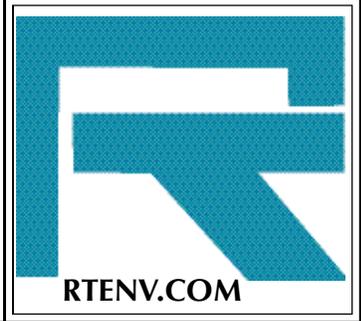


The RT Review

The Latest on Environmental Issues From Your Solution-Oriented Environmental Services Firm

• Environmental Engineers & Scientists • Geologists • Remedial Contractors



ENDANGERED SPECIES OF CONCERN TO DEVELOPERS IN PENNSYLVANIA AND NEW JERSEY; RT EXPANDS SERVICES

Although state level environmental agencies are less enforcement oriented than they have been in the past, public support for the anti-sprawl initiatives have caused state agencies to focus on the potential presence of endangered species, and their habitat, which can cause sites to be unsuitable for development, and in some cases, redevelopment.

NJDEP has focused on endangered species issues for a number of years, and, a number of months ago, Pennsylvania DEP expanded its reach by requiring Pennsylvania National Diversity Inventory Reviews to be completed, whenever erosion and sediment control plan applications are made to County Conservation Districts.

Each state takes a different regulatory approach once endangered species are suspected. In Pennsylvania, consultants usually interface with DEP staff, to determine an appropriate scope or to modify construction plans to avoid habitat loss, destruction, or impacts, where the endangered species are actually found. In New Jersey, DEP itself usually takes the lead in conducting its own site inspections, which unfortunately, can hold up projects and their applications for a matter of months, due to overloaded schedules of DEP staff.

In both states, checking for endangered species very early on the site acquisition and site planning process is more critical than ever, to avoid nasty surprises later, when large parts of a site are found unsuitable for development or redevelopment, and "offsets," simply won't be allowed by state and federal regulators. Where there are endangered species present as designated by the Federal Government, loss of habitat or implementation of development or redevelopment which may impact habitat or the species simply can be disallowed.

At many sites, due to the nature of habitat, endangered species issues are intertwined with federal and state wetlands and stream encroachment issues. We at RT

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STORMWATER BEST MANAGEMENT PRACTICES ARE MORE CRITICAL TO SITE DEVELOPMENT AND REDEVELOPMENT

Implementation of Stormwater Best Management Practices has become more important to site development and redevelopment activities. There are many sites which are planned for redevelopment where prescribed Best Management Practices to facilitate infiltration are not practical, either because the site is contaminated, or, because soils or underlying geology are not physically suitable for enhanced infiltration. In some more extreme instances, (such as in sinkhole prone areas), increased infiltration is considered dangerous, where underlying sinkholes can cause collapse of parking lots or structures.

As more attention is paid to Stormwater Best Management Practices, it is viewed as appropriate to add offsetting "Water Quality" Best Management Practices, where "Water Quantity" Best Management Practices, are not feasible. Enhanced Water Quality Best Management Practices can include less use of conventional catch basins and piping, and more use of grass filters, "wet" detention basins with natural wetlands vegetation added, or, measures such as pervious pavement, with increased infiltration in wider areas, beneath pavements, where crushed stone to support the pavement can be designed or is already present. (Such "wider area" infiltration is less of a concern at many sites with low permeability soils or sinkhole potential, because infiltration is not concentrated.)

RT has a number of environmental professionals experienced at implementing alternative Best Management Practices at sites in Pennsylvania and New Jersey. Our experience cuts across agricultural, horticultural, commercial, industrial, and residential sites, in a wide variety of Tri-State site settings. Our experience on developing Stormwater Best Management Practices actually goes back to 1989, when some of the earliest innovative stormwater management schemes were implemented at the

Henderson Road Site, where "On Pavement" temporary storage of stormwater from high intensity events has been practiced successfully, for more than fifteen years. At other contaminated sites, such as the School Site Landfill in Upper Merion Township, we designed a lined detention basin on top of a now closed landfill, to work in combination, with a second, smaller pond, installed at the landfill entrance. We have also found ways to stabilize slopes using innovative stabilized riprap techniques, which are considerably less costly than either mat materials or gabions.

For more information, or if we may assist you in developing alternative Best Management Practices for your site, please call Gary Brown at 610-265-1510 Ext. 34.

ZONING RULES IN PHILADELPHIA REGION AMONG NATION'S STRICTEST

This isn't the wealthiest metropolitan region in America, nor the fastest-growing. Our national ranking in terms of income, education, culture and technological altitude is debatable.

But there's one area in which the Philadelphia region is evidently way out in front of the pack, with only a handful of other metros for company: We've got some of the tightest zoning in the land.

According to a new Wharton School study, the cities, towns and boroughs in this region regulate development more strictly, on average, than the vast majority of American communities.

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ENDANGERED SPECIES OF CONCERN TO DEVELOPERS IN PENNSYLVANIA AND NEW JERSEY; RT EXPANDS SERVICES

(continued from page 1)

have substantial experience in managing threatened and endangered species as well as wetlands and stream encroachment issues. RT's staff available to assist with these projects include:

• **Justin Lauterbach** – an Environmental Scientist, who has completed assignments to screen and resolve threatened and endangered species issues at a large number of regional sites, planned for commercial and retail redevelopment.

• **Randy Piersol** – an Environmental Scientist with previous experience as an Enforcement Specialist for the US Army Corps of Engineers. In addition to stream encroachment, and wetlands experience, both in tidal estuaries and fresh water areas, Randy is familiar with federal and state pro-

gram integration requirements, and he also has experience resolving wetlands and stream encroachment issues at an acid mine drainage site in Pennsylvania.

• **Adam Meurer** – an Environmental Scientist with experience in conducting the field work and research at threatened and endangered species sites. He has completed work at a broad range of wetlands and potential threatened and endangered species sites, to help determine whether habitat or species concerns actually do or do not exist at individual sites.

For more information on RT's capabilities to address threatened and endangered species and wetlands issues, call Justin Lauterbach at 856-467-2276, ext. 119, or Randy Piersol at 610-265-1510, ext. 26.

RT STAFF & PROJECT NEWS

Late winter was a busy period, as key RT Staff are preparing for seminars and presentations to help keep our clients up to date on new and changing environmental laws and regulations. Mr. Gary Brown and Mr. Justin Lauterbach will be presenting and attending the Pennsylvania Chamber of Business and Industry Annual Environmental Seminar on April 17th and 18th. Mr. Brown will focus on Pennsylvania specific Environmental Management Systems.

RT's annual Environmental Update Seminar with the Tri-State Realtors and the Montgomery County Industrial Development Corporation is scheduled for April 10, 2007. Redevelopment strategies and potential work-out opportunities are the focus of this seminar. In addition, the Pennsylvania Environmental Council on April 17, 2007 will have a presentation of awards in Harrisburg, which will be attended by Mr. Brown, Mr. Craig Herr and Mr. Lauterbach. RT will be VIP sponsor of this event.

Mr. Walter Hungarter, on March 1, 2007, is delivering a seminar for contractors in the Reading, PA area, to keep them up to date on environmental issues affecting the construction industry.

This year, RT will be a Platinum Sponsor for the annual Environmental Law Forum in Harrisburg, which is scheduled for April 11th and 12th. The Pennsylvania Bar Institute sponsors this seminar, which draws environmental lawyers from throughout the state.

Mr. Anthony Alessandrini will be attending a March 21, 2007 Apartment Association of Greater Philadelphia conference, as RT continues to expand its services related to asbestos, lead-based paint and mold.

On February 26, 2007 RT sponsored a seminar on the New Jersey Environmental Safety legislation, which affects daycare centers being located, expanded, or which will have continuing operations in New Jersey. This is follow up to the Kiddie Kollege incident in Gloucester County, where a daycare center was found unknowingly to be operating in a former thermometer factory, where significant mercury concentrations were found.

Mr. Shane Dorward and Mr. Glenn Graham are working on a New York State MTBE case, where water supplies are being examined for potential impacted MTBE. Ms. Jaci Kopacz and Ms. Kristine Foldes are working on material approvals for a Bellmawr Redevelopment Site, which has been previously featured in the RT Review.

Mr. Thomas Donovan is working on a site in Maryland, which is being redeveloped in phases. Work includes completing focused Phase I Environmental Site Assessments for selected parcels, where the final reports being submitted for Wall Street investment, through the "securitization" process.

Mr. Larry Bily continues work at a Philadelphia remediation site, where remaining investigative services are expected to be wrapped up to determine remedial needs in a number of former industrial buildings, where PCB impacted floor services are present.

Mr. Christopher Ward and Mr. John Yaman are working on upgrading of stormwater oil/water treatment system at contracting equipment facilities in Bucks County and Delaware County.

As always, we appreciate the opportunity to be of service to our clients, and we expect a busy 2007, thanks to our client's support.

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ZONING RULES IN PHILADELPHIA REGION AMONG NATION'S STRICTEST

(Continued from page 1)

Builders and developers here must spend more time, obtain more approvals, and jump through more bureaucratic hoops than almost anywhere else in the country, say the study's authors, Wharton professors Joseph Gyourko and Anita Summers.

Their survey found that only around Boston and Providence, RI, are zoning regulations more stringent, on average, than they are here. Among other major metropolitan areas, only San Francisco and Seattle are in a class with Philadelphia.

