acceptable to states and communities that feared the environmental consequences.

Shell Oil Vice President Paul Goodfellow said this is the first time the company and environmental groups have reached agreement to create an entire system for reducing the effects of shale drilling.

"This is a bit of a unique coming-together of a variety of different interests," said Bruce Niemeyer, president of Chevron Appalachia.

In agreeing to the self-policing system, members of the industry said

(continued on page 3)

STEEL MILLS – AMONG AMERICA'S GREATEST REDEVELOPMENT OPPORTUNITIES

Former Steel Mill sites are turning out to be some of America's greatest redevelopment sites. We only need to turn to Pittsburgh, Pennsylvania to see fine examples. In Pittsburgh's "Southside" neighborhood, it's hard to find a parking space on most evenings due to the growing popularity of the redevelopment area.

Some of the elements of steelmaking in Southside have been saved, for example, the "Hot Metal Bridge". For many decades, hot metal was moved from one side of the Allegheny River to the other between the start and finish of steelmaking operations. On the Ohio River, the former LTV site in Aliquippa, is being eyed as a redevelopment site given its infrastructure and proximity to a potential nearby new ethylene cracker plant which is in the planning stages.

RT is currently working with its clients toward future redevelopment at steel-making locations in Pennsylvania and Ohio. Smart redevelopers seek to address environmental issues prior to, and during, redevelopment. To help with redevelopment, many former steel mill sites have buried steel product that can be excavated and recycled, and slag can also be a valuable construction material.

At the Aliquippa site, Beaver Valley Slag will be given an award by the Pennsylvania Environmental Council for its cleanup and reclamation efforts at the former LTV Plant. A recent visit by Pennsylvania Department of Environmental Protection Officials, from the Regional Office in Pittsburgh, and Central Office in Harrisburg, resulted in considerable happiness over the large scale, extensive steel reclamation, slag

material reuse, and initial redevelopment that has already taken place.

Although each steel mill is different with respect to materials present onsite, the size and scale of a steelmaking site along with existing infrastructure usually means that redevelopment opportunities are substantial. RT is proud to assist with redevelopment of steel mill sites to facilitate Brownfields Redevelopment, materials reclamation, and beneficial use on a scale that will sometimes span generations. The long term benefits to the environment are immeasurable, as metals which would otherwise slowly rust are instead removed from the ground reducing future threats to ground and surface water quality.

For more information on RT's steelmaking site redevelopment projects and capabilities, call Justin Lauterbach, our Pittsburgh Regional Manager at 724-288-4895 or by email at: jlauterbach@rtenv.com.

Look at us now:

- Professional Engineers
- Professional Geologists
- Certified Microbial Consultants
- Qualified Environmental Professionals
- Certified Professionals (OH)
- Licensed Site Remediation Professionals (NJ)

TABLE OF CONTENTS

Staff and Project News	2
Federal Regulatory Updates	4-9
PA Updates	9
RT Energy Services Updates	10
NJ Updates	11-13
Technology Updates	13-17

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RT STAFF AND PROJECT NEWS

In early spring, RT was pleased to have many long term client real estate and development companies contacting the firm, signaling an uptick in real estate and development projects. Inquiries are coming from New Jersey and throughout Pennsylvania.

Current RT project assignments include:

- Gary Brown visited a steel mill in Ohio, planned for redevelopment, and work involving revisions to environmental permits.

- RT New Jersey staff were wrapping up a project involving remediation, and issuance of a Response Action Outcome Statement by our LSRP, at a solar farm site, where debris materials had been placed historically.

- Larry Bily was assisting a Western Pennsylvania hot mix asphalt plant operator, with air emissions reporting issues.

- Gary Brown represented construction trade organizations related to changes to stormwater permitting at surface mine sites. Gary also made three environmental presentations at the World of Asphalt Conference, in San Antonio, Texas on stormwater, RAP/millings and air permit issues.

- Jaci Evans was preparing Remedial Action Workplans and

Remedial Action Reports for projects involving former oil terminal facilities, as well as at a dry cleaners/shopping center site, all in New Jersey.

- Justin Lauterbach and Chrissy Lee were completing a number of asbestos containing material survey and abatement projects, for a retail grocery chain client, in Western Pennsylvania.

- Josh Hagadorn was working on grading plan applications, so as to be able to ramp up recovery and material reclamation operations at former steelmaking facilities, in Western Pennsylvania.

- Lisa Mascara was attending Marcellus Shale Coalition conferences representing the firm, for potential future work as RT Energy Services opportunities and projects go forward.

- Craig Herr was working with Adam Messner, Jeff Humpton and Lisa Nocco, on a number of Philadelphia residential redevelopment sites, in up and coming areas of the City, where redevelopment and housing prices are on the increase.

RT appreciates the opportunities our clients give us, and looks forward to being of service in the future.

-Gary Brown

12-15-12 Update

NEW PA DEP Technical Guidance - CLOSURE REQUIREMENTS FOR UNDERGROUND STORAGE TANK SYSTEMS.

TGM263-45--601

Call Gary Brown for more information.

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NEW FRACKING STANDARDS AGREED UPON (continued from page 1)

they realized they needed to do more to reassure the public about the safety of fracking. On the other side, environmentalist said they came to the conclusion that the hundreds of billions of dollars in oil and gas underground is going to be extracted one way or another and that working with the industry is the quickest path to making the process safer.

“We do recognize that this resource is going to be developed,” said Robert Vagt,

president of the Heinz Endowments, a charitable foundation that has bankrolled anti-fracking efforts. “We think that it can be done in a way that does not do violence to the environment.”

In addition to Shell and Chevron, the participants include the Environmental Defense Fund, the Clean Air Task Force, EQT Corporation, Consol Energy and the Pennsylvania Environmental Council, and the organizers hope to recruit others.

The new standards include limits on emissions of methane, a potent greenhouse gas, and the flaring, or burning off, of unwanted gas; reductions in engine emissions; groundwater monitoring and protection; improved well designs; stricter wastewater disposal; the use of less toxic fracking fluids; and seismic monitoring before drilling begins.

(South Jersey Times – 3/21/13)

AQUAPONICS – STATE OF THE ART RIVER ECOSYSTEM ENVIRONMENTAL MANAGEMENT IN PITTSBURGH

Tom Bryan’s family has been in the rock, gravel and cement business for over 130 years. His great, great grandfather, Frank Bryan, founded Frank Bryan, Inc., a gravel and concrete business which started on Pittsburgh’s historic South Side in 1883. Also the site of a former J&L Steel plant, Southside has undergone redevelopment and has attracted college students and young professionals.

Bryan’s primary business is in dredging the rivers of Western PA for the raw rocks and materials found on the bottoms of rivers and using it for construction material, mostly concrete. Today, Frank Bryan is the largest concrete manufacturer in the tri-state region.

So, how did Tom Bryan get to Aquaponics? As it turns out, the rivers of Western PA had been so polluted for so many years, that the Pennsylvania Department of Environmental Protection (PA DEP) didn’t concern itself with Frank Bryan, Inc., until recently.

Now that the rivers and streams of the Pittsburgh Region are recovering nicely, PA DEP has been taking a closer look at the possible impacts the dredging may have on the local environment. In particular, PA DEP

is concerned about the local freshwater mussel population. As the Bryans dredge the local waters for the rich aggregate to make concrete, some live mussels inevitably get captured and killed in the dredging operation.

There are over 300 kinds of freshwater mussels in the United States and Canada. They generally look like clams and provide a vital function in a river’s ecosystem by eating algae and bacteria. Freshwater mussels are also a vital food source for raccoons and other small mammals.

This is where Tom Bryan got creative with Aquaponics. He thought if there were a way to take the captured mussels from his operations, and bring them to full health, he could release them back to the wild.

In June 2012, Tom created an alternative, temporary habitat for some mussels using an Aquaponic setup in his Neville Island research facility. An IBC tote bin filled with Tilapia feeds another water tank that is used to grow algae. The algae eat the fish waste and the algae is then fed to the mussels in a third tank. The mussels happily eat the algae and the water is returned to the Tilapia tank, cleaned of algae and fish waste.

Whereas traditional Aquaponic gardeners will use the nutrient rich fish waste to grow vegetables, Tom Bryan is using Aquaponics to grow algae to feed to his mussels while they are temporarily away from their natural habitat.

So far, Tom has killed only one mussel out of 79. He has an interesting setup where a video camera records the slow movements of the mussels over long periods of time. Because they move so slowly, it is very hard for humans to notice their movements.

Tom calls his setup a “spa for mussels” and it is in an experiment to see if he can reclaim some wayward mussels who get caught in the Bryan dredging operations. I call it another creative, intensive use of Aquaponics.

Many people are under the impression that production of construction materials creates harm to the environment. Tom Bryan’s operations produce materials without mining, keep the river bottom clear and open and use state of the art environmental management technologies to mitigate impacts. Few dredging operations rise to this level of environmental stewardship. We at RT think that this is a job well done!

(Pittsburgh Aquaponics – 11/28/12)

GARY BROWN IS A CERTIFIED PROFESSIONAL IN OHIO

Gary Brown, President of RT Environmental Services, Inc., has obtained his Certified Professional credential in Ohio. Similar to New Jersey and Massachusetts, Ohio certifies professionals for site investigation and cleanup remediation work.

A potential Ohio upcoming project involves a steel mill, which was involved in a bankruptcy proceeding. Previously, Mr. Brown formulated a Remediation Plan for a closed china manufacturing facility near Cleveland where the china components had leaded glaze, and there was a substantial cleanup of discharges from the manufacturing process, including disposal of slip materials and china fragments.

FEDERAL REGULATORY UPDATES

COURT REJECTS EPA USE OF STORMWATER 'FLOW' TO SET TMDL

A federal district judge has ruled that EPA cannot regulate water "flow" as a surrogate for sediment.

In a January 3 order in *Virginia Department of Transportation (VDOT), et al., v. EPA*, Judge Liam O'Grady of the U.S. District Court for the Eastern District of Virginia remanded to EPA its total maximum daily load (TMDL) plan for Accotink Creek in Fairfax County, VA, requiring the agency to revise its flow-based TMDL consistent with the ruling.

"If sediment level is truly a 'a function of' the amount of stormwater runoff, as EPA claims, then the TMDL could just as easily be expressed in terms of sediment load," he added.

EPA's TMDL, which required a 48.4 percent reduction of stormwater flow to the creek from a one-year, 24-hour storm event, was one of several agency efforts intended to tighten controls on stormwater runoff. The agency said that it adopted similar approaches when setting other TMDLs, but O'Grady noted in the ruling that they have all been challenged.

"It is evident that water itself – the very thing that the Clean Water Act is intended to protect – is not among those substances identified as a pollutant," Virginia Attorney General Ken Cuccinelli (R), who personally argued the case on behalf of the plaintiffs, said in his motion asking the court to grant judgment on the proceedings.

In his ruling O'Grady agreed, stating that "claiming that the stormwater maximum load is a surrogate for sediment, which is a pollutant and therefore regulable, does not bring stormwater within the ambit of EPA's TMDL authority."

EPA SEEKING DATA TO ASSESS NEED FOR COMMERCIAL LEAD PAINT RRP RULE

EPA is seeking data to determine whether it should continue with plans to propose a rule governing renovations and repairs of public and commercial buildings with lead paint, a controversial measure Senate Republicans have questioned, but that EPA agreed to consider as part of a 2009 settlement with environmental groups.

According to an amended settlement agreement, EPA has until July 1 2015, to either propose a rule covering renovation, repair and painting (RRP) in public and commercial buildings or determine those activities do not create lead-based paint hazards, according to a December 31, 2012, Federal Register notice.

In the December 31, 2012 *Federal Register* notice offering public comment, EPA says it is in the process of determining whether RRP activities on public and commercial building create health risks and requests information on the manufacture, sale and use of lead-based paint since 1978, as well as information specific to public and commercial buildings such as: how lead-based paint is used, how often renovations are needed, work practices, and dust generation and transportation from exterior and interior renovations.

EPA announced in 2012 that it planned to propose lead-safe work practices and other requirements for renovations on the exteriors of public and commercial buildings and to determine whether lead-based paint hazards are created by interior RRP projects in those buildings. "For those renovations in the interiors of public and commercial buildings that create lead-based paint hazards, EPA will propose regulations to address these hazards," according to a summary of the planned rule in the Unified Agenda.

(*Superfund Report* – 1/7/13)

EPA, AIR FORCE FEAR EXPANDING SCOPE OF 1,4-DIOXANE CONTAMINATION

EPA and Air Force officials are separately concerned that contamination of 1,4-dioxane, a likely carcinogen that is a contaminant at many hazardous waste sites, may be more widespread than previously believed in part because past test methods may have missed the contamination.

The Air Force is developing a sampling plan to be used at bases service-wide to test for the presence of the chemical, which was used as a solvent stabilizer, in light of stricter EPA screening levels and because prior, less stringent testing protocols may have missed identifying it as a contaminant at many sites.

At the same time, EPA regions are also considering whether to require additional retesting at solvent contaminated sites to determine if the chemical is detected in groundwater and, if so, whether additional treatment methods are needed to remediate the contamination. Their effort is being triggered by controversial new findings from researchers at the Air Force Center for Engineering and the Environment (AFCEE) who found for the first time that 1,4-dioxane is a co-contaminant with trichloroethylene (TCE) in groundwater – even though it was not used to stabilize TCE. TCE is one of the most widespread contaminants at hazardous waste sites, found at 291 Superfund sites.

The study, which was published in the *Integrated Environmental Assessment and Management* journal last year, explicitly warns that new discoveries of 1,4-dioxane contamination could delay cleanup completions and require more costly revisions to existing remedies, noting that there is strong evidence suggesting that 1,4-dioxane "will migrate much further than chlorinated solvents."

Dioxane has long been a concern in drinking water and at Superfund sites due to its use as a stabilizer in industrial solvents such as 1,1,1-trichloroethane (TCA) and at certain plastics manufacturing sites. In recent years, environmentalists and public health groups have questioned its appearance in consumer products like soaps and shampoos. Health care giant Johnson & Johnson announced in 2012 it would remove dioxane and other contaminants from consumer products by 2015.

A 2012 toxicological profile by the Agency for Toxic Substances & Disease Registry says the chemical is found at 31 National Priorities List sites.