The findings stem from a multiyear project by Wharton's real estate division, which surveyed zoning practices in more than 2,600 towns and cities across the country. What they found in the Philadelphia region may not surprise anyone who has ever followed a local zoning case. The process is typically long, convoluted and expensive, with multiple approvals and layers of appeal.

And that's true even if the project conforms to existing zoning rules. The evidence: The average time it takes for a local board in this area to review a land-use case is double the national average, Summers said.

Why are the rules here so strict? That's a tougher question. Motivations overlap. In general, the more dense the area, the less rigorous the zoning.

That includes Philadelphia proper, which is studying an overhaul of its zoning code. By Wharton's yardstick, the city is more developer-friendly than most of its suburbs.

"Central cities in general are less regulated by our measure, than the suburbs," Gyourko said. "In many suburbs, you can't get anything through. They just don't want it." The researchers also strongly suspect a link between tight land-use restrictions and regional economic growth.

(by Andrew Cassel, excerpts from Philadelphia Inquirer Article – 1/28/07)

PA UPDATES

DEP FINALIZES STORMWATER BMP MANUAL, NUTRIENT/SEDIMENT TRADING POLICY

The Department of Environmental Protection published a notice in the PA Bulletin December 30 saying it has finalized the Pennsylvania Stormwater Best Management Practices (BMP) Manual and its policy for trading nutrient reduction credits. The BMP Manual is available through PADEP's website.

(PA Environment Digest – 12/30/06)

WORLD'S LARGEST SOLAR DEVELOPER COMING TO PENNSYLVANIA

Pennsylvania looks good to the world's largest solar power integration company, Conergy AG of Germany. The firm has decided to locate the North American headquarters of its financial subsidiary, voltwerk, and the East Coast operations of its solar engineering and installation subsidiary, SunTechnics, in the state.

The move will create up to 50 engineering, financing and management jobs and up to \$100 million in clean energy deals over the next three years, Governor Edward Rendell announced.

"The international community is taking notice of Pennsylvania's clean energy efforts," Governor Rendell said. "Our commonwealth is a leader in helping to build and deploy a diverse array of alternative energy projects, and that leadership is attracting investments in manufacturing and creating jobs for our residents."

"The renewable energy market in the United States is growing rapidly and Pennsylvania is taking a leadership role," said Mac Moore, regional head for Conergy in North America. "With the state's forward-thinking policies, we see tremendous potential to develop renewable energy projects and are very pleased to become a part of Pennsylvania's business community."

Conergy, through its voltwerk and SunTechnics divisions, develops more renewable energy systems than any other company in the world, principally focusing on solar, wind and bioenergy projects.

The state also is home to the Spanish wind-energy company Gamesa Corp., the second largest wind energy company in the world.

Pennsylvania's clean energy law mandates 700 megawatts of electricity from solar photovoltaics by 2020, the second largest solar requirement in

the country. Within a year, the state also could be the nation's leading producer of biodiesel with a projected 40 million gallons of annual production.

There are more than 5,000 megawatts of untapped wind power in the state, with the potential to generate 45 billion kilowatt-hours annually, or enough to power more than five million homes.

(ENS – 11/13/06)

ABANDONED MINE BILL WOULD ALLOW PENNSYLVANIA TO COLLECT \$1.5 BILLION TO REMEDIATE DANGEROUS MINES

The state of Pennsylvania will receive nearly \$1.5 billion in federal funding from an account created to help states reclaim Abandoned Mine Lands (AML) thanks to legislation passed in December by the U.S. House and co-written by Congressman John E. Peterson, R-Pleasantville. The legislation, attached to a broader measure that also included provisions to expand access to vital energy reserves offshore, passed by a vote of 367-45 and was sent to the Senate for final approval.

(PADEP Update – 12/11/06)

NEW ELECTRONICS RECYCLING AND REUSE GUIDE HELPS PENNSYLVANIA RESIDENTS REDUCE E-WASTE

Use It Again, PA! (www.useitagainpa.org) has launched a comprehensive online resource center for electronics reuse and recycling in an effort to help lessen the environmental impact of these sales. Use It Again, PA! is a searchable online guide to businesses that rent, repair, or sell used goods statewide.

(PADEP Update – 12/15/06)

PA CHAMBER OF BUSINESS AND INDUSTRY COMMENTS ON NUTRIENT TRADING POLICY

The PA Chamber of Business and Industry issued comments to PADEP on the PADEP Policy and Guidelines for Trading of Nutrient and Sediment Reduction Credits, and the associated trading guidelines with respect to the Chesapeake Bay nutrient trading program.

Key issues of concern to the business community include:

- What happens if a credit generator fails to implement the activities (best management practices) that create the credits that are sold; and defining the responsibilities of credit purchasers in terms of enforcing the obligations of credit generators to actually perform the best management practices that create the credits that were purchased? (The Chamber contributed to the drafting of a model contract, but that contract is still a work in progress, and is not appended to the draft guidelines.)

- How are credits to be "verified" on an annual basis; what is the timing and process for verification?

- What credit arrangements must be demonstrated at the time of Act 537 Sewage Facility Plan review? (the guidelines suggest that project proponents must demonstrate credit for the life of the facility, which we believe is impractical).

Other comments and concerns include:

- Managing Credits – Under the Draft Trading Guidelines, prior to or at the outset of a trading transaction, a non-point source proposing to generate credits will apparently commit to perform certain BMPs over a period of time (say 10 years). After appropriate review, the department will confirm that the generating source's proposal is eligible to create a certain number of nutrient credits in each year over the given commitment period. After that point, however, the Draft Trading Policy remains fairly vague about what happens, and who is responsible (and to what extent) if the credit generating activities are not implemented.

- Model Trading Contract and Essential Elements – The proposed language says that a model trading contract will be created to assist the process. We strongly endorse this idea. The marketplace cannot operate efficiently unless the "terms of the trade" are clearly understood by all parties; and case-by-case negotiation of contracts without a well-balanced model and template will cause excessive transaction costs that will deter participants.

This same section goes on to state that the Department will look for certain "essential elements" of a trading contract. However, those "essential elements" are not identified or explained. This aspect of the program is one of the more critical ones. All effective commodity

PA UPDATES (continued)

and other trading markets are based on well understood contractual arrangements that all market players understand. The Draft Trading Guidelines are really incomplete without this key aspect.

• Use of Credits in Sewage Facilities (Act 537) Planning Program – The last sentence of Section G (page 14) states that the department will expect to see assurances in the proposal for a new or expanded treatment facility that “the credits will be available for the life of the treatment facility” or, if not, another method is provided to meet the regulations in chapter 71.

This statement, the Chamber believes, sets up a nearly impossible hurdle to satisfy, at least with respect to use of non-point source credits. The typical industrial or municipal wastewater treatment facility has a very long “life” of 25 to 50+ years. Most nutrient credits based on BMPs will probably be generated under contracts that contain implementation commitments in shorter increments (say 5 years or 10 years), although the practices may well be continued and the contracts renewed, or replacement credit generating activities may be implemented at another site to compensate for changes at a particular farm. Expecting an industry or municipality to “sign up” 50-years of credits before a sewage facilities plan can be approved is simply unrealistic.

The Chamber also notes that the NPDES permit for industrial and municipal treatment facilities is only five years, and that prior to renewal of each permit, the permittee must submit appropriate renewal applications. It would seem more realistic to require at the sewage facilities planning stage a submission of a plan and arrangements for credits over the first five year period of a proposed new or expanded treatment facility, and then have permittees show how they will

satisfy the credits requirements in each five-year permit renewal increment.

CONSTRUCTION WASTE MANAGEMENT FEATURED IN ENVIRONMENTAL DESIGN AND CONSTRUCTION MAGAZINE

Construction Waste Management is a Pennsylvania company which practices source separation and reuse of materials from construction sites, throughout our region. A key material which finds ongoing reuse is gypsum, which comes from scrap drywall, generated at new construction as well as building renovation sites. Mannington Mills in Salem, NJ has developed resilient tile flooring which contains gypsum from recycled drywall. Mannington Mills now uses this material, in lieu of virgin limestone, in a number of their floor tile product lines.

RT assisted Construction Waste Management in obtaining a PA General Beneficial Use Permit which allows for maximum recycling of construction waste, right at the jobsite. For more information on Construction Waste Management services call Jonathan Wybar or Avi Golen at 215-333-5077.

(Excerpts from Environmental Design and Construction – December 2006)

PADEP ISSUES 8TH EDITION – CONTINUOUS SOURCE MONITORING MANUAL

The latest edition of the Continuous Source Monitoring Manual is now available at: www.dep.state.pa.us/dep/deputate/airwaste/aq/cemspage/cemshome.htm

A summary of the changes can be viewed in The Pennsylvania Bulletin at: www.pabulletin.com/secure/data/vol36/3650/2463.html

(Air Compliance News – Winter 2007)

REVISIONS TO COMPOSTING GENERAL PERMIT – PROPOSED

As a result of comments from SWAC members, General Permit WMGR025 for the composting and beneficial reuse of organic municipal and residual waste was revised and has been published as draft. Dan Lapato will review the changes made since SWAC last saw the GP in November. Public comments on the draft GP were due by March 28, 2007.

PA UPDATES ITS UTILITY ONE CALL PROGRAM

Act 287 was passed late in 2006, which modifies the utility excavation One Call System.

Act 287 key enhancements and additions include:

Implementation of damage prevention industry Common Ground Alliance best practices. Provision for the use of new national abbreviated 8-1-1 dialing for excavation notification. Provision of tools for local law enforcement or emergency personnel to stop unsafe excavation to protect public safety.

Requirements that an excavator dial 9-1-1 in the event of excavation that results in escape of flammable, toxic or corrosive gas or liquid which would cause danger to life, health or property. Requirements for the use of subsurface utility engineering techniques for all large or complex excavations under American Society of Civil Engineers standards CI/ASCE 3802.

Increases in the maximum penalties under the Act from \$25,000 to \$50,000.

Provision of penalties for anyone tampering with the facility owner's markings.

The Act is available for viewing or download at: www.puca.org.

(Excavation Safety Guide – 2007)

2006 WAS THE SIXTH WARMEST YEAR EVER

Globally, the year 2006 is estimated to have been the sixth warmest year since record-keeping began in 1880, according to records maintained by member governments of the World Meteorological Organization, WMO. Final figures will not be released until March 2007.

Following established practice, WMO's global temperature analyses are based on two different datasets. One is the combined dataset maintained by the Hadley Centre of the UK Met Office, and the Climatic Research Unit, University of East Anglia, UK.

The other is maintained by the U.S. Department of Commerce's National Oceanic and Atmospheric Administration, NOAA. Both indicate that 2006 is likely to be the sixth warmest year globally.

The global mean surface temperature in 2006 was 0.42 degrees Celsius above the 1961-1990 annual average of 14°C or 57.2 degrees Fahrenheit, the United Nations weather agency said.

Since the start of the 20th century, the global average surface temperature has risen 0.7°C, but this rise has not been continuous.

The steepest rise has occurred since 1976, at 0.18°C (.32°F) per decade.

In the northern hemisphere, the 10 year period 1997-2006 averaged 0.53°C above the 1961-1990 mean.

And in the southern hemisphere temperatures averaged 0.27°C above the 1961-1990 mean.

Ozone depletion in the Antarctic reached a record level on September 25, 2006, with the ozone hole measured as slightly larger than the previous record seen in September 2000.

The size and persistence of the 2006 ozone hole area with its record ozone mass deficit of 40.8 megatons can be explained by the continuing presence of near-peak levels of ozone-depleting substances in combination with a particularly cold stratospheric winter, the WMO said.

The year 2006 continues the pattern of sharply decreasing Arctic sea ice, the WMO said. The average sea ice extent for the entire month of September was 5.9 million square kilometers, the second lowest on record.

Including 2006, the September rate of sea ice decline is now nearly nine percent per decade, or 60,421 km² per year.

The 2006 average annual temperature for the lower 48 United States is estimated as the third warmest on record, according to scientists at NOAA's National Climatic Data Center. The year is noted for widespread drought and record wildfires, as well as heavy precipitation and flooding in some parts of the country.

NOAA predicts the 2006-2007 winter will also be warmer than average. "The prediction for a warmer than normal winter season does not mean we won't have winter weather," said Mike Halpert, lead seasonal forecaster at the NOAA Climate Prediction Center. "What it does mean is that on average this will be a milder than average winter across much of the North, with fewer Arctic air outbreaks."

Vancouver, Canada experienced its wettest month ever in November with 351 mm, nearly twice the average monthly accumulation.

Persistent and heavy rainfall during May brought historic flooding to the U.S. region of New England described as the worst in 70 years in some areas.

Across the U.S. mid-Atlantic and northeast, exceptionally heavy rainfall occurred in June. Numerous daily and monthly records were set and the rainfall caused widespread flooding which forced the evacuation of some 200,000 people.

In August, conditions in the central and western equatorial Pacific started resembling typical early stages of an El Niño event. By the end of the year, the typical El Niño warmer than average sea-surface temperatures were established across the tropical Pacific basin.

The El Niño event is expected by global consensus to continue at least into the first quarter of 2007.

TECHNOLOGY UPDATES

CHESAPEAKE BAY SUMMER HEALTHIER IN 2006

Three key measures of Chesapeake Bay health showed minor improvements during the 2006 summer months compared to a year ago, according to data released by the Chesapeake Bay Program.

Summer dissolved oxygen levels, an essential measure of water quality for nearly all bay species, were somewhat better in 2006 than during the same period last year. But the levels are still typical of the generally poor water quality that affects the Chesapeake every summer.

Underwater bay grasses may be showing areas of improvement, according to bay scientists, but important beds in the lower bay have not fully recovered from major losses in the late summer of 2005.

Researchers also looked at the extent and duration of harmful algal blooms that regularly hit Potomac River waters and found mixed results.

The Chesapeake Bay watershed is home to more than 16 million people living in parts of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia. Since 1983, the Chesapeake Bay Program has coordinated the restoration of the bay and its watershed.

For more detailed information including graphics, charts and maps, visit the Chesapeake Bay Program website at www.chesapeakebay.net/bayforecast.htm

(ENS – 11/9/06)

NEW YORK EXPANDS OPEN SPACE PLAN TO INCLUDE COASTS

Governor George Pataki in November released the 2006 New York State Open Space Conservation Plan, which provides an outline for protecting environmentally sensitive lands and waters throughout the state.

For the first time, the 2006 Plan includes the state's Coastal and Estuarine Land Conservation Program.

"Over the past 12 years, New York State has made significant progress in protecting open space, which has helped to enhance the quality of life for our citizens," Governor Pataki said. "The Open Space Conservation Plan has been an important tool to guide these efforts and identify critical objectives and priorities."

The plan sets the framework to protect some of the most environmentally important lands and waters in the State, and has been instrumental in efforts to expand public parklands, preserve working landscapes for forestry and farming, and create new opportunities for recreation.

Since 1995, New York State has invested more than \$16.5 billion to protect and preserve New York's environment, including more than 975,000 acres of open space statewide.

Under state law, New York's Open Space Conservation Plan is updated by the State Department of Environmental Conservation and the State Office of Parks, Recreation and Historic Preservation, with the assistance of nine regional advisory committees jointly appointed by the state and county governments.

The Department of State also contributes to the plan as part of its implementation of the Coastal and Estuarine Land Conservation Program.

Authorizing this new priority project category will enable the state to acquire lands adjacent to, or in holdings within, existing state forests, unique areas and wildlife management areas.

Implementing a stream buffer easement program as part of the statewide Small Projects category will provide for maintenance of stream buffers to protect water quality and wildlife habitat.

The updated plan incorporates the state's new Comprehensive Wildlife Conservation Strategy into its land acquisition and conservation strategies.

(ENS – 11/15/06)

WINTER AND SUMMER, ARCTIC SEA ICE IS SHRINKING

The extent of Arctic Sea ice has been declining for the past 33 years, according to a new analysis of satellite data by experts at the U.S. National Ice Center.

A tri-agency team from the National Oceanic and Atmospheric Administration, the U.S. Navy, and U.S. Coast Guard, based in Suitland, say the overall trend in summer, winter and multi-year total ice extent is down.

They base their analysis on a new tool, a climatology dataset that is expected to improve seasonal and climatological sea-ice-change forecast research in the Arctic.

"The new datasets show shrinkage in the Arctic Ocean summer ice cover of more than eight percent per decade, and gives us concrete information with which to develop improved seasonal and long-term forecasts in the future," said Pablo Clemente-Colón, the ice center's chief scientist.

The dataset, New 30-Year Arctic Sea Ice Climatology, is derived from a 1972 – 2004 series charting sea ice extent from a combination of satellite observations, measuring instruments on the surface and computer model output.

Both winter and summer sea ice extents are decreasing, although summer shrinkage is more pronounced. "The percentage of multi-year ice in the winter is also decreasing significantly," the scientists found.

(ENS – 11/29/06)

MOLD ABATEMENT – WHAT CHEMICALS ARE OUT THERE?

Before figuring out what chemical works best for a particular structure, mold professionals may find themselves tripping over terms: what is the difference really between a fungicide and biocide, a sanitizer and a cleaner?

"The term biocide is really inaccurate," says Tracy Lantz, regulatory specialist of the EPA's office of pesticide programs, antimicrobials division. By definition, a biocide is a chemical that can kill any type of living organism – the fungus and the client. "If you're using products to kill fungus, the term antimicrobials might be more appropriate," she says.

Cole Stanton, vice president of sales of Fiberlock Technologies Inc. of Andover, MA, says that in older publications, and by the EPA's definitions, "authors tended to use the work antimicrobial as an umbrella."

"One of the biggest sources of confusion even among professionals, and certainly among building owners and homeowners, goes without say-

TECHNOLOGY UPDATES

- NY Vapor Guide, pg. 6
- LBP - Abatement Takes Too Long, pg. 7
- Mercury Hot Spots, pg. 8

ing, is understanding the difference between products that are intended to work in the present versus the future tense," says Stanton.

He feels that chemicals can be divided into two basic families.

"One is your disinfectants, your sanitizers – your 'snapshot-in-time' products, which can be used as cleaners, but their primary intention is to kill microorganisms, including mold.

The other family is your 'future-tense products' which are designed to inhibit future microbial growth – sealants, coatings, fungicidal coatings and other type of growth inhibitors."

Tony Douglas, vice president of Sporidicin International of Rockville, MD, notes that there are four specific types of antimicrobials that the EPA identifies.