FEDERAL UPDATES

- HazMat Transport, pg. 5
- RCRA Wipes, p. 8

Data on EPA's website says the greatest risk stems from low-level inhalation by workers exposed to the chemical. In 2010, EPA's Integrated Risk Information System listed the chemical as a likely carcinogen. A draft assessment released in 2012 proposed to maintain the classification but also suggested first-time inhalation risk estimates for both cancer and non-cancer risks. Federal agencies, including the Defense Department, as well as independent reviewers, have questioned EPA's proposed risk values.

Now the Air Force is revisiting the possibility that its bases have more widespread contamination of 1,4-dioxane than was previously determined due to new stricter EPA regional drinking water screening levels and updated testing methods that can detect at lower levels.

While the Air Force has sought to identify 1,4-dioxane in the past at its industrial sites and the methods for detection were sufficient for meeting standards at the time, the service is now looking to retest in light of new EPA regional water screening levels, according to Air Force environmental officials. EPA Regions III, IV and IX have developed a screening level of 6.1 micrograms per liter for 1,4-dioxane in drinking water, based on one in one million lifetime excess cancer risk level, according to a May 2012 EPA technical fact sheet on the chemical. The screening level is not enforceable and there are no federal drinking water standards at this time.

Concerns stem in part from the AFCEE research, which found 1,4-dioxane is being identified at Air Force sites contaminated with TCE. The study, titled "Co-Occurrence of 1,4-Dioxane with Trichloroethylene in Chlorinated Solvent Groundwater Plumes at US Air Force Installations: Fact or Fiction," found detections of 1,4 dioxane at sites with TCE, independent of TCA.

"Surprisingly, 64.4% of all 1,4-dioxane detections were associated with TCE independently," the researchers say in the abstract. "Given the extensive data set, these results conclusively demonstrate for the first time that 1,4-dioxane is a relatively common groundwater co-contaminant with TCE." The study authors recommend site investigations consider 1,4-dioxane as a potential co-contaminant of TCE at groundwater plume sites.

TCE was often used as a solvent at industrial sites in the 1960s and 1970s, and then due to concerns over contributions to smog, it was replaced with TCA, sources say. But many believe manufacturers did not use 1,4-dioxane as a stabilizer in TCE as it was unnecessary, sources say.

As a result, many are questioning the research findings. The Air Force headquarters environmental office is distancing itself from the findings, saying the research was not an Air Force-sanctioned study, and one expert on the chemical says the study failed to include whether a breakdown chemical of TCA was found at these sites.

FEDERAL REGULATORY UPDATES (Continued)

This source cites various reasons why 1,4-dioxane may be co-located with TCE even if it were not used as a stabilizer in TCE.

These reasons have to do with the migration pace of TCE and 1,4-dioxane, the quicker breakdown of TCA into another chemical, and the timing of solvent usage and release, as well as investigation histories, analytical capabilities and monitoring well placement, according to the source.

The AFCEE researchers acknowledge evidence regarding co-contamination of 1,4-dioxane and other chlorinated solvents like TCE has been "heavily debated." Despite this, the study is important in that it reveals the presence of 1,4-dioxane in a lot of places, the expert says. "The association [the AFCEE research] has documented is real but the context has to be underscored for how it got there," the source says.

Nonetheless, the study has triggered attention from an EPA regional groundwater forum, which in a November teleconference meeting discussed the paper. The forum is continuing to look at the issue.

In a summary of the teleconference, EPA says the paper could pose problems for previous and ongoing site investigations. At TCE sites, 1,4-dioxane may have been missed due to high detection limits for these sites.

EPA REVISES RICE RULES FOR STATIONARY ENGINES

In compliance with settlement agreements, the EPA finalized revisions to standards to reduce air pollution from stationary engines that generate electricity and power equipment at industrial, agricultural, oil and gas production, power generation, and other facilities.

The final revised rule announced recently will reduce the capital and annual costs of the original 2010 rules by \$287 million and \$139 million, respectively, while reducing harmful pollutants, including 2,800 tons per year (tpy) of hazardous air pollutants; 36,000 tpy of carbon monoxide; 2,800 tpy of particulate matter; 9,600 tpy of nitrogen oxides, and 36,000 tpy of volatile organic compounds.

Pollution emitted from the engines can cause cancer and other serious health effects including: aggravation of respiratory and cardiovascular disease; premature deaths in people with heart or lung disease, neurological, cardiovascular, liver, kidney health effects; and effects on immune and reproductive systems.

EPA estimates annual health benefits of the updated standards to be worth \$830 million to \$2.1 billion.

The final amendments to the 2010 "National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)" reflect new technical information submitted by stakeholders after the 2010 standards were issued. The updates will ensure that the standards are cost-effective, achievable, and protective, while continuing to provide significant emission reductions.

The amendments also specify how the standards apply to emergency engines used for emergency demand response.

(*Environmental Resource Center – 1/21/13*)

HAZARDOUS MATERIALS TRANSPORT REGULATIONS REVISED

The US Department of Transportation has recently published two notices in the Federal Register that are making changes to amend the Hazardous Materials Regulations (HMR). In the first rulemaking, which was published on March 11, the agency is making the following changes, which become effective on May 10, but compliance is optional now:

- Revise the Hazardous Materials Table (HMT) to correct an error in the transportation requirements for entries listed under the proper shipping name, "Hydrazine Dicarboxylic Acid Diazide."

- Revise the HMT to remove the entry for "Zinc ethyl, see Diethylzinc" that was superseded by proper shipping names adopted in a previous rulemaking.

- Add the inadvertently omitted entries for "Paint related material, flammable, corrosive (including paint thinning or reducing compound)" UN3469, PG II, and PG III to the Sec. 172.101 HMT.

- Remove references to special provisions B72 and B74 in 49 CFR 172.102.

- Revise special provision 138 in 49 CFR 172.102 to clarify the lead solubility calculation used to classify a material as a Marine Pollutant.

- Revise the shipping paper requirements in 49 CFR 172.203(e) to permit the placement of phrase "Residue last contained" before or after the basic shipping description sequence, or for rail shipments, directly preceding the proper shipping name in the basic shipping description sequence.

- Update the training recordkeeping requirements in 49 CFR 172.704 to specify that a hazmat employer must make hazmat employee training records available upon request, at a reasonable time and location, to an authorized official of the Department of Transportation or the Department of Homeland Security (DHS).

- Clarify that the material of trade exception in 49 CFR 173.6 may be used when transporting Division 2.1 and 2.2 gases in Dewar flasks.

- Clarify the lab pack provisions in 49 CFR 173.12 pertaining to temperature-controlled materials contained in a lab pack.

- Clarify the exceptions for external emergency self-closing valves on cargo tank motor vehicles (CTMVs) in 49 CFR 173.33(g) to specify that external emergency self-closing valves on MC 338 cargo tanks containing cryogenic liquids may remain open during transportation.

- Correct an inadvertent deletion of the 49 CFR 173.62 packaging requirements for explosives.

- Incorporate special permit DOT SP-13556 into 49 CFR 173.134, to authorize the transportation by motor vehicle of certain regulated medical wastes, designated as sharps, in non-DOT specification containers fitted into wheeled racks.

- Revise the requirements for cargo air transport of alcoholic beverages in 49 CFR 173.150 to harmonize with the International Civil Aviation Organization's (ICAO) Technical Instructions (TI).

- Clarify the exceptions in 49 CFR 173.159a for non-spillable batteries secured to skids or

pallets.

- Revise 49 CFR 178.2(c) to clarify the applicability of the closure notification requirements for packages containing residues.

- Correct regulatory citations in 49 CFR 178.2(c).

- Clarify the requirements for the Flame Penetration Resistance test specified for chemical oxygen generators and certain compressed gases in Appendix E to Part 178.

- Clarify the inspection record requirements in 49 CFR 180.416 for discharge systems of cargo tanks transporting liquefied compressed gases.

In an earlier rulemaking published on March 7, the agency is making the following changes, which become effective on May 6, but compliance is optional now:

- Revise 49 CFR 178.3 to clearly indicate that a manufacturer or third-party laboratory mark may not be used when continued certification of a packaging is conducted by someone other than the original manufacturer or third-party testing laboratory, unless specifically authorized by the original manufacturer or third-party testing laboratory.

- Revise 49 CFR 178.601(l), 178.801(l) and 178.955(i) to relax the record retention requirements for packaging test reports and provide a chart to clearly identify the retention requirements.

- Revise the Hazardous Materials Table by removing the listing for "NA1203, Gasohol, gasoline mixed with ethyl alcohol, with not more than 10% alcohol"; and removing reference to gasohol in Sections Sec. 172.336(c)(4) and 172.336(c)(5).

- Revise 49 CFR 172.101 to refer to 49 CFR 173.151 to harmonize internationally and provide a limited quantity exception for Division 4.1, Self-reactive solids and Self-reactive liquids, Types B through F.

- Add a reference in 49 CFR 178.601(c)(4) and 178.801(c)(7) to ASTM D4976-06 Standard Specification for Polyethylene Plastics Molding and Extrusion Materials to provide a range of acceptable resin tolerances in the plastic drum and IBC material.

- Allow smokeless powder classed as a Division 1.4C material to be reclassified as a Division 4.1 material to relax the regulatory requirements for these materials without compromising safety.

- Allow the Dangerous Cargo Manifest (DCM) to be in locations designated by the master of the vessel besides "on or near the vessel's bridge" while the vessel is in a United States port to ensure that the DCM is readily available to communicate to emergency responders and enforcement personnel the presence and nature of the hazardous materials on board a vessel.

(*Environmental Resource Center – 3/18/13*)

EARING TIE TO COAL ASH RULE, ADVOCATES PRESS EPA TO FLOAT POWER PLANT ELG

Environmentalists are urging EPA and the White House Office of Management & Budget (OMB) to propose strict effluent limitation guidelines (ELG) for coal- and steam-fired

FEDERAL REGULATORY UPDATES (Continued)

power plants by a court-ordered April 19 deadline, in part to address concerns that the agency may delay the water standard to coordinate the rule with its long-delayed coal ash waste disposal rule.

The advocates fear that coordinating the two rulemakings could further delay the ELG proposal because OMB may seek to review the costs associated with the regulations together. "I think OMB is seriously at the point of deciding when and where to issue the [ELG] rule," says one environmental attorney who met with administration officials on the proposed ELG Feb. 26.

Groups represented at the meeting included the Environmental Integrity Project, Sierra Club, Earthjustice, Clean Air Task Force, Souterh Environmental Law Center, Catawba Riverkeeper and others.

A second environmentalist familiar with the discussion noted that there is not a significant overlap between the ELG and EPA's planned Resource Conservation & Recovery Act (RCRA) rules for coal ash disposal to warrant tying them together, and adds that plaintiffs that forced EPA into a consent decree to issue the proposed ELG by April 19 are unwilling to agree to what would be another deadline extension.

"The waste rule is [one of] the first things [former Administrator] Lisa Jackson promised at the start of the administration, and we haven't seen hide nor hair of this rule – yet the ELG is ready to go and has a court deadline," the source says. "So when we're hearing that the agency wants to tie them together, it's not clear how EPA thinks that can happen."

EPA has, however, indicated that it believes it can meet the April target for issuing the proposal, environmentalists say.

EPA's proposed ELG is intended to revise technology standards for coal- and other steam-fired generators that were last updated in 1982. Environmentalists and others say the rules are needed because waste releases from the plants are getting more toxic as a result of treatment technologies needed to comply with increasingly stringer air rules, including the agency's maximum achievable control technology (MACT) air toxics rule for coal- and oil-fired power plants which is slated to take effect in 2015.

Environmentalists argue in their push for a strict ELG that because the existing standards only set limits for traditional pollutants, including oil and grease, total suspended solids and pH, states have often avoided limiting metals like mercury, selenium, arsenic, lead and other metals and metalloids that are likely to increase as a result of the air rules.

During the Feb. 26 meeting, environmentalists highlighted local examples of bioaccumulative metals and other pollutants associated with discharges from power plants. For example, the cited Duke University research that indicates that arsenic levels can increase in sediment from discharges from ash ponds, resulting in an "eruption" due to oxygen level changes that Duke researcher, Avner Vengosh, described as an

"arsenic volcano."

(By Bridget DiCosmo, *Superfund Report* - March 18, 2013)

EPA PUBLISHES GREENHOUSE GAS EMISSIONS DATA FOR LARGE FACILITIES

EPA recently posted the second year of greenhouse gas (GHGs) emissions data on its website, which provides public access to emissions data by sector, by GHG, and by geographic region such as county or state.

Greenhouse gases are the primary driver of climate change, which can lead to hotter, longer heat waves that threaten the health of the sick, poor, or elderly; increases in ground-level ozone pollution linked to asthma and other respiratory illnesses; as well as other threats to the health and welfare of Americans.

"Transparency ensures a better informed public, which leads to a better protected environment," said Gina McCarthy, assistant administrator for EPA's Office of Air and Radiation. "With this second data release, communities, businesses, and others can track and compare facilities' greenhouse gas emissions and identify opportunities to cut pollution, minimize wasted energy, and save money."

The 2011 data, collected through the congressionally mandated GHG Reporting Program, includes information from facilities in 41 source categories that emit large quantities of GHGs. The 2011 data also contains new data collected from 12 additional source categories, including petroleum and natural gas systems and coal mines.

For facilities that are direct emitters of GHGs the data show that in 2011:

Power plants remain the largest stationary source of GHG emissions, with 2,221 million metric tons carbon dioxide equivalent (mmtCO₂e), roughly one-third of total US emissions. 2011 emissions from this source were approximately 4.6% below 2010 emissions, reflecting an ongoing increase in power generation from natural gas and renewable sources.

Petroleum and natural gas systems were the second largest sector, with emissions of 225 mmtCO₂e in 2011, the first year of reporting for this group. Refineries were the third-largest emitting source, with 182 mmtCO₂e, a half of a% increase over 2010.

EPA now has two years of GHG data for 29 source categories. Some industrial sectors, such as metals production and chemicals production, reported overall increases in emissions, while others, such as power plants, reported decreases. Overall emissions reported from these 29 sources were 3% lower in 2011 than in 2010. In the future the data collected through the program will provide the public with the opportunity to compare emissions and developing trends for all 41 industry types?by facility and sector.

This data is accessible through the Facility Level Information on Green House Gases Tool (FLIGHT)?a web-based data publication tool. EPA has also expanded accessibility of this data through EPA's online database EnviroFacts that

allows a user to search for information by zip code.

(Environmental Resource Center - 2/11/13)

NEW REVISIONS TO MERCURY AND AIR TOXICS STANDARDS, PROPOSED REVISIONS TO OIL AND GAS STORAGE TANK STANDARDS

EPA has issued updates to pollution limits for new power plants under the mercury and air toxics standards, based on new information and analysis that became available to the agency after the rule was finalized.

The updates are largely technical in nature and will have no impact on the sensible, achievable, and cost-effective standards already set for existing power plants. The public health benefits and costs of the rule remain unchanged. EPA estimates that the standards, which will protect the health of millions of families, especially children, will prevent as many as 11,000 premature deaths and 4,700 heart attacks every year. The standards will also help America's children grow up healthier—preventing 130,000 cases of childhood asthma symptoms and about 6,300 fewer cases of acute bronchitis among children each year.

The updated standards only apply to future power plants and do not change the types of pollution control technology that plants would install. The updates ensure that emissions limits are achievable and that pollution levels can be measured continuously.

EPA's mercury and air toxics standards are the first national standards to protect American families from power plant emissions of mercury and toxic air pollution like arsenic, acid gas, nickel, selenium, and cyanide. EPA considered dozens of public comments from a range of stakeholders, including industry and environmental groups, as part of the public process to update the new source standards.

Also, on March 28, 2013, EPA proposed updates to the agency's 2012 performance standards for storage tanks used in oil and natural gas production. The proposed changes reflect recent information showing that more higher-volume storage tanks will be coming on line than the agency originally estimated and would provide storage tank owners and operators additional time to comply with a requirement to reduce volatile organic compound emissions while equipment to reduce those emissions is being manufactured. EPA will take comment on the proposal for 30 days after it is published in the Federal Register and will hold a public hearing if requested.

(Environmental Resource Center - 4/1/13)

AS SUITS GROW, INDUSTRY, STATES BACK STATE COAL ASH DISPOSAL REGIMES

State and industry officials are defending the adequacy of state coal ash management programs, arguing that the growing number of citizen suits that have been filed over inadequate state regulations of the waste show there is a mechanism for addressing complaints and that Congress can preempt EPA from regulation.

"The argument that states aren't doing their job and that citizens don't have tools [to seek redress]

FEDERAL REGULATORY UPDATES (Continued)

is invalid,” an industry source says, pointing to the suits.

But, environmentalists are quick to respond that the suits show that state laws are too weak, thus bolstering the need for EPA to issue its long-pending coal ash dispute rule. “States are either too close to the industry and they don’t have the backbone, or they don’t have the resources or they don’t have the legal framework,” says a Montana environmentalist. “In this state it really comes down to all three.”

The debate comes as environmentalists are stepping up citizen suit complaints against coal-fired power plants in state and federal courts over inadequate regulation of coal ash disposal sites, most of them located in the Southeast.

One source says environmentalists and other litigants are increasingly filing the suits because they can no longer wait on EPA, which is not expected to complete its long-awaited rules governing coal ash disposal until 2014.

“It seems that not only environmental groups but the environmental bar have noticed the damage... and have been more aggressive in pursuing it,” says an environmental attorney. “It’s probable that it’s a trend that will continue since there doesn’t appear to be any relief” coming from EPA.

Coal ash or coal combustion residuals (CCRs) are the byproduct of combustion at coal-fired power plants, and contain heavy metals and other toxic substances. The ash is often mixed with water and disposed of on site in large retaining ponds, or stored dry at landfills, according to EPA’s website. Many of the wet sludge ponds are unlined, allowing the contaminants to seep into nearby ground and surface water, which environmentalists claim is leading to violations of state laws.

Last year, environmentalists filed administrative suits in Montana, Illinois and North Carolina, among other states, alleging violations of state law at CCR disposal sites.

Environmentalists said the complaints were intended to force changes to state ash disposal rules and highlight alleged, insufficient state regulation of ash in order to put pressure on EPA to issue a strict ash disposal rule.

EPA is working to determine whether to regulate coal ash as a “hazardous” waste subject to strict subtitle C rules under the Resource Conservation and Recovery Act (RCRA), as favored by environmentalists, or under subtitle D, as states and industry prefer, though the agency is indicating that it is not expecting to issue a rule until 2014.

EPA’s rule is a major concern to power sector officials, who fear it will add to their regulatory burdens.

To address their concern, many industry officials, along with states, are lobbying Congress to pass legislation that would generally bar EPA from regulating while largely giving state authority to do so under the existing subtitle D programs. But critics, including Rep. Henry Waxman (D-CA) and environmentalists, are strongly opposed to the bill, saying it does not set a safety standard.

The Congressional Research Service (CRS) has backed some of the critics’ claims, charging that the lack of a safety standard would mean that the bill would result in new litigation as courts struggle to interpret Congress’ intent.

With the debate largely stalled, environmentalists and citizens groups are again stepping up efforts to take states and power companies to court, seeking to force cleanup of leaking coal ash impoundments and other sources of contamination from the ash.

In late January, environmentalists filed 13 separate suits in Georgia state court against Georgia Power, Florida Light and Power and other operators of the coal-fired Robert W. Scherer Power Plant in Juliette, GA, arguing that the companies knew that coal ash was leaking from unlined impoundments on the site but failed to correct the problem or warn nearby residents and users of adjacent waterways of the potential dangers.

The suits seek damages to health and property for racketeering, battery, fraud and negligence, among other things,

(*Superfund Report* – March 4, 2013)

APPEALS COURT PRECEDENT LIMITS INSURERS’ SUBROGATION RIGHTS UNDER CERCLA

In a potentially precedential ruling, a divided federal appellate court has found that insurance companies cannot use the Superfund law’s cost recovery provision to recover pollution-related insurance payouts from third parties unless the insurer itself directly incurred environmental response costs.

The dissenting judge in the case says denying subrogation claims under the Comprehensive Environmental Response, Compensation & Liability Act’s (CERCLA) section 107 cost recovery provision “is detrimental” to CERCLA, arguing the ruling will raise insurance premiums and will undermine the law’s purpose to promote timely cleanups.

Robert Sanoff, an attorney at Foley Hoag, said in a blog posting that the ruling is “bad news” for both insurers, who he said rely on subrogation to lower the cost of environmental insurance, and policyholders. He said that he expects insurers to require policyholders to agree to participate more directly in asserting claims against other liable parties for the benefit of the insurer.

Meanwhile, a Superfund attorney says while the case appears to be the first controlling circuit-level law on subrogation rights under CERCLA, the attorney believes insurers should be able to “work around” the requirements it sets.

In its March 15 ruling, in *Chubb Custom Insurance Company v. Space Systems/Loral, Inc. et al.*, the U.S. Court of Appeals for the 9th Circuit ruled that an insurance company is limited in collecting reimbursements from third parties through Superfund section 112(c), the law’s subrogation provision, unless the insured has first made a direct claim to the third party or the Superfund for response costs. The ruling affirmed a lower court decision.

Subrogation is a derivative right under a

common law doctrine that generally allows an insurance company to substitute for the insured to seek to recover from third party tortfeasors who are responsible for the insured’s loss, according to the court.

In the case, Chubb paid out \$2.4 million on a policy to reimburse cleanup costs incurred by Taube-Koret Campus for Jewish Life, which developed an assisted living facility on land in Palo Alto, CA, contaminated by a predecessor company to defendant Space Systems/Loral, Inc.

Volatile organic compounds migrated onto the Taube-Koret property from a release stemming from the manufacturing of communications satellites and equipment and missile guidance systems. Taube-Koret, which acquired the contaminated property in 2002, was ordered by the California Regional Water Quality Control Board to clean up the site.

Chubb alleges Taube-Koret incurred \$2.4 million in response costs. Taube-Koret was then reimbursed by Chubb for the cleanup costs per the terms of an environmental insurance policy it had taken out. Chubb subsequently sued Space Systems/Loral and other defendants for cost recovery and subrogation.

The court found that Chubb could not bring a subrogation claim under section 112 because the insurer did not allege that Taube-Koret was a “claimant,” or that the insured had made a claim to another PRP or to the Superfund.

Chubb had not alleged that the insured made a demand on the defendants for its cleanup costs, rather it “only alleges that Taube-Koret has made an insurance claim to Chubb,” the court notes. “There is no indication that section 112(c)(2) contemplates this meaning of claimant.”

The court also denied Chubb’s ability to reclaim its costs through a section 107 cost recovery action under CERCLA. It ruled that insurers are not authorized under section 107(a) to assert subrogation claims to recoup insurance payments if they did not directly incur cleanup response costs.

The ruling on section 107 subrogation, on which the court says it knows of no other “controlling authority or persuasive circuit authority,” effectively restricts insurers’ ability to use section 107 to recover costs. While section 107(a) allows PRPs to bring suit against other PRPs for cost recovery, it does not allow for cost recoveries by parties who did not actually incur cleanup costs but simply are seeking reimbursements for costs they paid out to other parties who incurred response costs. The court looks to the strict liability imposed under section 107(a), which says PRPs are liable for cleanup costs incurred by the U.S. government or “any other necessary costs of response incurred by any other person consistent with the national contingency plan...”

While Taube-Koret, by owning the property, became statutorily liable for response costs, Chubb did not, it says.

“Chubb only alleges that by virtue of reimbursing Taube-Koret under its Policy, it became subrogated to Taube-Koret’s right to pursue a section 107(a) claim. But a subrogee—simply by stepping into the shoes of the insured via a reimbursement—cannot be liable for response costs,”

FEDERAL REGULATORY UPDATES (Continued)

the court says.

(*Superfund Report – April 1, 2013*)

NEW NPDES PERMIT FOR VESSELS

EPA recently issued a final vessel general permit regulating discharges from commercial vessels, including ballast water, to protect the nation's waters from ship-borne pollutants and reduce Invasive species in US waters.

The final vessel general permit covers commercial vessels greater than 79 feet in length, excluding military and recreational vessels, and will replace the 2008 vessel general permit due to expire on December 19, 2013.

This permit regulates 27 specific discharge categories, and will also provide improvements to the efficiency of the permit process, and clarify discharge requirements by the following:

- Reduce the risks of Introduction of Invasive species. The permit includes a more stringent numeric discharge standard limiting the release of non-indigenous invasive species in ballast water. The permit also contains additional environmental protection for the Great Lakes, which have suffered disproportionate impacts from invasive species, aligning federal standards with many Great Lakes states by requiring certain vessels to take additional precautions to reduce the risk of introducing new invasive species to US waters.

- Reduce administrative burden for vessel owners and operators. The permit will eliminate duplicative reporting requirements, expand electronic recordkeeping opportunities, and reduce self-inspection frequency for vessels that are out of service for extended periods.

The new discharge standards are supported by independent studies by EPA's science advisory board and the National Research Council, and are consistent with those Contained in the International Maritime Organization's 2004 Ballast Water Convention. EPA is issuing the permit in advance of the current permit's expiration to provide the regulated community time and flexibility to come into compliance with the new requirements.

EPA RELEASES COMPREHENSIVE INFORMATION ON CHEMICAL USE

EPA in February released the 2012 Chemical Data Reporting (CDR) information on more than 7,600 chemicals in commerce. The CDR database contains comprehensive use and exposure information on the most widely used chemicals in the United States.

Companies are now required to provide information on chemicals used in children's and other consumer products, along with reports on commercial applications and industrial uses of chemicals. For the first time ever, EPA also required companies to substantiate confidentiality claims in order to ensure that as much information as possible is made available to the public.

"The 2012 Chemical Data Reporting information will help EPA and others better assess chemicals, evaluate potential exposures and use, and expand efforts to encourage the use of safer chemicals," said former EPA Administrator Lisa P. Jackson. "The CDR data also highlight the clear

need for TSCA reform. Updating this critical law will ensure that EPA has access to the tools and resources it needs to quickly and effectively assess potentially harmful chemicals, and safeguard the health of families across the country."

The CDR rule, the source of this new data, was issued under the Toxic Substances Control Act (TSCA). The rule requires companies that manufacture or import chemicals to report manufacturing and import data every four years when site-specific production volume exceeds 25,000 lb. This report is for calendar year 2011. The EPA received reports on 7,674 chemicals, including 354 that were reported as used in children's products. 1,704 chemicals were reported as used in consumer products and 3,073 were used in commercial applications or products. The remaining chemicals reported were for industrial use only. The CDR information includes data on chemicals that are used in children's products such as toys, playground and sporting equipment, arts and crafts materials, and textiles and furniture.

Chemicals used in consumer products, particularly those intended for children, present potential for direct exposure to the public and are priorities for assessment by the agency. Although reporting on these chemicals is compulsory, currently there are no requirements under TSCA that existing chemicals be evaluated for safety.

Yet EPA has taken action and begun a process to ensure that chemicals used by the public on a daily basis are safe. The process identifies potential chemicals for near-term review and risk assessment under TSCA. In 2012, EPA released a work plan of 83 chemicals for further review as part of the agency's existing chemicals management program. From that list, seven chemicals were identified for risk assessment development in 2012 and 18 for assessment in 2013 and 2014. In January 2013, EPA released for public comment and peer review an initial set of draft risk assessments of five chemicals for particular uses found in common household products.

The 2012 CDR information released recently is available at <http://www.epa.gov/cdr>. Users can download or search the database. You can tailor the search results to view information on specific uses of chemicals, such as those used in products intended for use with children.

(*Environmental Resource Center – 2/18/13*)

EPA DELAY OF BID TO EASE RCRA WIPES RULE SPURS DOUBT ON POLICY'S FATE

EPA is delaying until at least October a long-pending final rule to ease requirements on handling industrial wipes contaminated with solvents, which sources say raises doubts over the fate of the policy given shrinking budgets for EPA work and competing industry changes that make regulatory relief less of a concern for users of wipes.

The agency sent the final rule to modify the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations for management of solvent-contaminated industrial wipes to the White House Office of management and

Budget (OMB) for review in April, and EPA had said the rule was on track to be finalized by June 2012.

But, the rule remains at OMB, even though regular pre-publication interagency review of the rules is meant to take 90 days – though it can take longer for controversial regulations. The most recent Unified Agenda of EPA's upcoming rule-making efforts, published December 21, now lists October 2013 as the projected date for finalizing the rule.