"You have antiseptics, sanitizers, disinfectants and the highest tier is sterilization," he says.

According to information from the EPA, sterilizers are used to destroy or eliminate all forms of microbial life – fungi, viruses and bacteria – as well as their spores. EPA also uses the term sporicides to describe these products.

Disinfectants are used on hard, inanimate surfaces and objects to destroy fungus or bacteria, although the spores will not necessarily be destroyed. Sanitizers, on the other hand, reduce, but do not necessarily eliminate, microorganisms to levels considered "safe" as determined by public health codes or regulations. Lantz further explains that sanitizers only kill bacteria, while disinfectants kill bacteria and fungus.

Antiseptics, which prevent infection by inhibiting the growth of microorganisms, are used on or in living things so are actually regulated by the Food and Drug Administration.

One of the most basic ways to treat mold is to use quaternary ammonia. An advantage of this is that there is no chemical residue which can build up if an application has to be repeated. Canadian authorities have recommended quaternary ammonia as the best option for surface mold kill purposes, and we agree.

- Gary R. Brown, CMC, RT Environmental Services

(Mold & Moisture Management – 11/12/06)

NATION'S FIRST OFF-SHORE WIND FARM WINS COURT BATTLE

A Massachusetts court ruled in favor of the nation's first off-shore wind farm planned for Nantucket Sound.

The Massachusetts Supreme Judicial Court issued a ruling that affirmed the May 2005 decision of the Massachusetts Energy Facilities Siting Board approving the construction and operation of undersea transmission lines to serve the Cape Wind Project.

The Alliance to Protect Nantucket Sound appealed the Siting Board's decision to the Court.

The Court issued a unanimous decision in favor of Cape Wind, acknowledging the Massachusetts Energy Facilities Siting Board, MEFSB, for its "eminently reasonable and practical approach" in determining that the transmis-

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sion lines were needed to serve the wind farm, even though the wind farm itself will ultimately require the approval of federal agencies.

Cape Wind President Jim Gordon said, "The state's highest court has now confirmed the validity of the original agency decision, which said emphatically that Cape Wind's power is needed, that Cape Wind will reduce air pollution and that the project is a needed part of our state's energy mix."

The Alliance to Protect Nantucket Sound said today, "The decision by the Massachusetts Supreme Judicial Court, SJC, upholds a conditional permit for the Cape Wind project allowing the transmission cable across state waters. The SJC decision does not confer legitimacy for constructing 130 turbines adjacent to a state ocean sanctuary and does not appreciably advance what remains a very controversial use of our public waters."

The Court's opinion states, "The record shows that the wind farm will tend to reduce market clearing prices for electricity... The savings... would accrue to electric customers, and are estimated to be \$25 million per year for New England customers, including \$10 million annually for Massachusetts customers over the first five years of operation."

"The record clearly documents significant and lasting air quality benefits resulting from the wind farm's displacement of other, primarily fossil-fueled, generators," the Court found.

"Overall, the Siting Board concludes that the air quality benefits of the wind farm are significant, and important for Massachusetts and New England."

(ENS - 12/18/06)

EASTERN SEABOARD NUTRIENT POLLUTION ON THE RISE

Nutrient pollution in estuaries, bays and harbors from the mid-Atlantic to New England is increasing, according to new research published by the National Oceanic and Atmospheric Administration, NOAA.

The agency says the research shows that excess nutrients like nitrogen and phosphorus are a threat to coastal water quality nationwide.

Nutrients can enter the coastal waters from stormwater runoff, sewage treatment plants, septic systems, airborne dust, or agriculture.

The study's findings are compiled in a report, "Improving Methods and Indicators for Evaluating Coastal Water Eutrophication: A Pilot Study in the Gulf of Maine."

"Nutrient pollution is a pervasive problem that impacts ecosystems and human activities, particularly in highly developed areas," says co-author Suzanne Bricker, physical scientist at the NOAA Center for Coastal Monitoring and Assessment.

"Our study found that the problem is greater in the mid-Atlantic region, which has a higher population density and more intensive watershed development than coastal New England," Bricker said.

But New England's estuaries, bays and harbors are by no means clean. Nutrient pollution in the Gulf of Maine is higher than it was early 1990s, the study demonstrates, and conditions are expected to worsen as the coastal population in that region is expected to increase in the future.

NOAA scientists developed a "human use

indicator" that examined the impact of nutrient pollution on recreational fish catches, making the study unique by including human activity as part of the ecosystem, improving traditional methods of assessing eutrophication.

"By including the socioeconomic impacts of pollution in coastal watersheds, we not only prove the value of applying integrated coastal and ocean observing technology in coastal management issues, but also in promoting a coastal stewardship that more fully evaluates the environmental impacts of development and other human activity," said John Dunnigan, director of the NOAA Ocean Service.

In many coastal ecosystems, future nutrient load increases of 10 percent to 25 percent are expected.

(ENS - 1/2/07)

LANDMARK NEW YORK VAPOR GUIDE MAY FORCE WIDESPREAD CLEANUP REVIEWS

New York environmental regulators have finalized a first-time guide designed to check for vapor intrusion at already cleaned-up contaminated sites but have dropped language from an earlier draft that would have eliminated numerous sites from review, a change that observers say could force additional cleanups at many of the sites.

The New York Department of Environmental Conservation (DEC) guidelines drops language that would have allowed property owners or environmental consultants to eliminate vapor intrusion as a concern if a building or other structure is more than 100 feet from a contamination source. The final guidelines, issued Oct. 18 by the DEC, are the first nationwide that propose that regulators revisit cleanups at so-called legacy sites to address new concerns over vapor intrusion.

"The [DEC] has decided to revise the draft policy and not apply a generic threshold criterion based on distance from a source of contamination to an occupied source," the DEC guide says. "At this point in time, there is not sufficient evidence to support setting such a criterion."

Vapor intrusion occurs when contaminants such as leaked fuel and harmful chemicals are released into the air from polluted land or groundwater. Such vapors can rise into the air and contaminate buildings through vents, open windows and doors, and porous pavement.

New York is one of the states considered to have the most vapor intrusion sites, but any state with a history of manufacturing, industry, or military operations is likely to have a large number of properties with the potential for vapor intrusion, government and industry sources say. Sources have also suggested that agricultural lands may also be an exposure source for vapor intrusion that results from pesticide contamination or leaked fuel from farm equipment and underground fuel tanks.

Waste regulators in New York have already sent out dozens of notices to property owners who in the past received "no further action" (NFA) letters, saying that polluted properties would have to be revisited to allow for investigations into possible vapor intrusion exposure. Such letters were previously considered a definitive sign that a site met environmental and health

standards and would no longer trigger any regulatory action.

The guidance says that after a review of the DEC's databases, the department estimates that solvents or other volatile organic compounds have been disposed at over 750 sites in the state, resulting in widespread contamination of groundwater and soil. "Many of these sites have already been remediated and are either in the long-term monitoring phase or were closed once remedial objectives established for the cleanup were met," the DEC guide says. "However, based on recent evidence and a better understanding of soil vapor intrusion and mobility, the soil vapor intrusion pathway may need to be reevaluated at these sites since current exposures related to soil vapor intrusion may exist despite remedial actions having already been completed."

The procedure outlined in the guide says the state will divide sites into those where remedial decisions have not yet been made, and sites where remedial decision for part or all of the site were made prior to January 2003. Sites that do not fit into either of the categories are likely already taking vapor intrusion into account, sources say. Final guidelines issued in October by the New York State Department of Health (DOH) for evaluating vapor intrusion exposure and contamination are to be followed once the site is categorized.

In final DOH guidelines, which changed little from the 2005 draft version, the document proposes data collection methods be used to identify current or potential exposure to contaminants and issues an overview of vapor intrusion mitigation methods. The document also recommends actions that can be taken to address exposure, such as installing "depressurization" systems under buildings to prevent vapor intrusion.

More than 20 states including [Pennsylvania and] New Jersey have developed guides for detecting and measuring vapor intrusion, taking into account state-specific geology and other relevant geographic conditions. No other state or EPA, however, has issued specific guidelines for addressing legacy sites, which are increasingly becoming a concern for real estate industry professionals, environmental consultants and others, who fear that formerly contaminated sites that were once deemed clean are now the subject of remedial investigations.

EPA's guide on vapor intrusion, which was released in draft form in 2002, has been criticized for being too broad and not applicable to local geological conditions. An EPA source says an update is expected to the guide, but does not have a specific timeframe for release. The source adds that agency officials are also working on a document that addresses vapor intrusion risks in non-residential settings, and notes that future EPA guides will reflect recent information that proves parties conducting studies on vapor intrusion exposures must conduct sampling at deeper levels than were previously believed adequate.

The effort by New York to visit legacy sites comes as California Gov. Arnold Schwarzenegger's vetoed legislation in September that would have required the Cal/EPA toxics department and the state water and waste boards to create a comprehensive list of all the site in the state with known vapor intrusion haz-

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ards. Schwarzenegger said the legislation "may inadvertently stigmatize a site, delaying clean up and reuse" and that the "current site characterization and cleanup processes address all possible exposure pathways, including human health risk from vapor intrusion" (Superfund Report, October 9, p8).