"I am befuddled why this is proving such a difficulty" for EPA to finalize, an attorney following the rulemaking says while acknowledging EPA's waste office may lack the budget to pursue the rule, and has other higher priorities that may prevent staff from focusing on the wipes rule.

An EPA spokeswoman told *Inside EPA* December 21 that "EPA is still determining the new timeline for issuing this final rule."

EPA began exploring the possibility of conditionally exempting disposable laundered wipes from some RCRA requirements in the 1980s and issued a proposed rule in November 2003 that would conditionally exclude laundered wipes from the definition of solid waste.

Based on public comments, the agency then revised its analysis of the risk to human health and the environment if solvent-contaminated wipes or laundry sludge are disposed of in a municipal solid-waste landfill, publishing a notice of data availability of the new analysis in 2009 that outlined two new proposals for regulating contaminated wipes and laundry sludge. One proposal would allow low-risk solvents to be disposed of in any municipal or non-hazardous landfill while the other approach would allow all solvent-contaminated wipes, except those with perchloroethylene, to be sent to RCRA subtitle D landfills, which are lined.

While a final rule would provide regulatory certainty to industry, the attorney says it is unclear whether most industry users of wipes care about the rule anymore.

Many users of industrial wipes have already switched from using solvents that RCRA rules specifically list as hazardous waste to ones that are only considered hazardous under certain conditions, reducing the need to handle the wipes as hazardous waste, the source says.

In particular, EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for the aerospace industry, which is one of the largest users of solvent wipes, changed industry practices, the source says. The aerospace NESHAP placed controls on emissions of volatile organic compounds (VOC), including cleaning solvents that contain VOCs.

The attorney, however, says that while industry practices have changed, there is the possibility that some industry wipes users might opt to switch back to more hazardous solvents if the wipes rule is finalized to ease RCRA requirements for used wipes, creating an unintended consequence.

Meanwhile, industry groups representing disposable wipe manufacturers and laundries treating reusable wipes continue to push for the rule's release while issuing competing studies

FEDERAL REGULATORY UPDATES

touting the environmental benefits of their wipes over the alternative.

(*Superfund Report – February 18, 2013*)

EPA WATER QUALITY RULES VACATED

The 8th Circuit Court of Appeals invalidated EPA Water Quality Rules, related to an Iowa League of Cities case. League members include municipalities that publically operated treatment works (POTWs). Letters were sent to Senator Charles Grassley, and procedures were not followed related to response to inquiries. Controversial technical issues continue to arise related to effluent limits and “mixing zones”, and the use of “blending”, by municipal sewer systems, and in particular, combined source systems.

REVISED HAZARD COMMUNICATION STANDARD DECEMBER 1, 2013 TRAINING REQUIREMENTS

Lawrence W. Bily

OSHA revised its Hazard Communications Standard (HCS) to align with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and published it in the Federal Register in March 2012 (77 FR 17574). Two significant changes contained in the revised standard are:

- Use of new labeling elements, and
- Standardized format for Safety Data Sheets (SDSs), formerly known as Material Safety Data

Sheets (MSDSs).

The new label elements and SDS requirements will improve worker understanding of the hazards associated with the chemicals in their workplace. To help companies comply with the revised standard, OSHA is phasing in the specific requirements over several years (December 1, 2013 to June 1, 2016).

The first compliance date of the revised HCS is December 1, 2013. By that time employers must have trained their workers on the new label elements and the SDS format. This training is needed early in the transition process since workers are already beginning to see the new labels and SDSs on chemicals in their workplace.

By December 1, 2013 employers must train their workers on the SDS format and new label elements. Label elements include:

- Product Identifier
- Signal Word
- Pictogram
- Hazard Statement
- Precautionary Statement
- Name, Address and Phone Number of the Chemical Manufacturer, Distributor or Importer

For future information related to GHS, please contact Lawrence Bily at 610-265-1510 Ext. 236 or lbily@rtenv.com

PM2.5 . . . WILL THE TIGHTENED STANDARD AFFECT YOUR FACILITY?

EPA, in a December 14th Final Rule, tightened

the annual PM2.5 standard for fine particulates, from 15 micrograms per cubic meter to 12 micrograms per cubic meter. EPA has “grandfathered” existing permittees, where permits have already been issued for emissions, or, for construction of new or modified facilities, on a case by case basis.

Although some environmentalists oppose the policy, EPA has indicated that it has always grandfathered pending construction permit applications, and EPA says that the Agency determines the need for transition policies under the Clean Air Act. The issue principally can cause the need for Prevention of Significant Deterioration permits, if it is believed that a proposed new or modified emissions source could cause significant deterioration of ambient air quality. The issue, in part, revolves on when an individual application is considered complete.

In short, existing and new facilities which have permit applications deemed complete should understand that there may be a future impact from the tightened fine particulate standard at the time of renewal, but there is likely no impact at the current time as a result of tightened fine particulate standard.

NEW!

EPA Vapor Guidance

go to <http://www.epa.gov/oswer/vapor/intrusion>

Provide Input Until 5/24/13

PA UPDATES

PRESQUE ISLE BAY REMOVED FROM GREAT LAKES AREA OF CONCERN LIST

EPA announced that Presque Isle Bay, on the Pennsylvania shore of Lake Erie, has been removed from the list of heavily contaminated Great Lakes sites targeted for cleanup by the US-Canada Great Lakes Water Quality Agreement. Environmental conditions in Presque Isle Bay have significantly improved due to actions taken by federal, state, and local government. Studies have shown that revitalized waterways, like Presque Isle Bay, can benefit the local economy and better protect people's health. Presque Isle Bay is now the second site in the nation to be taken off the list of Great Lakes Areas of Concern (AOCs).

In October 2011, the federal Great Lakes Interagency Task Force committed to accelerate cleanups of contaminated rivers and harbors to “delist” AOCs. Presque Isle Bay's delisting reduces the number of AOCs to 29 contaminated sites wholly in the US or shared with Canada.

“On my last day as EPA Administrator, I'm proud to announce that Presque Isle Bay is no

longer considered an Area of Concern. We still have a great deal of work to do in the Great Lakes, but this is a positive step that will help protect people's health and the environment in the community,” said EPA Administrator Lisa P. Jackson, who also serves as Chair of the Great Lakes Interagency Task Force. “President Obama has made cleaning up the Great Lakes a priority for his Administration, and delisting Presque Isle Bay is a big step toward fulfilling that commitment.”

The historic discharge of industrial and domestic wastewater contaminated Presque Isle Bay with excessive nutrients, organic compounds, toxic metals, and other pollutants. Improvements at Erie's wastewater treatment plant, along with the waterfront's conversion from heavy industrial to commercial use, reduced pollution, and helped restore the bay.

Since 2010, Great Lakes Restoration Initiative funding has been used to accelerate the final steps needed to delist Presque Isle Bay. President Obama launched the Great Lakes Restoration Initiative at the start of his first term.

PA UPDATES

- Pittsburgh River Aquaponics, pg. 3
- Presque Isle Cleanup Complete, pg. 9

“Presque Isle Bay being delisted is a testament to the many conservation, environmental and sportsman groups in Erie County who have made the health of Presque Isle Bay a community priority,” said Congressman Mike Kelly. “While this is certainly an achievement, we as a community must keep Presque Isle Bay a priority to avoid any environmental challenges in the future.”

Environment Canada, the Canadian Department of Foreign Affairs and International Trade, and the US-Canada International Joint Commission concurred with the decision to delist the Presque Isle Bay AOC.

The Pennsylvania Department of Environmental Protection will continue to monitor ecological conditions in Presque Isle Bay, with support from EPA.

(*Environmental Resource Center – 2/18/13*)

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RT ENERGY SERVICES UPDATES

FOSSIL FUELS – THEY ARE GREENING THE PLANET

This possibility was first suspected in 1985 by Charles Keeling, the scientist whose meticulous record of the content of the air atop Mauna Loa in Hawaii first alerted the world to the increasing concentration of carbon dioxide in the atmosphere. Mr. Keeling's famous curve showed not only a year-by-year increase in carbon dioxide levels by a season-by season oscillation in the concentration.

During summers in the Northern Hemisphere, the Earth breathes in carbon dioxide as green plants (most of which are north of the equator) absorb gas and turn it into carbohydrate. In the northern winter, the Earth breathes the gas out again, as the summer's leaves rot.

Mr. Keeling and colleagues noticed that the depth of the breathing had increased in Hawaii by 20% since the 1960s; The Earth was taking in more carbon dioxide each northern summer and giving out more each winter. Since the inhalation is done by green leaves, they reasoned, the amount of greenery on the planet must be growing larger. In the 1980s forest biologists started to report striking increases in the growth rates of trees and the density of forests: In Douglas firs in British Columbia, Scots pines in Finland, bristlecone pines in Colorado and even tropical rain forests.

Around the same time, a NASA scientist named Compton Tucker found that he could map global vegetation changes by calculating a "normalized Difference Vegetation Index" (NDVI) from the data produced by a satellite sensor. The data confirmed Mr. Keeling's suspicion: Greenery was on the increase.

Using the NDVI, one team this year reported that "over the last few decades of the 20th century, terrestrial ecosystems acted as net carbon sinks," i.e., they absorbed more carbon than they were emitting, and "net greening was reported in all biomes," though the effect had slowed down in recent years.

The latest and most detailed satellite data, which is yet to be published but was summarized in an online lecture last July by Ranga Myneni of Boston University, confirms that the greening of the Earth has now been going on for 30 years. Between 1982 and 2011, 20.5% of the world's vegetation area got greener.

The conclusion is that the human use of fossil fuels has been causing the greening of the planet in three separate ways: first by displacing firewood as a fuel; second, by warming the climate; and third, by raising carbon dioxide levels, which raise plant growth rates.

(By: John S. Dykes – Wall Street Journal – January 5-6, 2013)

EPA SCALES BACK SCOPE OF FRACKING STUDY, HIGHLIGHTS DATA LIMITATIONS

EPA has scaled back some aspects of its massive study on potential drinking water impacts associated with hydraulic fracturing, dropping plans to assess possible adverse effects of interac-

tions between fracking fluids and naturally occurring materials in subsurface shale play and to conduct toxicity tests of fracking chemicals.

The agency is also pointing to limitations on some of the data it had planned to assess as part of the study, including difficulty in pinpointing locations in the country where large scale water withdrawals and wastewater treatment processes could impact environmental justice communities.

However, while the agency has made several minor changes slightly narrowing the parameters of its research efforts, one industry source notes that other aspects, "the study continues to expand beyond issues that are fracturing."

For example, the source says that a sizable part of the planned analysis appears to be devoted to analyzing the risks from produced water results from all forms of oil and gas drilling and therefore is not unique to fracking. "A significant portion of this study seems to be directed toward assessing the management of produced water using the tenuous argument that fracturing allows the development of the resource," that source says.

The agency Dec. 21 released a report, "Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources: Progress Report."

EPA's Office of Research and Development and Office of Water jointly launched the study in 2011, spurred by a request in the agency's 2010 appropriations bill that the agency examine the possible adverse effects of fracking on drinking water. The study consists of retrospective and prospective case studies aimed at examining actual fracking operations for potential impacts, literature reviews, toxicity assessments and scenario evaluations for the water lifecycle of fracking.

Fracking critics hope the study, slated for completion in 2014, will conclude that the controversial process endangers drinking water, lending support to legislative efforts to strictly regulate the process. But industry and congressional Republicans have raised concerns about EPA's methodology for conducting the research, such as how the agency plans to ensure that technological advancements in the field of fracking are accurately reflected in the study.

In the 278-page report, EPA avoids drawing any conclusions about potential impacts to drinking water supplies from fracking. But the agency outlines several changes it made in its approach from its final November 2011 study plan.

(SUPERFUND REPORT – 1/7/2013)

2012 – BIGGEST JUMP IN OIL PRODUCTION SINCE TITUSVILLE WELL IN 1883

U.S. oil production grew more in 2012 than in any year in the history of the domestic industry, which began in 1859, and is set to surge even more in 2013. It is the biggest annual jump in production since Edwin Drake drilled the first commercial oil well in Titusville, PA., two years before the Civil War began.

Daily crude output averaged 6.4 million barrels a day last year, up a record 779,000 barrels/day from 2011 and hitting a 15-year high, according to the American Petroleum Institute. The effects of the natural gas boom in the Northeast have had

ENERGY SERVICES UPDATES

- New Frack Standards, pg. 1
- Fossil Fuels - Greening the Planet?, pg. 10
- 2012 Jump in Oil Production, pg. 10

pivotal economic impacts on the region and the country. It is estimated that with natural gas and oil the United States will be able to meet 100% of our liquid fuel needs by 2024.

The U.S. Energy Information Administration predicts 2013 will be an even bigger year, with average daily production expected to jump by 900,000 barrels/day. The surge comes thanks to a relatively recent combination of technologies – horizontal drilling and hydraulic fracturing or fracking, which involves pumping water, chemicals, and sand at high pressures to break apart underground rock formations.

Together, they have unlocked deposits of oil and gas trapped in formations previously thought to be unreachable.

"At a very basic level this surge is creating jobs and wealth that didn't exist before," said Michael Levi, a Senior Fellow for Energy and the Environment at the Council on Foreign Relations.

It has also provided the country with greater defense against overseas turmoil that can disrupt energy supplies.

"The events in Algeria this week, for example, show the importance of having rising production from within the U.S. and other countries," said Amy Myers Jaffe, the Executive Director of Energy and Sustainability at the University of California Davis.

The shale drilling boom was first directed at natural gas production, but when a glut of natural gas drove down prices for the fuel, exploration companies have redirected their efforts toward oil.

Exxon Mobil Corp. predicts in its annual energy outlook that North America will become a net exporter of all energy by 2025, through continued growth of crude from Canada's oil-sands region as well as growing exports of gasoline and diesel. (By Tom Fowler – Wall Street Journal – 1/19/13)

Southwestern Pennsylvania continues Pennsylvania's tradition as a regional energy production center, although Marcellus Shale gas has received much attention, "wet" wells, producing oil and gas are present and are operating in the areas of Pittsburgh and Washington, PA, where RT's regional office is located. To learn more about RT's Energy Services, call Justin Lauterbach at 724-288-4895 or by email at jlauterbach@rtenv.com or Lisa Mascara at 412-997-0521 or by email at lmascara@rtenv.com.