(Superfund Report – 11/6/06)

ADULT BLOOD LEAD LEVELS DECLINING, SAYS NEW RESEARCH

The number of U.S. adults with elevated blood lead levels declined in 2003-2004 from previous years, according to new findings reported by the National Institute for Occupational Safety and Health (NIOSH) from data collected through the adult Blood Lead Epidemiology and Surveillance (ABLES) program. The program is funded by NIOSH and enhances health surveillance to identify elevated blood lead levels. The new findings were reported in Morbidity and Mortality Weekly Report (MMWR) for August 18. The full MMWR can be accessed at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5532a2.htm

BREAKING THE AGE BARRIER: NEW RESEARCH IN GROUND WATER QUALITY

Most people are familiar with the use of radio-carbon dating to place once-living objects in their historical period. In a parallel approach, National Risk Management Research Laboratory (NRMRL) hydrologists are pioneering the measurement of naturally occurring radioactive isotopes to determine the age (that is, the residence time) of ground water in support of watershed contamination studies.

While age-dating of young ground water (ground water that's less than 50 years old) is a frontier field in watershed studies, it has long been realized that very young ground water could be a more significant source of contamination than older water. This is true because a shorter residence time means that ground water moves "faster." Thus, contamination will get to the drinking well from the recharge area (point of entry) faster if the ground water is younger. However, it has been difficult to measure the exact age of young groundwater. The conventional indicator has been tritium, a radioactive form of hydrogen, but its usefulness has nearly ended because of a short half-life combined with its last significant input to the atmosphere from thermonuclear tests of the early 1950s. NRMRL isotope hydrologists believe that dissolved krypton gas (in the isotope form of 85Kr) may be the best indicator, among the other potentially useful isotopes tested, of young recharge water. 85Kr is ideal for several reasons:

- It has increased in precipitation since the 1950s at a relatively constant rate.
- It has an appropriately short half-life.
- It is almost uniformly distributed in the northern hemisphere.

Furthermore, because it is chemically inert, it retains its unique isotope characteristics while it decays as predictably as the unwinding of a clock. Until recently, the chief shortcoming of this method was the daunting task of collecting voluminous water samples to measure traces of the rare 85Kr isotope. Finally, a breakthrough in field collection and laboratory measurement has

permitted the new 85Kr isotope method to detect ground water as young as 2 years and as old as 50 years.

For the first time, the widespread economical use of the new 85Kr method has been applied to selected watersheds where elevated natural occurrences of arsenic and lead have prompted hydrologists to ask whether, and how, the ground water will flush these materials out over time. Recent research in Maine, for example, suggests that a vulnerability map can be plotted using the new 85Kr technique, either alone or through integration with conventional hydrology investigations. In cooperation with the State of Maine and rural ground water supply districts, NRMRL researchers are using this innovative approach to help diagnose prospective contamination areas so that water supply managers can effectively plan well fields to ensure a stable supply of clean drinking water.

Detailed information is available in: Sidle, W.C. 2006. "Apparent 85Kr Ages of Ground Water Within the Royal Watershed, Maine, USA." Journal of Environmental Radioactivity. 91:113?127.

(NRMRL News – 2/07)

HEATING HOMES, COOKING AFFECTS GLOBAL CLIMATE

Scientists using satellite data have tracked the path and distribution of aerosols - tiny particles suspended in the air - to link their region of origin and source type with their tendencies to warm or cool the atmosphere. Residential emissions were found to affect the climate more than previously thought.

By altering the amount of solar energy that reaches the Earth's surface, aerosols influence both regional and global climate. Their impact is difficult to quantify because most only stay airborne for about a week, while greenhouse gases can persist in the atmosphere for decades.

In a study published January 24 in the American Geophysical Union's "Journal of Geophysical Research-Atmospheres," researchers investigated the sources of aerosols and how different types of aerosols influence climate.

The industry and power sectors are particularly important in North America and Europe and produce large amounts of sulfur dioxide, while Asia has higher emissions from residential sources, which produce relatively more carbon-containing aerosols, the study found.

"Computer model simulations showed that black carbon in the Arctic, a potentially important driver in climate change, derives its largest portion from Southeast Asian residential sources," said Dorothy Koch, lead author and atmospheric scientist at Columbia University and NASA's Goddard Institute for Space Studies in New York.

"According to current model estimates, Koch said, "the residential sector appears to have a substantial potential to cause climate warming and therefore, could potentially be targeted to counter the effects of global warming."

The study also showed large amounts of aerosols containing organic carbon - which also tend to cool the atmosphere and partially offset the warming from greenhouse gas emissions - are produced by burning of vegetation.

Most of the world's biomass burning

emissions appear to come from Africa and next, from South America. But, precipitation removes a greater proportion of these aerosols from the atmosphere over Africa than over South America. As a result, more than half the biomass-burning aerosols in the Southern Hemisphere can be traced back to South America.

(ENS-1/30/07)

SCIENTISTS: RIDDING HOMES OF LEAD PAINT TAKES TOO LONG

The length of time it can take to rid homes of lead hazards is "unacceptable" according to researchers from Wake Forest University School of Medicine and colleagues in February's "American Journal of Public Health."

"This is the first study that looks at the time that it takes from a child's first blood lead level, BLL, test to the time when their home is made lead safe," said Kristina Zierold, Ph.D., lead author. "We knew there were a lot of kids with elevated BLLs, but nobody really knew how long it was taking to remove the exposure."

The study was conducted in Wisconsin while Zierold was an epidemic intelligence service officer with the Centers for Disease Control and Prevention.

"While our results apply only to Wisconsin, the fact that this was the first time anyone had studied this issue suggests that the problem may apply to other states," Zierold said.

An estimated 24 million housing units nationwide contain this poisonous material.

The U.S. Environmental Protection Agency reported in 1995 that 86 percent of all public housing and 83 percent of private homes had some lead-based paint.

The research evaluated 382 Wisconsin children aged six months to six years during a four year period, 1996 - 1999, with BLLs of 20 micrograms per deciliter ($\mu\text{g}/\text{dL}$) or greater.

In Wisconsin, these levels required a lead hazard investigation of children's residences. The median length of time it took to eliminate the lead exposure was 465 days. Overall, only 18 percent of homes were completed within six months, and 46 percent required more than 18 months to be considered lead safe.

The study did show some improvement. The median amount of time it took to remediate a lead problem in 1996 was 828 days, and 347 days in 1999.

Researchers also found that African-American children were almost twice as likely as other races to live in homes taking longer than six months to be made lead safe. Zierold said a possible reason for the difference is that many of the African-American children in the study lived in rental housing. "Rental housing is a big indicator of lead poisoning because it's up to the landlord to take care of the lead hazards in the house and not the resident. And many times, the money is not there to fix up the property," said Zierold.

Zierold says the most common form of lead exposure in children is through hand and mouth contact. Lead-based paint flakes off walls, windows and doors, and then children pick up the flakes on their hands while crawling on the floor. "Often you'll see kids chewing on lead paint because it's sweet," said Zierold.

Once ingested, lead can have detrimental effects on a child's IQ and cause cognitive

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impairments and hearing and behavioral problems. High levels of exposure for long periods of time can cause convulsions, and in extreme cases, lead poisoning can result in death.

(ENS – 2/5-07)

SCHOOL DISTRICTS DISCOVER HOW TO ADDRESS MOLD

Just as teachers and school administrators are learning to deal with new issues such as the standards of learning and “no child left behind” programs, school districts are also learning to address mold – before it happens. Some districts around the country are incorporating environmental specialists into their facility staff.

Paul Duerre, CIE, an environmental specialist for the Killen Texas, Independent School District, has handled indoor air quality (IAQ) issues for approximately 50 campuses since 1993. Paul Strauss is the environmental manager of the Environmental Control Office (ECO) for the Palm Beach County, Fla., school district (PBCSD).

Environmental specialists say the key to keeping their schools mold-free is spending more time on preventive maintenance than on reactionary cleanup. According to Duerre, it’s all about keeping a watchful eye on the state of the buildings.

There are few areas on which Duerre recommends focusing closely. Roofs are one trouble-causing area. “Don’t wait until it’s totally falling apart,” says Duerre. “That’s what we’ve gone through and done.” He says his district has set up a system where they check the roofs thoroughly every two to three years, and replace them as needed. He adds that it is important to know when replacements will be due so they can be put into the budget up front.

Strauss says, “The district recently initiated a building envelope maintenance program to address building shell maintenance items including roofs, window assemblies, wall and floor construction joints.”

Duerre adds, “We’ve updated our HVAC systems extensively throughout the district – one for energy savings, the other one to make sure we’re heating and cooling correctly.” Duerre warns that one of the big mold-causing problems he runs into is buildings being retrofitted with HVAC systems that weren’t designed for them. In addition to preventative maintenance, preventative design is becoming more important in school construction. It’s not uncommon for relatively new school buildings to develop substantial mold problems, and that’s a problem that needs to be addressed during the design process. The Environmental Protection Agency (EPA) has addressed the importance of dry design with a new informational tool called the IAQ Design Tools for Schools program (based on its original Tools for Schools program, discussed below). The guide features a section specifically on moisture control, with introductions to some of the key areas that can contribute to future mold problems.