NJ UPDATES

NJ DEP UPDATES VAPOR REQUIREMENTS

In January, the New Jersey Department of Environmental Protection, issued updated Vapor Intrusion Guidance. A number of issues are addressed under the Guidance including:

- Revisions to certain numerical standards including a less restrictive standard for non-residential conditions, for perchloroethylene, a typical contaminant associated with dry cleaning operations.

- There is a new allowance for averaging of groundwater data for compliance.

- There is a new description of legal actions for access, and, in some cases, if access cannot be obtained, near slab samples can be collected, in lieu of subslab samples, in certain cases.

- A quality assurance project plan is now also required.

- There is a new requirement for 24-hour indoor air samples (8-hour samples can no longer be used).

- There are new requirements related to the evaluation of "background" conditions.

- There are changes to the "gasoline exclusion".

- There are changes in the list of parameters used for TO-17 Target Compound List.

For more information on the changes, information can be obtained on the NJDEP website.

NEW JERSEY SHORT-TERM TCE LIMITS ADD TO GROWING ARRAY OF APPROACHES

The New Jersey Department of Environmental Protection (NJDEP) has crafted a limit to protect against short-term exposures from the solvent trichloroethylene (TCE) that differs from methods used by EPA Regions II, IX and X, adding to an array of exposure limits for the common contaminant around the country in the absence of guidance from EPA headquarters.

All the recently developed short-term exposure limits for TCE are derived from EPA's September 2011 Integrated Risk Information System (IRIS) assessment for TCE, which set a reference concentration (RfC) – or the amount of the substance EPA anticipates can be inhaled daily over a lifetime without causing adverse health effects – of 2 micrograms per cubic meter (ug/m³) to protect against non-cancer risks, including cardiac birth defects, decreased thymus weight and toxic nephropathy.

The IRIS assessment incorporated a controversial study suggesting a risk of cardiac birth defects from short-term exposure to TCE. But regulators have struggled to translate the IRIS chronic risk level into a short-term exposure level, resulting in different exposure limits in Regions III, IX and X. Concerns over how to craft appropriate limits has led to an ongoing EPA assessment of how to protect against short-term risk, and also a review by a panel of mostly private-sector risk assessors.

EPA officials have said the agency would like to have a uniform strategy around the country, and that the agency considers resolving the issue a matter of urgency.

New Jersey's January 17 announcement that updates its vapor intrusion guidance to include

short-term levels for TCE as well as other compounds is significant, a former state regulator says, because the state is considered to be a leader in addressing vapor intrusion. Risk assessors in other states might follow New Jersey's lead or at least consider New Jersey's methods when crafting their own policies, the source says.

New Jersey has set a short-term exposure level of 4 ug/m³ for residential and 18 ug/m³ for non-residential structures. This is in contrast to Region IX's proposed limit of 15ug/m³, Region X's limit of 2ug/m³ at residences and 8.4 ug/m³ for industrial settings averaged over a 20-day exposure period, and Region III's approach where regulators have ordered evacuations from buildings where indoor air levels of TCE reached 27ug/m³.

New Jersey's new short-term exposure level for TCE is part of a broader update to the state's vapor intrusion screening levels, which expand the use of short-term exposure levels from 13 contaminants in the 2007 guidance to 48 in the new guidance, according to a January 30 New Jersey Department of Environmental Protection (NJDEP) presentation on the changes.

Vapor intrusion occurs when toxic chemicals rise from below-ground contamination into indoor air through dirt floors, cracked foundations or other pathways. Regulators use screening levels to determine whether contaminant concentrations in groundwater, soil gas or indoor air should be investigated further for vapor intrusion risk. Short-term exposure levels, meanwhile, indicate when immediate action should be taken to prevent health risks.

NJDEP issued the updates through guidance rather than a rule, a move that has drawn criticism from the Public Employees for Environmental Responsibility (PEER) because the public did not have an opportunity to review the changes before they took effect. PEER also charges NJDEP has provided not independently derived scientific basis for the changes, and that the agency weakened screening levels for the common contaminants tetrachloroethylene and methyl tertiary butyl ether.

To craft its short-term level, NJDEP started with EPA's recently updated screening levels for indoor air, then rounded up and doubled the federal numbers for residential and non-residential structures. EPA updated its screening levels for TCE in April 2012, setting a residential screening level of 2 ug/m³ and a non-residential screening level of 8.8 ug/m³. As a result, New Jersey's updated short-term limits for TCE are 4 ug/m³ for non-residential structures. NJDEP's prior TCE short-term levels for residences was 20 ug/m³. The state previously did not have a short-term level for non-residential structures.

(*Superfund Report – February 4, 2013*)

NJDEP UPDATES PCB REMEDIATION POLICIES

The New Jersey Department of Environmental Protection has recently updated its PCB Remediation Policies, in coordination, with the U.S. EPA. Key Highlights are:

NJ UPDATES

- Vapor Guidance Update, pg. 11
- TCE Limits, pg. 11

General

- The site Remediation Program has established residential and nonresidential direct contact Soil Remediation Standards (SRS) for polychlorinated biphenyls (PCBs) based upon a legislatively mandated 1 x 10⁻⁶ cancer end-point. The residential SRS (RSRS) is 0.2 ppm and the non-residential SRS (NRSRS) is 1 ppm.

- For the Impact to Ground Water pathway, the default Soil Screening Level of 0.2 ppm may be used as a site specific Impact to Ground Water standard.

- It is recommended that the Impact to Ground Water Introduction document at:

www.nj.gov/dep/srp/guidance/rs/igw_intro.htm be reviewed prior to conducting any sampling for this pathway.

- Under current Site Remediation Program policy, PCBs detected below 0.2 ppm would not require remediation. In a residential scenario, PCBs above 0.2 ppm and less than 1 ppm requires institutional (deed notice) and engineering (cap) controls. In a non-residential or restricted use scenario, PCBs found above 0.2 ppm requires a deed notice and when above 1 ppm, requires a deed notice and cap. Site remediation Program policy since 1993 allows for contaminants with appropriate institutional and engineering controls to be non-permanently remediated as long as the remedy is found to be protective of human health and environment. The Administrative Requirements for the Remediation of Contaminated Sites [N.J. A. C. 7:26C-7] requires the establishment of a soil remedial action permit along with a deed notice.

- The Department does not routinely allow capping for the remediation of the IGW pathway, except where technically impractical. However as discussed above, even when PCBs are present at the site exceeding the site specific IGW standard, there may be enough of a buffer between the deepest concentrations and the water table to preclude the contamination from reaching the water table. If this is demonstrated using the options detailed in the IGW guidance at www.nj.gov/dep/srp/guidance/rs/, no remediation will be necessary, providing the direct contact pathways have been addressed.

- The USEPA Toxic Substances Control Act (TSCA) provides federal PCB remediation policy that must be coordinated with Site Remediation Program policy during PCB remediation projects. This coordination often will allow for and in fact require permanent remediation of PCBs dependent on future use and concentrations detected. The TSCA regulations also known as the "Final PCB Rule" or the "mega Rule" dealing with the remediation of soil as "bulk remediation waste" are principally found in 40 CFR 761.61 (-C). TSCA does not regulate PCBs at concentrations less than 1 ppm.

- It is important to note the low and high occupancy self-implementing cleanup criteria used by

NJ UPDATES (Continued)

USEPA are differentiated by the anticipated future use exposure time frame, by an individual not wearing dermal and respiratory protection, for more or less than an average of 6.7 hours/week. Self-implementing PCB remediation requires a minimum 30-day advance written notification by the party conducting the remediation to the USEPA Regional Administrator and other involved regulatory agencies. The licensed site remediation professional (LSRP) submitting the notification may assume that the proposed remediation is acceptable if the Regional Administrator does not respond within 30 calendar days of receiving the notice. It is not recommended that the LSRP document the USEPA notification and any related correspondence in the remedial action work plan and remedial action report submitted to the Department.

EPA Criteria

-TSCA Self-Implementing Criteria In Defined High Occupancy Areas – PCBs may remain between 1 and less than or equal to 10 ppm with a cap. This would be applicable to residential, unrestricted use or other uses where occupancy will exceed an average of 6.7 hours/week.

-TSCA Self-Implementing Criteria In Defined Low Occupancy Areas – Where occupancy will not exceed an average of 6.7 hours/week, PCBs up to 25 ppm may remain without engineering or institutional controls. PCBs may remain at between 25 and 50 ppm when access is restricted by fencing and warning signs are provided. PCBs may remain at levels between 25 and 100 ppm when appropriately capped (note no fencing required). 40 CFR 761.61(a)7 defines a cap as being a minimum of 6" of asphalt or concrete (or similar material), or 10" of compacted soil. The TSCA cap requirements may be somewhat different than that required by the Site Remediation Program in terms of other geotechnical properties. A LSRP or responsible party proposing to cap a PCB contaminated site should state that their proposal is in compliance with 40 CFR 761.61(a)7 to cover any potential additional EPA geotechnical requirements.

-NJDEP Site Remediation Program policy does not recognize these occupancy and concentration based scenarios and requires a deed notice above .02 ppm and a cap when PCBs exceed 0.2 ppm or 1 ppm residential/non-residential scenarios, respectively. Where pot-excitation sampling is being conducted to assure attainment of NJDEP SRS/TSCA soil cleanup criteria, the guidance provided in Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil (www.nj.gov/dep/srp/guidance/srra/soil_inv_si_ri_ra.pdf) should be followed. Note that when EPA is directly involved in a PCB cleanup they may have additional investigatory and post-excitation PCB sampling requirements.

-TSCA Performance-Based Disposal – The performance-based disposal codified in 40 CFR 761.61(b) allows for remediation under certain conditions without USEPA notification or

approval. In such situations, PCB remediation must be completed to below 1 ppm and regardless of the initial concentrations found, all remediation waste must be disposed at a TSCA approved disposal facility.

-TSCA Risk-Based Disposal Approval – Taking into account a future low occupancy use scenario with appropriate deed notice and engineering controls, PCB concentrations up to 100 ppm may remain on site under both Site Remediation Program and TSCA guidelines. A LSRP or responsible party may elect to request a risk-based disposal approval under 40 CFR 761.61(c) from the USEPA Regional Administrator for any situation not covered by the self-implementing cleanup guidance. This requires submission of a request and a written response from the EPA Regional Administrator before any remedial actions may be taken. Such risk-based disposal proposals may include requests to waive the more restrictive high occupancy limitations or to leave PCB concentrations in excess of 100 ppm.

Concrete

-Other PCB Coordination Issues – Concrete – Another Site Remediation Program/TSCA PCB coordination issue that frequently arises is how to sample and remediate contaminated porous materials such as concrete. The Mega Rule acknowledges that surficial wipe sampling and decontamination of concrete is only applicable where a spill has occurred within a 72-hour time frame. Beyond that time frame, PCBs will have soaked into the concrete making decontamination unsuccessful and wipe sampling unreliable. The Mega Rule establishes cleanup levels for concrete in the same manner as for soil as a bulk remediation waste. As such concrete sample results can be compared to both the NJDEP SRS and TSCA bulk remediation waste regulations in 40 CFR 761.61(a)4.

-In normal site remediation situations where contaminated concrete is suspected, sampling must include core (depth to be site specifically determined) or chip samples to evaluate the horizontal and vertical extent of contamination in concrete. Remediation that achieves the RSRs of 0.2 ppm would warrant issuance of an unrestricted Response Action Outcome (RAO). A limited restricted or unrestricted RAO may be applicable based upon the levels of PCBs present and the need for institutional and engineering controls.

-Where someone wishes to continue using concrete contaminated by spills of liquid PCBs, the concrete may be cleaned, covered and labeled in accordance with 40 CFR 761-60(p). Such cover may include a solid barrier or a double layer of solvent resistant coatings (ex. epoxy paint) applied in contrasting colors to provide a visual indication of wear. When the contaminated concrete is eventually taken out of service as in demolition, disposal must be in accordance with the bulk remediation waste criteria. Subsequent to the Mega Rule, guidance has been provided by EPA that has eased the restrictions that were in place for the sale of structures with contaminated concrete.

Note that disposal and/or reuse of PCB conta-

minated concrete must be done in conjunction with the current Guidance for Characterization of Concrete and Clean Material Certification for Recycling (updated 1/2010) available at www.nj.gov/dep/dshw/resource/techman.htm#concrete. The EPA PCB Q&A Manual (revised 2009) is a good source for answers related to PCB site remediation and disposal questions. This document can be found at:

www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/gacombined.pdf.

NJDEP PERMIT WAIVERS – COURT SAYS O.K.

A New Jersey appeals court ruled in mid-March that the state Department of Environmental Protection was within its rights last year to adopt a new rule that lets officials waive many of their own rules upon request.

The ruling is a victory for Gov. Chris Christie's administration, which was challenged by several environmental groups on the waiver rule.

Environmentalists plan to appeal to the state Supreme Court.

Judge Anthony Parrillo, writing for the unanimous three-judge appellate panel, said state agencies have the power to adopt regulations.

"Simply stated, the power to promulgate a regulation implies the incidental authority to suspend or waive its application," he wrote, so long as doing so is not breaking laws or in defiance of the agency's mission.

Christie's administration characterizes the rule as a "common-sense" way to reduce bureaucracy when environmental regulations are onerous or conflict with one another.

But, among environmentalists, it's seen as a way that the administration could ignore environmental protections to help businesses, breaking rules that were adopted for good reason.

"It's the worst environmental rule ever," said Jeff Tittel, the director of the New Jersey chapter of the Sierra Club, on of 28 organizations that sued over it.

The New Jersey DEP says the regulation has not led to the trampling of environmental considerations.

"The sky did not fall," DEP spokesman Larry Hajna said Thursday. "The program has been working out very well. The numbers show that this is a very rigorous process and the public recognizes this."

(By Geoff Mulvihill, Associated Press, S.J. Times – 3/21/13)

MAY 2014 – THE DATE BY WHICH ALL NJ REMEDIAL INVESTIGATIONS MUST BE COMPLETE

May 2014 is the date by which delineation must be completed for all areas of concern at New Jersey's legacy sites with discharges, under the Site Remediation Reform Act. Although May 2014 may seem quite some time away, there remain a large number of sites, with various areas of concern, with expensive and time consuming soil and groundwater delineation work yet to be completed.