Financial resources available can be another major problem for school districts. When teachers in some districts are left responsible for buying basic supplies for their classrooms, it’s evident that maintenance is not going to be at the top of the list of priorities. “In some cases, budget

restrictions also play a role in the maintenance and up-keep of school buildings,” says Strauss. “Budget restrictions sometimes hamper school districts’ ability to properly maintain and clean school buildings.” “If you can do preventative maintenance you can prevent most of the factors that lead to mold,” says Duerre. He adds, “I don’t think that’s going to happen quite yet till people understand the maintenance budget is not the first thing that gets cut.”

Part of alleviating the fear about mold for parents and staff is to address a problem immediately and to make sure that there is a set course of action to take. “Parents usually call their campus and talk to the principal and then, in turn, get together with the teacher or principal and put a work order into me,” says Duerre. “Maintenance staff usually calls me directly and say ‘we found something, can you check this out?’” Like Duerre’s computerized work order system, which has a special section for IAQ systems, Strauss also logs into a central database all concerns and complaints, along with a description of the issue and facility contact information. The complaint is issued a log number, and then a staff member is assigned to investigate. “Typically, a site visit is necessary and generally takes place within four days of the initial call,” adds Strauss.

Following the investigation, Strauss prepares a report to present finding and recommendations for corrective action. One of the big pieces of advice these professionals offer when it comes to addressing potential mold problems in schools is communicating clearly with the parties involved about any potential problems. “Education and communication are key to any successful IAQ program,” adds Strauss. “Address problems promptly, document your actions thoroughly, communicate effectively with all affected parties and IAQ issues need not escalate. Many IAQ issues can be resolved easily and inexpensively if identified early and corrected quickly.”

But if a problem is found, John Mazur, a MACTEC consultant advises, “First of all you have to find out what type of mold growth it is. Some species are considered to be more hazardous than others. You need to identify what type of mold it is and what the risk is to the school.” For the next step, he says, “you should call someone who is an experienced indoor air quality professional and has mold expertise.” Duerre agrees, “The biggest thing is finding the source of the problem,” he says.

(Mold & Moisture Management – 11/12/06)

MERCURY HOT SPOTS DETECTED IN EASTERN U.S. AND CANADA

U.S. sources of mercury emissions, particularly coal-fired power plants, are the major cause of five biological mercury hotspots identified in New England, New York and Nova Scotia, according to two new scientific studies.

The findings indicate the U.S. Environmental Protection Agency, EPA, is greatly underestimating local and regional impacts of mercury emissions, but also show that mercury levels in fish and wildlife can decline when airborne mercury emissions from nearby sources are decreased.

Published in the January issue of “BioScience,” the two new studies are part of a three year research effort coordinated by the Hubbard Brook Research Foundation, HBRF.

“There is still a lot that we don’t understand about mercury, but it is clear that biological mercury hotspots occur and that mercury emissions from sources in the U.S., as opposed to China and other countries overseas, are the leading cause,” said Charles Driscoll, a Syracuse University environmental systems engineering professor and a principal investigator with Hubbard Brook.

The five hotspots identified by the 11 member research team include the west and central Adirondack Mountains in New York, the upper Connecticut River in New Hampshire and Vermont, the lower and middle Merrimack River in New Hampshire and Massachusetts, the upper Androscoggin and Kennebec rivers in Maine, and central Nova Scotia.

In addition, the researchers, who analyzed mercury levels in fish, birds and mammals, identified nine other suspected hotspots in New England and southeastern Canada.

Analysis of mercury deposition patterns around the hotspot in southern New Hampshire and northeastern Massachusetts found that local emission sources – four coal-fired power plants – contribute 65 percent of the mercury deposited in the environment.

The researchers estimated the mercury deposition in this hotspot is 10 to 20 times higher than pre-industrial conditions and five times higher than EPA estimates.

“Our modeling results support a growing body of evidence that a significant fraction of the mercury emitted from coal-fired power plants in the U.S. is deposited in the area surrounding the plants,” said Thomas Holsen, a civil and environmental engineering professor at Clarkson University in New York and co-author of the studies.

The new research contradicts the Bush administration’s contention that mercury deposition and contamination is driven by global emissions of the toxic metal – a major reason cited by officials when they finalized the mercury emissions trading program in March 2005.

(by J.R. Pegg – ENS – 1/9/07)

PITT TEAM DEVELOPS A SURFACE UNFRIENDLY TO MOLD

Alan J. Russell, University of Pittsburgh professor of chemical and petroleum engineering and director of Pitt’s McGowan Institute for Regenerative Medicine, has led a team in developing coatings that prevent mold growth. The technology could be used in mold-repellent mixtures and coatings to protect everything but bread.

The Mascaro Sustainability Institute, created at Pitt as a center of excellence in sustainable engineering, does research on built environments and sustainable use of water. Co-director Gena Kovalcik said MSI researched the financial impact of mold, then approached Dr. Russell with a \$110,000 research grant because of his work in developing anti-bacterial surfaces.

Claiming to have “scientific attention deficit disorder,” Dr. Russell undertook the mold challenge: “We weren’t limited by knowledge or expertise, so we gave it a go,” he said.

In due time his team overcame the challenge.

With help from Pitt experts who create innovative polymers, his team developed a hairy poly-

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mer surface that causes mold's filaments, known as mycelia, to explode before they produce spores.

The method reduces to a basic biophysical process: The hairy polymer carries a positive charge. After a few intermediate processes, the negatively charged mold couples like a magnet with the positively charged polymer. That's when the polymer's spray of ions pops open the membrane of the mold's mycelia, making it impossible to produce spores.

To date, Dr. Russell and crew have produced two types of mold-popping polymers. One repels water and the other is water soluble. Both restrict spore production in a battle of filaments: polymer hairs vs. mycelia.

Dr. Russell's crew tested its polymers on wood soaked in potato broth, which produces a circus of molds. Tests showed success. Wood covered with the polymer developed no moldy spots.

"We were so thrilled when Alan decided to look into it and test the theories he has," Ms. Kovalcik said. "We're excited because this is something with a real-world impact."

She said MSI is now working to find companies interested in using the technology in the construction industry.

(By David Templeton, *Pittsburgh Post-Gazette* – 1/24/07)

INCREASED HEART RISK LINKED TO AIR POLLUTION

Breathing common urban air pollution is much more deadly than previously thought, according to a major study published in the February 1 New England Journal of Medicine. The study, which followed 58,600 postmenopausal women for seven years, found the added risk of cardiovascular death from living in the most polluted areas including Cincinnati and Riverside, California, was roughly 150%. Breathing air heavily polluted by soot from automobiles and power plants may raise the risk of death for older women at nearly the same rate as smoking cigarettes. The study focused on the most deadly kind of soot, known as fine particulate matter, which comes from burning fossil fuels like gasoline, diesel fuel and coal.

Previous studies had concluded the risk was much lower. That research found that soot was responsible for increasing deaths from heart disease and stroke in the most polluted cities by about 40% over the least polluted, such as Santa Fe and Honolulu. That impact is comparable to the relatively consistent inhalation of second-hand smoke that comes from living with a smoker.

In the new study, the approximate 150% increased risk is close to the impact of being an active smoker, said C. Arden Pope, a professor at Brigham Young University who played a role in the two previous major U.S. soot studies but was not involved in the study published today. "It's stunning," Mr. Pope said.

Each increase of fine soot levels by 10 micrograms a cubic meter is associated with an increased risk of cardiovascular death of about 76%. For example, on average, women in Nashville, Tennessee, where the 2005 level was 15 micrograms, would have an approximately 76% greater chance of dying from cardiovascular causes than women in Honolulu, Hawaii, where

the 2005 level was five micrograms.

The findings may lend more ammunition to those who want the Environmental Protection Agency to lower the legal limit for fine particles in the air, said Rogene F. Henderson, a pollution expert who heads the agency's outside panel of scientists. The current limit was set in 1997 at an annual average of 15 micrograms a cubic meter.

(by Keith J. Winstein, *Excerpts from Wall St. Journal Article* – 2/1/07)

CONTAMINANTS IN CHESAPEAKE BAY SEDIMENTS MAPPED

The major portion of the Chesapeake Bay, called the mainstem, has minimal sediment contamination but major western tributaries of the bay show elevated contaminant levels, according to new research by the National Oceanic and Atmospheric Administration, NOAA.

Toxic contaminants enter the bay from rivers and streams as well as from windblown dust, stormwater runoff, spills and direct discharge.

Researchers from the NOAA National Centers for Coastal Ocean Science collected sediment samples from the Chesapeake Bay between 1998 and 2001 to determine where and how severely the sediments are contaminated by toxic chemicals.

The comprehensive contaminant report, "Magnitude and Extent of Contaminated Sediment and Toxicity in Chesapeake Bay," covers the entire mainstem of the Chesapeake Bay, along with its major western tributaries - the Patuxent, Potomac, Rappahannock, York and James rivers.

"NOAA shares in the widespread public concern that the ecological functions of the bay are becoming impaired and that has the potential to impact human health," says John Dunnigan, director of the NOAA Ocean Service.

"Understanding the impacts and sources of contaminants to the nation's largest estuary is part of a long-term commitment to understanding the bay's ecosystem."

NOAA's study examined a variety of toxic contaminants found in Chesapeake Bay, including metals, polychlorinated biphenyls (PCBs), persistent chlorinated pesticides and polycyclic aromatic hydrocarbons (PAHs) - and the organisms exposed to them.

In addition to contaminant hot spots in Baltimore and Norfolk harbors, contaminants accumulate in the Susquehanna Flats and the deep trough areas west of Kent Island and south of the Chesapeake Bay Bridge, the researchers found.

The Hart Miller Island area, where dredge spoil from Baltimore harbor and its approach channels are deposited in a containment facility, shows metals at higher concentrations than at other locations in the mainstem.

The study also found benthic species richness, abundance and diversity went down as contamination levels and toxicity increased.

(*ENS* – 1/23/07)

MOLD IN WOOD – WHO IS TO BLAME?

Juries have awarded millions of dollars in mold cases. Plaintiffs have received awards as high as \$32 million. With mold-related lawsuits on the rise, lumber dealers, builders and framing contractors need to properly store their lumber,

so they aren't accused of being part of the mold problem.

According to information from the southern Pine Council of Kenner, LA, "Molds are fungi; ubiquitous organisms that (under proper conditions) can grow on organic matter. Surface molds, which can come from a variety of sources including airborne spores, feed off the sugars and starches readily available in wood."

It's not surprising to find mold on lumber in lumberyards or jobsites, but then the question becomes, "Who is to blame?"

Susan Raterman, a certified industrial hygienist and president of The Raterman Group Ltd. of Chicago, gives the following advice:

"There are some simple steps that can be taken to prevent mold growth on lumber during storage and construction, starting at the lumberyard. Wood and wood products should be stored under cover in a dry location. Product should be inspected before it leaves the yard to assure that moldy lumber is not being sent to the customer. To reduce claims, prudent lumber dealers have a program of mold inspection and cleaning prior to delivery of lumber," Raterman says.

"We suggest dealers and distributors use moisture meters to spot-check their product when it's delivered. It's the option of the dealer to return the lumber (speaking of Southern yellow pine) if it is over 19 percent moisture content." Kleiner says.

When the lumber is delivered to the jobsite, Kleiner says the lumber pack should be raised above ground four inches, so the lumber isn't in contact with moist earth. He also says it should be protected with some kind of material like a tarp, but something that is breathable.

John Halleland is president of Story City Building Products of Story City, Iowa. His company stores most of its lumber inside or on full pallets that are paper wrapped and under a roof overhang.

He says the mill from which he buys his lumber wraps it before shipping, and covering his lumber adds about \$7 per 1,000 board feet to the cost of the lumber.

"I think the most important thing is to buy the lumber dried to 19 percent or less and to keep it protected from the weather," says Halleland. "Very humid locations make mold a much more serious problem than what we have in the Midwest. Buying lumber 'green' or not dried is an invitation for problems."

Some lumberyards, dealers and distributors not only cover their lumber, but they also treat their lumber with mold-resistant preventatives.

Even with numerous products available designed to prevent mold on lumber – and more importantly, growing awareness that mold could cause a problem for the builder, or the homeowner, down the road – it is still not unusual to see dark spots growing on lumber sitting on a jobsite or framing a house.

"In my experience it is not uncommon to find some mold growth or dark staining on new lumber and wood products in the majority of construction sites," says Raterman. "I have been involved in some projects where a homebuyer will walk toe construction site, discover moldy lumber and refuse to move forward with the purchase until the wood is replaced or the mold is remediated. In other cases the used moldy lum-

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ber has resulted in seven-figure remediation and rebuilding costs. Responsibility for remedial action often falls on the lumber dealer.”

But what lumber dealers, contractors and builders do when they receive moldy lumber from their suppliers?

Patel says that his company usually sends bad wood back, which tends to upset the lumberyards.

James Price, president and owner of Price Construction in Beaverdam, VA, says that he sees moldy lumber all the time.

“If you have wood that’s moldy, visibly moldy that is, then, yes, at some point you let it dry out as much as you can, and once you’re ‘under roof,’ you spray it with bleach in a garden sprayer and kill it, then let it dry completely,” he says.

In a perfect world, all lumberyards would check lumber for moisture content when delivered, they would cover their lumber in their yards, they would cover their lumber during delivery and at the jobsite, and builders and contractors would keep the lumber covered and out of the elements.

“What you have to remember is – you’re not shipping things to a grocery store, in a conditioned vehicle and into a perfectly conditioned space,” says Price. “Sure, you get lumber delivered to a jobsite that’s wet, or it gets wet once it’s on the jobsite, but what are you going to do? Tell builders “You can’t use this wood until the ground moisture level is below blank and humidity levels are below blank and the wood has completely dried out? You just can’t hold up the construction process like that.”

Kleiner concurs with Price. “You should use the lumber and enclose the structure as quickly as possible to minimize exposure. There is a phenomenon called blue stain, which some consumers think is mold [but isn’t]. Both mold and blue stain affect the color of wood, but neither have an effect on the strength or durability of the lumber,” he says.

Price says even if lumber companies were to deliver lumber in heated and cooled containers, it’s still going to get exposed to the elements on a jobsite.

“You would have to keep it in a conditioned space all the way up to the time you use it, but even then, you don’t start under roof and, more often than not, it’s going to rain at some point. If nothing more, condensation from the air is going to gather on it,” he says.

Rateman says the best advice she can offer lumber dealers to reduce their exposure to liabilities surrounding mold is to develop a written mold and moisture control plan, train their staff and put the plan into action.

“The plan should address proper storage of wood products, quality control inspection procedures, how to detect mold, how to remove mold, when to get expert advice and what to do when moldy lumber is mistakenly distributed to customers,” she says. “Secondly, educate your partners – the builders. Not all mold problems in a building are caused by moldy lumber and the challenge of controlling moisture does not begin or end with just using dry materials.”

(By Samantha Carpenter, Excerpts from *Mold & Moisture Management Magazine* – 12/07)

REVITALIZING AMERICA’S MILLS: A REPORT ON BROWNFIELDS MILLS PROJECTS

This U.S. EPA report highlights examples of successful mill redevelopment, identifies common challenges, describes innovative solutions, and suggests tools and resources available to assist in mill redevelopment (November 2006, 32 pages). View or download at: www.epa.gov/docs/swerosps/bf/policy/Mill_Report_110306.pdf. (EPA 560-R-060001).

PHILADELPHIA COMPANY OFFERS MOISTURE AND VAPOR REDUCTION PRODUCTS

Vexcon Chemicals offers a line of products which provide Mildew, Algae, Bacterial and Moisture Protection of Adhesives. Products include:

MOISTUREBLOC®EMULSION ONE STEP provides a quick, easy to use and economical solution to preventing floor covering adhesive failure due to moisture. Independent testing confirms the product promotes resistance to mildew, algae and bacteria. The combination of reduced moisture vapor transmission and a film that is resistant to growth of mildew, algae and bacteria reduces problems under floor coverings.

The system is based on unique technology of a breathable coating with excellent adhesion to concrete. MoistureBloc Emulsion One Step will protect adhesives from moisture vapor and alkali degradation.

MOISTUREBLOC®EMULSION VAPOR REDUCTION PRIMER STEP 1

is part of Vexcon’s MoistureBloc Emulsion Vapor Reduction System, which provides an economical solution to preventing floor covering adhesion failure due to moisture. This system is designed to reduce moisture vapor emission rates ranging from 12-15/# readings to below 3#/1000 sq.ft./24 hrs, approximately 75%-85% based on ASTM E-1907 (ASTM F1869), or more depending on temperature, humidity, groundwater levels and rainfall amounts. MoistureBloc can be applied to existing and new concrete surfaces curing the concrete and protecting the flooring for a quick and easy installation. A concrete slab, which exhibits high moisture emission results per ASTM E-1907 (ASTM F1869) Calcium Chloride Test (greater than 3.0#/1000 sq.ft./24 hrs.) is coated with **MoistureBloc Emulsion Vapor Reduction Topcoat Step 2**, which improves floor covering adhesion.

MOISTUREBLOC®EMULSION VAPOR REDUCTION TOPCOAT STEP 2

is part of Vexcon’s MoistureBloc Vapor Reduction Systems, which prevent carpet, tile and wood flooring adhesion loss due to moisture. This system is guaranteed to reduce moisture vapor emission rates to below 3#/1000 sq.ft./24 hrs by approximately 75%-85%, based on ASTM E-1907 (ASTM F1869), or more depending on temperature, humidity, groundwater levels and rainfall amounts. The product is designed for use over **MoistureBloc Emulsion Vapor Reduction Primer Step 1** see product data sheet #CP115A. It provides an excellent base coat for paints or tile and carpet adhesives meeting the requirements of

ASTM C 1315. MoistureBloc Emulsion Vapor Reduction Primer Step 2 is an effective alkali blocker on concrete that will subsequently have an adhesive applied. Resilient and ceramic tile, which is applied over MoistureBloc Emulsion Vapor Reduction Topcoat Step 2, has greater adhesion to the MoistureBloc than to bare concrete. MoistureBloc Emulsion Vapor Reduction Topcoat step 2 protects adhesive from moisture vapor emissions.