A key issue with respect to delineation is that

NJ UPDATES (Continued)

the rules regarding delineation have changed, subject to the discretion and judgment of Licensed Site Remediation Professionals (LSRPs). There are many sites where delineation was completed to less stringent standards in the past, than are in effect now. This is particularly important where there is groundwater impact, and new delineation work needs to be completed to determine the degree to which a “source area” needing remediation exists.

The NJDEP adopted new Remediation Standards in June 2008. All sites which were previously remediated to the prior soil cleanup criteria are required to be reviewed to confirm that the remediation meets the new standards. If the previous remediation does not meet the new NJDEP standards, an order of magnitude study should be conducted to determine if additional remediation is necessary and/or required.

Now is the time for responsible parties to consult with LSRPs, if there are a significant number of unresolved areas of concern at sites in New Jersey, where issues have been longstanding. For more information, call Gary Brown at 610-265-1510 or Glenn Graham at 856-467-2276.

UPDATED NJDEP GUIDANCE SYNTHETIC PRECIPITATION LEACHING PROCEDURE

NJDEP has updated its Technical Guidance describing the use of the Synthetic Precipitation Leaching Procedure (SPLP) to determine site-specific impact to groundwater remediation standards has been revised. The updated document, “Guidance for the use of Synthetic Precipitation Leaching Procedure to Develop New Jersey Site-Specific Impact to Ground Water Remediation Standards” (version 2.0, April 2013) now allows the use of this procedure with volatile organic chemicals (VOCs). For these chemicals, modified sampling and extraction procedures should be used. Both the guidance document and updated NJDEP SPLP spreadsheet (version 3.0, April 2013) may be downloaded from the remediation Standards website:

www.nj.gov/dep/srp/guidance/rs/.

Key highlights are:

-VOCs are now allowed to use SPLP analysis, until now only metals/inorganics were subject to SPLP.

-Soils must be collected using the Encore Sampler, Methanol or other preservatives cannot be used when analyzing VOCs.

-SPLP option may be used at any time during remediation process provided that sufficient site data and information are available to determine a standard.

-Metals/Inorganics sampling remains the same as in previous guidance. VOCs for SPLP require: a 5 g. or 25 g. Encore for total contaminant analysis, a 25 g. sample for the SPLP test, and a sample for moisture determination (not Encore).

oA minimum of 3 sets of these samples are collected for each AOC, based on size of the area. -Per SPLP Guidance, leachate results are then compared to the table of Default Leachate Criteria, or if more site information is known, a site specific leachate criteria may be developed.

For more information, contact Chris Ward by phone at 856-467-2276 x 113 or by email at cward@rtenv.com.

RT NJ PROJECTS

- Brownfields Redevelopment - Bellmawr, Gloucester City and Phillipsburg
- Tank Remediation - Atlantic City, Vineland, Bridgeton, Jersey City

TECHNOLOGY UPDATES

U.N. REPORT: GREENHOUSE GAS EMISSIONS GAP WIDENING

Greenhouse Gas (GHG) emissions could rise to 58 gigatonnes (Gt) by 2020—far above the level that many scientists say is needed to keep the global temperature rise they predict to less than 2 Deg. C this century. A new study, The Emissions Gap Report 2012, says that if the world stays on a business-as-usual trajectory, more drastic and expensive cuts will be needed after 2020. The report released on November 21, was coordinated by the United Nations environment Programme (UNEP and the European Climate Foundation.

Previous scenario-based assessments have concluded that ambitious early action would keep the costs of meeting the two-degree target as low as possible. In such scenarios, emissions are projected to reach about 44 Gt or less in 2020 on average. However, emissions of warming gases like carbon dioxide are actually increasing each year worldwide. Total GHG emissions have risen from around 40 Gt in 2000 to an estimated 50.1 Gt in 2010. Delaying action also implies a greater risk of temperature rise exceeding two degrees, beyond which irreversible damage to the environment could occur, according to the report’s authors.

The report noted that bridging the emissions gap remains possible and efforts to do so should include increased energy efficiency in buildings, improved vehicle emissions standards, and continued growth of renewable energy.

(Environmental Resource Center – 12/3/12)

AMERICAN CHEMICAL SOCIETY LAUNCHES MAJOR NEW RESOURCE ON CLIMATE SCIENCE

The American Chemical Society (ACS), the world’s largest scientific society, recently launched a new web-based resource to enhance understanding and communication of the science underpinning global climate change. Intended for ACS’ more than 164,000 members and others, the American Chemical Society Climate Science Toolkit is available at:

www.acs.org/climatescience.

The project, more than a year in development, was one of the major initiatives that Bassam Z. Shakhshiri, Ph.D., ACS president, put forth for his year in office. Shakhshiri, the William T. Evjue Distinguished Chair for the Wisconsin Idea University of Wisconsin-Madison described the toolkit as a unique resource, with a sharp focus on the scientific concepts that determine Earth’s climate.

“The ACS Climate Science Toolkit fills a need for education, and equips scientists with the information and other resources necessary to develop a robust intellectual structure to communicate on this key topic,” said Shakhshiri. “Climate change affects everyone and everything on Earth, and ranks as one of the greatest global challenges of the early 21st century.”

Shakhshiri explained that the ACS is among the major scientific organizations with position statements acknowledging the reality of climate change and recommending action. The ACS policy statement mentions that people need a basic understanding of climate science in order to

TECHNOLOGY UPDATES

- Black Carbon and Climate Change, pg. 14
- Turning Down City Lights, pg. 15
- Traffic and Asthma, pg. 15

make informed personal decisions. And it describes climate change education for the public as “essential.” Not explicit in the statement, however, is the responsibility of individual ACS members to take active roles in this education process as both scientists and citizens.

“Scientist-citizens must use their expertise and credibility as scientists—as the ACS Mission Statement expresses so eloquently—‘...for the benefit of Earth and its people,’” Shakhshiri added. “Recruiting individual scientists to take on this responsibility requires encouragement and exhortation. It also requires providing convenient access to reliable tools for doing so.”

The ACS Climate Science Toolkit discusses greenhouse gases (GHSs), how the Earth’s heating mechanism works, how the vibrational energy from molecules changes into translational kinetic energy and much more. The toolkit also provides a package of “Climate Science Narratives” that can be adapted and personalized when scientists have the opportunity to speak about climate science to other audiences. Those may include students, schoolteachers, college and university faculty, industrial scientists and business leaders, civic and religious groups, professional science and educational organizations, and elected public officials at all levels and in all branches of government.

TECHNOLOGY UPDATES *(Continued)*

Work on the toolkit began in 2011, when Shakhshiri formed the ACS Presidential Working Group on Climate Science, a panel of distinguished scientists and science communicators chaired by physical chemist and science educator Jerry A. Bell, Ph.D. The panel worked on two tasks. One was to develop a toolkit that ACS members and others could use for self-education on climate science, to understand the fundamental chemical and physical processes that determine Earth's climate. The second was an ongoing task of developing strategies for using the toolkit in communicating about climate change to other audiences.

(Environmental Resource Center - 12/10/12)

NEW REGULATIONS COVER THE TRANSPORT AND DELIVERY OF LFG

A new provisional standard, NFPA 56 (PS), Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems, issued by the National Fire Protection Association (NFPA), applies to new and existing flammable gas piping found in electrical generating plants and in industrial, institutional, and commercial applications. The new standard covers transport and delivery of landfill gas to an end use, which had previously been handled similarly to the collection of that gas in the landfill.

The standard covers piping systems from the point of delivery to the gas-consuming equipment isolation valve. For facilities such as landfills, which produce flammable gas for consumption in electric generating or gas-processing plants, the point of delivery is defined as the discharge isolation valve for the gas producing equipment, which in many instances is the LFG extraction system blower.

NFPA 56 (PS) does not apply to LFG collection and control systems (GCCS), which includes all the wells, equipment, and piping installed in front of the flare station. That piping is a part of the gas-gathering system that leads to a flare designed to mix air and gas and combust it in a controlled manner. This new provisional standard is directed to piping that leads to an onsite or third-party user that is not employing a simple flaring system, for example, engines, turbines, boilers, fuel processing, or pipeline injection.

Highlights of the requirements in NFPA 56(PS) include the following:

- It prohibits use of flammable gas for internal cleaning of piping systems.
- It covers activities including cleaning new or repaired piping systems, placing piping systems into service (purging), and removing piping systems from service (purging).
- It requires development of written procedures and a safety validation of procedures by competent persons.
- It provides example of purge procedure based on requirements in the standard.

Look at this video discussion for more information:

www.youtube.com/watch?v=EEGgcodZZSw&feature=player_detailpage, for background sur-

rounding the development of the standard.

(By Tom Bilgri, P.D. and Steve Whittmann – MSW Management – Jan/Feb 2013)

VANCOUVER FIRST TO USE RECYCLABLES FOR ASPHALT ROADS

Vancouver, Canada motorists will soon be driving their cars over recycled plastics. City officials say the plastic materials will be used in a cutting-edge, wax-like asphalt mix that will comprise approximately 1% of the total asphalt batch for Vancouver roads in British Columbia.

The custom mix helps reduce viscosity when laying the asphalt, city officials say. Although it's a more expensive process, the special mix uses 20% less fuel than the traditional hot mix method, and is expected to produce savings over time. The new special mix has more temperature versatility too. It can be applied at temperatures 40 degrees C cooler than traditional hot mix.

Vancouver is testing out the mix in several parts of the city. Currently, the recycled plastic mix is sourced from GreenMantra in Toronto, but the city hopes to produce it locally in the future.

(AWMA, Environmental Manager – January 2013)

BLACK CARBON IS MUCH LARGER CAUSE OF CLIMATE CHANGE THAN PREVIOUSLY ASSESSED

Black carbon is the second largest man-made contributor to global warming and its influence on climate has been greatly underestimated, according to the first quantitative and comprehensive analysis of this pollutant's climate impact.

The direct influence of black carbon, or soot, on warming the climate could be about twice previous estimates, according to an in-depth study published recently in the Journal of Geophysical Research-Atmospheres, a publication of the American Geophysical Union. Accounting for all of the ways black carbon can affect climate, it is believed to have a warming effect of about 1.1 watts per square meter (W/m²), approximately two-thirds of the effect of the largest man made contributor to global warming – carbon dioxide.

"This study confirms and goes beyond other research that suggested black carbon has a strong warming effect on climate, just ahead of methane," said co-lead author David Fahey of the US National Oceanic and Atmospheric Administration (NOAA). The study, a four-year, 232-page effort, led by the International Global Atmospheric Chemistry (IGAC) Project, is likely to guide research efforts, climate modeling, and policy for years to come, the authors and other scientists familiar with the paper said.

The report's best estimate of direct climate influence by black carbon is about a factor of two higher than most previous work. This includes the estimates in the 2007 Intergovernmental Panel on Climate Change (IPCC) Assessment, which were based on the best available evidence and analysis at the time.

Scientists have spent the years since the last

IPCC assessment improving estimates, but the new assessment notes that emissions in some regions are probably higher than estimated. This is consistent with other research that also hinted at significant under-estimates in some regions' black carbon emissions.

The results indicate that there may be a greater potential to curb warming by reducing black carbon emissions than previously thought.

"There are exciting opportunities to cool climate by reducing soot emissions but it is not straightforward," said co-author Professor Pieter Forster from the University of Leeds's School of Earth and Environment in the United Kingdom. "Reducing emissions from diesel engines and domestic wood and coal fires is a no-brainer, as there are tandem health and climate benefits. If we did everything we could to reduce these emissions we could buy ourselves up to half a degree (Celsius) less warming – or a couple of decades of respite."

However, the international team urges caution because the role of black carbon in climate change is complex. "Black carbon influences climate in many ways, both directly and indirectly, and all of these effects must be considered jointly," says co-lead author Sarah Doherty of the University of Washington in Seattle, an expert in snow measurements.

The dark particles absorb incoming and scattered heat from the sun (Called solar radiation), they can promote the formation of clouds that can have either cooling or warming impact, and they can fall on the surface of snow and ice, promoting warming and increasing melting. In addition, many sources of black carbon also emit other particles that provide a cooling effect, counteracting black carbon.

The research team quantified the complexities of black carbon and the impacts co-emitted pollutants for different sources, taking into account uncertainties in measurements and calculations. The study suggests mitigation of black carbon emissions for climate benefits must consider all emissions from each source and their complex influences on climate.

Based on the scientists' analyses of these different sources, black carbon emission reductions targeting diesel engines and some types of wood and coal burning in small household burners would have an immediate cooling impact.

Black carbon is a significant cause of the rapid warming in the Northern Hemisphere at mid to high latitudes, including the northern United States, Canada, northern Europe and northern Asia, according to the report.

(Environmental Resource Center – 1/21/13)

WHY SOME NYC BUILDINGS ARE MORE EFFICIENT THAN LEED-CERTIFIED ONES

Some of New York City's oldest buildings are more energy efficient than LEED-certified buildings.

Although the recently built 7 World Trade Center trumpets its LEED-Gold rating to lure renters, it isn't as efficient as the Chrysler

TECHNOLOGY UPDATES (Continued)

Building, which was constructed in the 1930s.

It's also because of energy consumption by tenants. Tenants at the World Trade Center tend to be more data-crunching oriented with firms like Moody's, whereas nonprofits and other firms that require basic computing tend to occupy highly efficient buildings.

Not all older buildings score well, of course. The MetLife Building, built in 1963, scored 39, and the Seagram Building built in 1958, scored 3. Those numbers will change for Seagram, which will soon get extensive energy upgrades.

"Some scores will not be flattering, but identifying buildings with the most opportunity to improve is a big part of driving energy savings," Andrew Burre, a performance expert at the Institute for Market Transformation, told the New York Times. "It does put energy on the radar of real estate consumers."

(By SustainableBusiness.com 1/3/13)

A BRIGHT IDEA: TURNING DOWN CITY LIGHTS

The City of Light dimmed? It's true. Thanks to a new law, not only Paris but all of France will see its lighting level reduced, beginning this July. Window lighting in commercial buildings and the lights on building facades will be turned off after 1 a.m., and interior lighting in office buildings will be off an hour after the last employee departs.

The new law promises to reduce carbon emissions and save energy – the annual equivalent of 750,000 households' worth. Most significant is its potential to turn the tide against light pollution by changing attitudes about our unnecessary overuse of light at night.

In almost every U.S. city, suburb and town, the streets, parking lots, gas stations and commercial and public buildings are lit through the night. Over recent decades, the growth of this pollution has been relentless, yet slow enough that most of us haven't noticed. Parking lots and gas stations, for example, are now often 10 times brighter than they were just 20 years ago, and light pollution continues to grow at 6 percent every year.

The cost of all this light, monetary and otherwise, is high. The connections to sleep disorders, cancer, diabetes and other disease are serious enough that the American Medical Association has declared its support for light-pollution control efforts. Every ecosystem on Earth is both nocturnal as well as diurnal, and light destroys habitat just as easily as any bulldozer can. And when eight out of 10 children born in the United States today will never see the Milky Way, we have even lost the stars.

The usual justification for these cists is that we need all this light for safety and security. This simply isn't true.

No one doubts that artificial light can reduce the risks of being out at night, and no one is saying that we ought to exist in the dark. But increasingly, police, doctors, astronomers, economists, business leaders, communities and now the French government agree that we should reduce the light we use, and that too much brightness at night actually reduces our safety and security.

Bright lights may make us feel safer, however they don't actually make us safer.

The research bears this out. In 2008, PG&E, the San Francisco-based energy company, reviewed the research and found "either that there is no link between lighting and crime, or that any link is too subtle or complex to have been evident in the data."

Others are even more to the point. Australian astronomer Barry Clark went so far as to conclude that "advocating lighting for crime prevention is like advocating use of a flammable liquid to try to put out a fire."

Numerous villages, towns and cities in Europe and the United States have initiated programs to shut off streetlights for at least part of the night. Tuscon, AZ., has a strict lighting ordinance that requires a level of light that most Americans would consider dim.

The new French law is to be applauded, not only for what it may do to save energy and reduce carbon emissions, but also for what it may help us to understand: True safety and security at night comes from making smart decisions, being aware of our surroundings and using lighting wisely.

If the City of Light can do it, why shouldn't we?

Paul Bogard, who teaches creative nonfiction at James Madison University in Virginia, is the author of "The End of Night: Searching for Natural Darkness in an Age of Artificial Light," to be published this July. He wrote this article for Bloomberg News.

(Star Ledger – 3/3/13)

TRAFFIC POLLUTION CAUSES ASTHMA IN CHILDREN

Researchers in Europe have confirmed scientifically what parents in traffic-congested Southern California have known anecdotally for years: Poor air quality associated with busy roads can cause asthma in children. The study, which examined children's health in 10 cities, concluded that 14% of chronic childhood asthma cases could be attributed to near-road traffic pollution.

It is the first time that medical researchers have made such a direct link – previous studies stopped at saying that traffic pollution is known to trigger asthma, not cause it. The findings are published online in the European Respiratory Journal. The European Commission has declared 2013 the 'Year of Air.'

(Los Angeles Times / IAQA Digest - 3/28/13)

NEW WEB RESOURCES

NEW CLU-IN Focus Area on High-Resolution Site Characterization (HRSC). HRSC is a new EPA focus area that reflects the state-of-the-science for environmental site characterization. HRSC strategies and technologies use scale-appropriate measurement and data density to delineate contaminant distributions in environmental media with greater certainty, supporting faster and more effective remedy selection, design and implementation. This website provides a description of the general concepts and benefits of HRSC and offers resources including case studies

for sites where HRSC has been applied, information on practitioner forums, information on available training, and instructions on accessing available support for understanding an applying HRSC. View and use at <http://clu-in.org/hrsc>.

NEW CLU-IN Focus Area on Bioremediation. The new bioremediation focus area provides a general introduction to aerobic, anaerobic, and cometabolic biodegradation mechanisms, as well as guidance, and site specific information. Bot in situ and ex situ technologies are addressed. View and use at <http://clu-in.org/bioremediation>.

MASSACHUSETTS CONTINGENCY PLAN (MCP) AMENDMENTS ARE PLANNED

The Department of Environmental Protection, acting in accordance with M.G.L.c.21E has proposed amendments to 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP).

The proposed MCP amendments, part of MassDEP's Regulatory Reform Initiative, are intended to enhance program efficiency while maintaining a high standard of environmental protection. Specifically, the proposals:

- Climate Tier I Permits and streamline the disposal site classification system;
- Streamline Notice of Activity & Use Limitation (NAUL) requirements (NAULs are deed notices put in place to limit future use of properties where residual contamination remains after cleanup);
- Improve site closure-related requirements by clarifying source control provisions, facilitating closure at sites with active exposure pathway elimination measures, and providing transparency in documenting any conditions relevant to maintaining closure or site redevelopment;
- Revise definitions, assessment and closure requirements related to Nonaqueous Phase Liquid (NAPL) to reflect updated science on the behavior of NAPL in the subsurface environment; and
- Revise numeric cleanup standards and notification thresholds by incorporating the most recent chemical toxicity information for a number of chemicals.

Copies of the proposed regulations and background information are available on MassDEP's web site at: <http://www.mass.gov/dep/service/regulations/newregs.htm>

LEADING DEVELOPERS FINED FOR STORM WATER VIOLATIONS IN VIRGINIA AND MARYLAND

Two leading home builders have agree to pay civil penalties of \$130,000 and \$56,000 respectively in separate settlements with EPA resolving alleged Clean Water violations at construction sites in Maryland and Virginia.

EPA alleged that the companies failed to take actions to prevent discharging sediment to nearby surface water as required by law. Installing proper control measures is important since sediment-laden storm water from construction sites can poll

TECHNOLOGY UPDATES (Continued)

lute local waterways.

EPA, along with state and country representatives, inspected Shipley Farm and Palisades at Oak Creek construction sites in Prince George's County, Maryland, in August 2011. These inspections revealed that the builder failed to install and/or maintain required best management practices to prevent the discharge of sediment to surface waters at both sites.

The settlement requires the builder to take actions to bring these two sites into compliance with permit requirements and develop a plan for preventing the recurrence of violations at its construction sites in Maryland, Delaware, Virginia, West Virginia and the District of Columbia with 45 days of the effect date of the settlement.

In a separate complaint, EPA alleged that another builder, failed to implement and maintain control measures to minimize pollutants such as sediments flowing into the Accotink and Piscataway Creeks in Virginia, and Maryland respectively. The creeks are tributaries of the Potomac River, as well as the Chesapeake Bay. Virginia and Maryland have identified the Accotink and the Piscataway waterways as impaired for aquatic life.

EPA, along with state and county representatives inspected the construction sites in August 2011 as a follow-up to a 2008 Clean Water Act settlement between EPA and the builder resolving the company's alleged delays or failures to obtain stormwater permits for numerous construction sites across the country. EPA issued a Clean Water Act Administrative Order to the builder on September 27, 2012, which required the company to correct the violations discovered by EPA during its inspection of the sites. Neither builder admitted or denied liability for the alleged violations.

Construction projects have a high potential for environmental harm because they disturb large areas of land and significantly increase the potential for erosion. Without onsite pollution controls, sediment-laden runoff from construction sites can flow directly to waterways and degrade water quality. In addition, stormwater can pick up other pollutants, including concrete, paint, used oil, pesticides, solvents, and other debris. Polluted runoff can harm or kill fish and wildlife and affect drinking water quality.

(Environmental Resource Center – 3/11/13)

MOLD PLAGUES HOMES FLOODED DURING HURRICANE SANDY; SPORES CAUSE BREATHING AND OTHER HEALTH-RELATED PROBLEMS

May homes cleaned by volunteers and contractors in New York City's Boroughs of Queens and Brooklyn still have traces of mold, especially in areas still wet underneath or behind tiles. Correcting the problem can be costly, leading many to forgo the fix. The Mayor's Fund to Advance New York City said it will spending \$15 million to eradicate mold in about 2,000 Sandy-affected homes.

In a gutted basement on Beach 59th St. in the Rockaways, ominous, black splotches cover gyp-

sum board, plaster walls and wooden support beams. Breathing itself is difficult.

Upstairs tenant Alberto Lespier, 56, says the ghastly rooms were supposedly "cleaned" by untrained workers who left behind toxic conditions he fears are ruining his health.

In homes like this across Brooklyn and Queens, it's increasingly clear that mold left behind by Hurricane Sandy continues to lurk behind walls, under floors and behind ceiling tiles, serving as a breeding ground for potentially deadly spores.

Sometimes, the "cleanups" are done by well-meaning volunteers, other times by contractors out to make a quick buck. In any event, hundreds of homeowners—particularly those who can't afford to get the job done right—are now vulnerable, experts and officials say.

"This is a very widespread problem we're talking about," said William Sothorn, chief investigator of Microecologies Inc. "In so many homes, the gutting has been done but little else has been done. We know a lot of people are closing up (walls) without treating the visible mold. It's problematic.

Recently, the Daily News accompanied Southern and colleague Chris Mikrut to check out the Beach 59th St. home and several other mold-tainted homes—and quickly discovered the problem is not always obvious.

Moisture—mold's best friend—can remain within wood for months. Mikrut placed a moisture-reading meter against what appeared to be a dry beam at Beach 59th and declared, "It's still wet."

In the next room, Sothorn pointed to a plaster wall the untrained workers had left behind. A wisp of mold had already worked its way from floor to ceiling. "It's growing on the paint," he said.

Over on the Beach 60th St. owner Nicole Harper, 46, faced a similar blight. After she emptied her flooded basement, a group of volunteers helped her tear out soaked wallboard, and a local handyman helped scrub surfaces of the studs with Clorox and water.

But, when Southern and Mikrut checked out the porous studs on the 87-year-old house, they found mold everywhere.

"Even when it doesn't look that bad you could still have mold," Sothorn said, holding up a mirror to reveal black spores growing behind Sheetrock that workers left behind because it was above the water line.

Harper realizes that she has spent much of her savings to get to this point, and can't afford to fix what she knows is a lingering problem. Her 4-year-old daughter, Darcy. Barely tall enough to reach the brown streak that still marks the water line in the basement, has asthma.

"Some people are choosing not to check out their Sheetrock even," she said. "They say until I see it myself (on the walls) I'm not going to do it. Right now, it's hidden behind the walls and it's really a bad situation."

Sothorn and others have come across contractors who don't know how to properly kill mold and are offering "remediation" that doesn't

remediate much of anything.

This was after the city's Rapid Repair crew tore out wallboard to the water line and volunteers from a church group sprayed the place with bleach and water.

"They said the spray would not be adequate to kill it but it would put a hold on it," said the 71-year-old homeowner, Stephen Cooper.

Dave Newman of the N.Y. Committee for Occupational Safety & Health said, "You've got all kinds of vendors who don't necessarily have any expertise in mold remediation. They're hiring people off the streetcorners.

One contractor, George Guglielimi, said he had ripped out the walls where mold was growing at a Beach 131st St. home and sprayed the wooden studs underneath with anti-mold chemicals. He admitted he had never done mold abatement before Hurricane Sandy and learned now to do it "from my son who went on the internet."

The owner's daughter, however, said the workers failed.

"The stuff is in the closets. It's still there. He's supposed to get it out before the walls go up," said Rochelle Burg, who says the contractor has already charged the family \$35,000 and wants another \$35,000 to finish the work.

Mold spores can aggravate existing respiratory problems, particularly asthma—and there was an alarming increase in asthma cases after Hurricane Katrina in New Orleans.

"You're going to see that here," said Mike Shain of NY Indoor Air Quality Solutions of Long Island. "Cold helps postpone growth of mold. Humidity is low in wintertime, which gives people a bit of reprieve. Come May, June or July, if they didn't resolve their issues, it's going to flourish."

A big problem is money. It costs a lot to truly eradicate mold from a contaminated home, and the Federal Emergency management Agency won't reimburse homeowners or renters for mold abatement.

(By Greg B. Smith/ New York Daily News - February 10, 2013)

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL UPDATES GUIDANCE FOR NOTICE REQUIREMENTS AND SITE INVESTIGATION AND RESTORATION

The Delaware Department of Natural Resources and Environmental Control in January 2013, updated requirements related to reporting releases and potential releases, particularly with respect to sites being redeveloped, or which are planned to be redeveloped. Penalties are now \$10,000 per day, for each day of non-compliance, where known releases are not reported. There are specific concentration limits, and reporting levels in the Guidance.

Once releases are reported, there is a step-by-step process, after notification, which involves completing Phase 1 and Phase 2 Environmental Site Assessments, determining whether action under the Hazardous Sites Cleanup Act is needed,

TECHNOLOGY UPDATES (Continued)

and/or whether areas of concern at the site should be addressed under the Voluntary Cleanup Program, or the Brownfields Development Program. The Guidance also explains how to do site investigation and restoration. The Guidance was issued in January of 2013.

CONSTRUCTION OUTLOOK IMPROVES FOR 2013

Recent polls have indicated that significantly more construction firms are planning to add new staff than cut staff and the increase appears to be related to increases in private sector construction projects. This information is based on a January 15th Poll by the Associated General Contractors of America and Computer Guidance Corporation. Firms are concerned about rising costs and declining public sector demand, but the general outlook is optimistic. Thirty-four percent of firms polled plan to add staff this year while only nine percent plan to make layoffs. Those planning layoffs indicated that layoffs would be modest.

After many difficult years, this is good news for contractors.

With respect to construction equipment leasing, 77 percent of firms plan to lease equipment this year, as compared to 78 percent planning to lease equipment last year.

Let's hope this means "back to work" for more Americans many of whom have been hard pressed looking for jobs.

ProCOMPLIANCE WARE – ENVIRONMENTAL COMPLIANCE TRACKING FROM SMALL AND MID-SIZE BUSINESS

ProCompliance Ware (PCW) is new software which allows small and medium-size businesses to more efficiently track environmental compliance deadlines, and maintain inspection forms, reports, and other compliance documents more efficiently. Edward N. Sailer, who has longtime experience both in the public and private sectors, says that PCW can track compliance deadlines and provide a platform to place "fillable" documents, such as inspection forms. The documents can be uploaded to the system where auditors work, providing more efficiency for a variety of businesses.

The system is designed to replace volumes of paper documents that are required to maintain compliance with a myriad of federal and state laws and regulations that companies are subjected to.

You can log on to ProCompliance Ware at www.procomplianceware.com. If you would like a demo of the system please click the login button and use the User Name "demo" and password "demo". Ed Sailer can be contacted at 203-245-7744, to answer any questions, or, you can contact him by email at esailer@sailerenv.com

NEW MOLD SPECIES FOUND

Scientists in the United States have discovered nine new mold species that can contribute to sick building syndrome. Mold is a big health issue that cannot be ignored. The nine new mold species have been found, all of which are now being quantified where present in Agar Plate samples, by qualified laboratories involved in microbial analysis. The nine new species are:

- Aspergillus austroafricanus*
- Aspergillus creber*
- Aspergillus cvjetkovicii*
- Aspergillus fructus*
- Aspergillus jensenii*
- Aspergillus puulaauensis*
- Aspergillus subversicolor*
- Aspergillus tennesseeensis*
- Aspergillus venenatus*

Some of the species cause allergenic reactions, and RT has found concentrations of the new species on a number of our mold investigation and abatement projects. Research leading to the findings of the species were published in the June 2012 issue of IMA Fungus. *Aspergillus* species are known to produce the mycotoxin sterigmatocystin, which can be a cause of sick building syndrome.

Then most common new mold species found in the US is *Aspergillus creber* and *Aspergillus jensenii*.

While these odd names may sound too complex to bother many, the health impact may be something workers cannot ignore. While everyone will be impacted by the building air quality, nearly every building has one or more person that is susceptible to the chemicals and toxins in the air.

Aspergillus is not as harmful as black mold (stachybotrys), but is known to colonize in the lungs of vulnerable people. Fundamentally, there is no good mold in the home or building although there have been medical uses found for mold, like penicillin. If mold is found in a building, you essentially have a potential biohazard that could get worse, but never better.

For more information on mold contact Tony Alessandrini by phone at 856-467-2276 x 110 or by email at talessandrini@rtenv.com.

STREET SWEEPING PILOT STUDIES

The City of San Diego, CA, Transportation and Storm Water Department has been aggressively testing assumptions regarding street sweeping and

its role as a best management practice (BMP) for stormwater pollution prevention. The City has gathered significant data regarding how to best optimize the use of street sweeping equipment and routes.

Summary of Pilot Study Results

Generally, the Phase I frequency study results indicate that increased sweeping frequency using vacuum-assisted sweepers provided a linear increase in debris removal benefit. That is, additional sweeping with the vacuum-assisted sweeper resulted in similar debris removal rates at both the once-per-week and twice-per-week sweeping frequencies.

The Phase II machine type results indicate that the vacuum-assisted sweepers are generally more effective than the regenerative air and mechanical sweepers at removing debris and specially fine particulates. However, the study results also indicate that site-specific variations in roadway surface condition, roadway grade, and presence of a curb and gutter may have limiting impacts on vacuum-assisted machine performance.

The Phase III median sweeping results indicate that the initial median sweeping event collected three to five times more debris than subsequent three-week interval sweeping events. This suggests that a significant buildup of roadway debris occurs within and adjacent to median areas. The results also indicate that debris collected from median areas is similar in pollutant concentrations to the curb and gutter areas on the shoulder edge of the roadway surface. Preliminary raised median hand sweeping results indicate there are potentially significant concentrations of common roadway constituents present on the raised median surfaces, where traditional sweeping machines are unable to reach.

Results from the Phase IV speed efficiency study indicated that the operational speed of mechanical street sweepers has little impact on the weight of debris collected in the field. The weight of material collected by the sweepers on the portions of the routes that were swept at the study operation speed (3 to 6 miles per hour) and the control operational speed (6 to 12 miles per hour) was highly variable. In some cases the treatment operational speed collected a higher weight of material, and in other cases the control operational speed collected a higher weight of material.

(By: Clem Brown and Brian Evans – Stormwater January/February 2013)

Phases of the Targeted Aggressive Street Sweeping Pilot Program		
Phase	Pilot Program Optimization Technique	Description
I	Sweeping Frequency Study	Assess the pollutant-removal efficiency of weekly and biweekly sweeping frequencies using using both mechanical and vacuum sweepers
II	Machine Technology Study	Assess the pollutant-removal efficiency of mechanical, vacuum assisted and regenerative-air sweeper machines.
II	Median Sweeping Study	Assess the pollutant-removal efficiency of sweeping the median roadway areas compared to the shoulder edge curb and gutter
V	Speed Efficiency Study	Assess the pollutant-removal efficiency of mechanical sweepers at normal and reduced operational speeds

PENNSYLVANIA BULLETIN NOTICES

The Department of Environmental Protection published a notice withdrawing a proposed amendment to General Permit WMGR064 to allow the use of gas well brines as a dust suppressant and as a stabilizer for unpaved secondary roadway systems.	November 26, 2012
Draft: DEP ID: 563-2112-115. Title: Developing National Pollutant Discharge Elimination System (NPDES) Permits for Mining Activities.	November 26, 2012
Draft: DEEP ID: 562-5900-001. Title: Surface Mine Accident/Incident Investigations.	December 3, 2012
Board of Coal Mine Safety – Requirements for Automatic External Defibrillators – This rulemaking will go into effect on March 1, 2013.	
Final: DEP ID: 263-4500-601. Title: Closure Requirements for Underground Storage Tank Systems.	December 17, 2012
Final: DEP ID: 263-4200-001. Title: Closure Requirements for Aboveground Storage Tank Systems.	December 17, 2012
The Department of Environmental Protection published a notice announcing the availability of the final Erosion and Sedimentation Control General Permit 2 for Earth Disturbance Associated with Oil and Gas Exploration, Production, Processing or Treatment Operations or Transmission Facilities and source reporting requirements for natural gas operations and ozone season nitrogen oxide emission limits for non-electric generating units.	December 31, 2012
DEP also published a notice of the final Policy for Erosion and Sediment Control and Stormwater management for Earth Disturbance Associated with Oil and Gas Exploration, Production Processing or Treatment Operations or Transmission Facilities and rescinding the Guidance for Using the Modified Minor Permit Amendment for Repainting the Interior of Potable Water Storage Tank	December 31, 2012
Final: DEP ID: 550-2100-008. Title: Policy for Erosion and Sediment Control and Stormwater management for Earth Disturbance Associated with Oil and Gas Exploration, Production, Processing or Treatment Operations or Transmission Facilities.	December 31, 2012
Rescission: DEP ID: 383-2125-109. Title: Guidance for Using the Modified Minor Permit Amendment for Repainting the Interior of a Potable Water Storage Tank.	December 31, 2012
The Department of Environmental Protection published notice of a final Drinking water and Wastewater Systems Operator Certification Handbook.	January 28, 2013
Final: DEP ID: 391-2300-001. Title: Drinking Water and Wastewater Systems Operator Certification Program Handbook.	January 28, 2013
The Department of Environmental Protection published a notice announcing the availability of the final GP-5 General Permit to regulate natural gas compression and processing facilities.	February 4, 2013
The Department of Environmental Protection published a notice proposing changes to all Chapter 105 Water Obstruction and Encroachments Permits and 401 Water Quality Certifications for consistency with revised Chapter 105 regulations.	February 18, 2013
The Department of Environmental Protection published a notice inviting comments on a draft policy on the review of onlot sewage systems in High Quality and Exceptional Value watersheds.	March 4, 2013
Philadelphia Air Management Services published a notice announcing an April 4 public hearing on proposed revisions to the State Air Quality Implementation Plan to meet the requirement of reasonably available control technology under the 8-hour federal ozone standard.	March 4, 2013
Draft: DEP ID" 385-2208-001. Title Sewage Facilities Planning Module Review for Onlot Sewage Systems Proposed in High Quality and Exceptional Value Watersheds.	March 4, 2013
Final: DEP ID: 385-2000-011. Title: Pennsylvania Combined Sewer Overflow Policy	March 11, 2013
The Department of Environmental Protection published notice of changes to technical guidance: rescission of change orders for the Hazardous Sites Cleanup Program.	March 18, 2013
DEP also published a correction to the final General Plan Approval and Operating Permit for natural gas compression and process facilities and notice of changes to companies certified to perform radon-related activities.	March 18, 2013
Final: DEP ID: 253-5700-621. Title: Off-Site Audit Manual for Hazardous Sites Cleanup Program.	March 18, 2013
The Department of Environmental Protection published a notice of availability of the General Permit for concentrated animal feeding operations. (PAG-12).	March 25, 2013
The Department of Environmental Protection published a Notice of bond rate guidelines for land reclamation bonds on coal mining operations.	March 25, 2013
Draft: DEP ID: 563-2000-301. Title: Use of Reclamation Fill at Active Noncoal Sites.	March 25, 2013
Final: DEP ID: 385-4000-002. Title: Field Order Instruction Manual for the Clean Water Program.	April 1, 2013
Final: DEP ID: 394-2000-001. Title: Municipal Reference Document : Guidance for the Implementation of the Chapter 85 Bluff Recession and Setback Regulations: Description: The Bluff Recession and Setback Act of 1980 (BRSA) and regulations at 25 PA. Code Chapter 85 (relating to bluff recession and setback) establish the Lake Erie bluff setback pattern.	April 1, 2013
Final: DEP ID" 383-2127-103. Title Permitting of Bulk Water Hauling Systems Guidance.	April 1, 2013
Final: DEP ID: 253-0300-100. Title: The Land Recycling Program Technical Guidance Manual.	April 8, 2013

FEDERAL REGISTER NOTICES

<http://www.epagov/homepage/fedrgstr>

Environmental Protection Agency; Approval and Promulgation of Air Quality Implementation Plans; Maryland; the 2002 Base Year Inventory for the Baltimore, MD Nonattainment Area for the 1997 Fine Particulate matter national Ambient Air Quality Standard	(Federal Register – (12/10/2012))
Federal Energy Regulatory Commission; Small Generator Interconnection Agreements and Procedures.	(Federal Register – (2/1/2013))
Environmental Protection Agency; Method for the Determination of Lead in Total Suspended Particulate Matter	(Federal Register – (2/5/2013))
Surface Mining Reclamation and Enforcement Office; Abandoned Mine Land Reclamation Program; Limited Liability for Noncoal Reclamation by Certified States and Indian Tribes.	(Federal Register – (2/6/2013))
Environmental Protection Agency; Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards.	(Federal Register – (2/7/2013))
Environmental Protection Agency; Polychlorinated Biphenyls (PCBs); Recycling Plastics from Shredder Residue.	(Federal Register – (4/5/2013))
Environmental Protection Agency; Approval and Promulgation of Implementation Plans; New Jersey; Infrastructure SIP for the 1997 8-Hour Ozone and the 1997 and 2006 Fine Particulate Matter Standards.	(Federal Register – (4/10/2013))
Environmental Protection Agency; Protection of Stratospheric Ozone: Revision of the Venting Prohibition for Specific Refrigerant Substitutes.	(Federal Register – (4/12/2013))
Environmental Protection Agency; Final National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Incidental to the Normal Operation of a Vessel.	(Federal Register – (4/12/2013))
Environmental Protection Agency; Oil and Natural Gas Sector: Reconsideration of Certain Provisions of New Source Performance Standards: Proposed Rule	(Federal Register – (4/12/2013))
Environmental Protection Agency; Approval and Promulgation of Implementation Plans; Revision to the New York State Implementation Plan for Carbon Monoxide.	(Federal Register – (4/12/2013))
Environmental Protection Agency; National Emissions Standards for Hazardous Air Pollutants: Mineral Wool Production and Wool Fiberglass Manufacturing; National Emission Standards for Hazardous Air Pollutants for Gas-Fired Melting Furnaces Located at Wool Fiberglass Manufacturing Area Sources.	(Federal Register – (4/15/2013))

RT'S SCOPE OF SERVICES

ENERGY

- **General Permits**
- **Erosion & Sediment Control**
- **Wetlands Permits**
- **Beneficial Use**

ENVIRONMENTAL

- **Phase I ESAS**
- **Tanks**
- **Stormwater**
- **Expert Services**
- **Asbestos**
- **Mold**
- **Lead Based Paint**
- **Cleanups**

FOR SITES WITH ERODIBLE SOILS – AN ANSWER TO MINIMIZE EROSION

For a number of years, the National Resource Conservation Service has recommended enhanced soil stabilization, and use of flocculants in basins, to minimize downstream impact from soil loss, when construction is completed at sites with erodible soils. A relatively benign polymer, produced by BASF, has been touted as a suitable material to use, particularly in the first few months to a year, after earthwork has taken place at sites with erodible soils, during the period where vegetative stabilization is still underway.

Experienced civil engineers and contractors know that at some sites where soils are erodible, simply having 70% vegetative coverage, does not stop erosion from taking place. Until vegetation really takes hold, and smaller particles run off, and roots expand from the planted vegetation, erosion loss of fine particles is still significant. The recommended material to use for stabilization is called Magnafloc LT340, which is also known as an anionic polymer flocculant.

RT'S 24-HOUR URGENT HOTLINE
(800) 725-0593



KEY HIGHLIGHTS

NJ UPDATES

- Vapor Guidance Update, pg. 11
- TCE Limits, pg. 11

PA UPDATES

- Pittsburgh River Aquaponics, pg. 3
- Presque Isle Cleanup Complete, pg. 9

FEDERAL UPDATES

- HazMat Transport, pg. 5
- RCRA Wipes, p. 8

TECHNOLOGY UPDATES

- Black Carbon and Climate Change, pg. 14
- Turning Down City Lights, pg. 15
- Traffic and Asthma, pg. 15

RT ENERGY SERVICES UPDATES

- New Frack Standards, pg. 1
- Fossil Fuels - Greening the Planet?, pg. 10
- 2012 Jump in Oil Production, pg. 10

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**IN THIS
ISSUE**

STEEL MILL REDEVELOPMENT
Page 1

**NO STORMWATER “FLOW”
FOR TMDLS**
Page 4

RICE AIR RULES
Page 5

NJ PCB REMEDIATION UPDATE
Page 11

NJ PERMIT WAIVERS OK
Page 12

GREENHOUSE GAS UPDATE
Page 13

**VANCOUVER - RECYCLABLES IN
ASPHALT ROADS**
Page 14

NEW LFG REGULATIONS
Page 14