MOISTUREBLOC®EMULSION VAPOR REACTIVE TOP COAT STEP 3

is part of Vexcon’s MoistureBloc Vapor Reduction Systems, which provides an economical solution to preventing floor covering adhesion failure due to moisture. This system is designed to reduce moisture vapor emission rates ranging from 12-15/# readings to below 3#/1000 sq.ft./24 hrs, approximately 75%-85% based on ASTM E-1907 (ASTM F1869), or more depending on temperature, humidity, groundwater levels and rainfall amounts. The product is designed for use over **MoistureBloc Primer Step 1** see product data sheet #CP115A, when reactive adhesives such as urethane or epoxy are used. MoistureBloc Emulsion Vapor Reactive Topcoat Step 3 cures into epoxy and urethane adhesives making a continuous adhesive layer. Resilient and ceramic tile, which is applied over MoistureBloc Step 3, has greater adhesion to the MoistureBloc than to bare concrete. MoistureBloc Emulsion Vapor Reactive Topcoat Step 3 protects adhesive from moisture vapor and alkali degradation. MoistureBloc Emulsion Vapor Reactive Topcoat Step 3 can be used with reactive and non-reactive adhesives.

Another line of Fast Track (FT) products are available, and, an MX liquid membrane forming, curing and sealing compound is also available. With the current focus on preventing moisture intrusion and controlling vapors, increased use of these important products will undoubtedly occur. For more information, contact Vexcon Chemicals, Inc., 7240 State Road, Philadelphia, PA 19135, 215-332-7709 or 888-839-2261, Fax: 215-332-9997. www.vexcon.com

FAMILY WINS \$780,000 FOR MOLD IN APARTMENT; VERDICT IS APPARENTLY A RECORD

Virginia Lawyers Weekly

A Richmond Circuit Court jury has awarded \$780,000 to a family who contended that they were injured by toxic mold in a Norfolk apartment. Thomas and Rose Odaris first complained to Morton G. Thalheimer Inc., the manager of Riverpoint Apartments, in October 2002 when they saw water stains and small growths of mold on their ceiling, according to their attorney, David S. Bailey of Richmond. Bailey said he believes the award is the largest in the state for exposure to toxic mold.

(*IAQA Digest* – 2/7/07)

MOLD GROWTH ON WET GYPSUM WALLBOARD – A CONTROLLED STUDY

A study in the *Journal of Occupational and Environmental Hygiene* examines the basis for some common gypsum wallboard mold remediation practices. Researchers were interested in

TECHNOLOGY UPDATES (Continued)

answering five questions: (a) whether mold growth, detectable visually or with tape lift samples, occurs within 1 week on wet gypsum wallboard; (b) what are the types, timing, and extent of mold growth on wet gypsum wallboard; (c) whether mold growth is present on gypsum wallboard surfaces 6 inches from visible mold growth; (d) whether some commonly used surface treatments affect the timing of occurrence and rate of mold growth; and (e) simple methods and then sealed with common surface treatments so that residual mold particles are undetectable with typical surface sampling techniques.

Researchers set about answering these questions by immersing the bottom inch of several gypsum wallboard panels in bottled drinking water, coating some of the panels and leaving the others untreated. The panels were then examined and tested for a period of 8 weeks.

Mold growth was not detected visually or with tape lift samples after 1 week on any of the wallboard panels, regardless of treatment, well beyond the 24-48 hours often mentioned as the incubation period. Growth was detected at 2 weeks on untreated gypsum. *Penicillium*, *Cladosporium*, and *Acremonium* were early colonizers of untreated panels. *Aspergillus*, *Epicoccum*, *Alternaria*, and *Ulocladium* appeared later. *Stachybotrys* was not found.

Mold growth was not detected more than 6 inches beyond the margin of visible mold growth, suggesting that recommendations to remove gypsum wallboard more than 1 foot beyond visible mold are excessive. The surface treatments resulted in delayed mold growth and reduced the area of mold growth compared with untreated gypsum wallboard. Results showed that simple cleaning of moldy gypsum wallboard was possible to the extent that mold particles beyond "normal trapping" were not found on tape lift samples. Thus, cleaning is an option in some situations where removal is not feasible or desirable.

Researchers concluded that in cases where conditions are not similar to those of this study, or where large areas may be affected, a sample area could be cleaned and tested to verify that the cleaning technique is sufficient to reduce levels to background or normal trapping. These results are generally in agreement with laboratory studies of mold growth on, and cleaning of, gypsum wallboard.

For more information, visit :
["http://ujoeh.metapress.com/"](http://ujoeh.metapress.com/) <http://ujoeh.metapress.com>

(In the Air, IAQA, 11/07)

GEOTEXTILE BIOFILTERS – A NEW OPTION FOR THE TREATMENT OF SEPTIC EFFLUENT CEVAT YAMAN, PH.D.

Introduction

Infiltration of septic effluents generally produces some degree of clogging due to growth of biomass. Therefore, groundwater protection and hydraulic performance should be improved by removal of biodegradable constituents before reaching the soil infiltration surface.

A common observation that microorganisms colonize geotextiles in subsurface landfill drain filters presented an opportunity for the treatment

of septic effluents. Geotextiles are mainly used to serve filtration, separation, transmission and reinforcement functions in infrastructure projects (Koerner, 2005). The use of geotextiles as biofilters for biological treatment is a novel idea. The goal is to develop a compact system with a high sustainable hydraulic capacity that would produce effluent suitable for groundwater discharge. One likely application is to onsite wastewater treatment and disposal systems, which serve about 25% of the nation. The important design parameters are hydraulic loading rate (HLR), local temperature, five-day biochemical oxygen demand (BOD₅), NH₃ and TSS (total suspended solids) concentrations, and, most importantly, selected geotextile properties such as AOS (Apparent Opening Size), fabric weight, and the geotextile type, woven or nonwoven.

Septic Systems

In a typical new septic system, the effluent is pumped up to the infiltration surface to provide the required water table clearance. The additional components are a pump placed in a wet well that accumulates tank effluent between pump cycles. The pumping system is often designed to distribute effluent in controlled volumes that not only assure uniform distribution, but also flood the coarse aggregate distribution layer to a known depth in each dose. This forces substrate and biomass to distribute vertically, and draws air into the subgrade at each drainage cycle, i.e., a pressure dosing system.

Septic tank effluent has low dissolved oxygen (DO). Thus, it is difficult to reach secondary treatment levels in the leaching field unless the HLR is low and oxygen can be supplied. With continuous flow, the model for a gravity septic system, the subgrade below the infiltration system re-aerates only by diffusion. This requires that the soil be unsaturated and have access to the atmosphere. In buried filters, the covering topsoil can reduce air diffusion into the aggregate layer, especially during wet or freezing weather conditions. Filter surfaces exposed to air circulation, as in buried chambers, offer better oxygen supply. However, when flooding continues for several hours, air diffusion stops. Allowable flow rates and application intervals are thus limited to maintain a low degree of saturation under the infiltration surface.

Design of the Geotextile Biofilter

A mounded geotextile biofilter is proposed to treat septic effluent of a single house. The design flowrate for septic effluents is based on either the number of people living in the house or the number of bedrooms. In most states it is common to use a design flowrate of 150 gal/day/bedroom.

For the geotextile biofilter, total thickness of 24 inches (2 ft) treatment unit is selected (12 inches of gravel and 12 inches of coarse sand). This treatment unit will include two layers of nonwoven geotextile. The upper geotextile is placed in the gravel layer and the lower geotextile is placed over the coarse sand layer. The gravel layer provides even wastewater distribution over geotextile and captures coarse particles. The coarse sand layer beneath the lower geotextile is assumed to be permeable enough to distribute the effluent to groundwater without

causing any mounding.

It is suggested that periodic filter performance should be monitored by performing permeability tests on the geotextile biofilter. If the residual permeability of the system indicates severe clogging, the geotextile should be either replaced with a clean one or the system should be back-washed. Piping can be installed to facilitate back-washing.

The geotextile biofilter should run under favorable operating conditions in terms of producing the desired effluent quality and minimizing the potential for clogging by biomass accumulation. In effect, the latter involves finding the substrate (food) to biomass ratio (F/M ratio) that would maintain active microorganisms in an endogenous, near starvation condition, and thus minimize accumulation of undecomposed organic material. The geotextile biofilter design is such that it will be very easy to replace the geotextile filter if it fails to perform in the system. Geotextiles offer promise to make septic systems more efficient.

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RT REVIEW HELPS REDEVELOPMENT ECONOMICS

Many people contemplating redevelopment don't know of available tax deductions. See the article on page 13 for the latest federal tax deduction update. Two PA redevelopment projects we have helped with in Chester County would not have happened had the redeveloper not taken advantage of \$800,000 worth of available tax deductions.

See our web page for more details at: www.rtenv.com

FEDERAL REGULATORY UPDATES

DEMOCRAT PUSH TO EXPAND EPA LEAD PAINT RULE SEEN IN NEXT CONGRESS

Key Democrats will likely push to expand a controversial EPA rule intended to limit children's exposures to lead during renovation and repair of lead-contaminated buildings when their party assumes control of Congress next year, activists say.

Environmentalists note that Democratic lawmakers poised to assume control over panels with oversight of EPA, including Sen. Barbara Boxer (CA), Sen. Frank Lautenberg (NJ) and Rep. Henry Waxman (CA) earlier this year submitted comments calling on EPA to expand the rule to cover childcare facilities and prohibit unsafe work practices that are currently prohibited in existing Department of Housing & Urban Development regulations. In addition, the Democrats argued training requirements in the rule should extend to all workers at a job site. The current proposal only requires that supervisors receive training.

At issue is EPA's lead renovation, repair and remodeling rule (RRP), which the agency proposed in January 2006 following pressure from Democrats, including Illinois Sen. Barack Obama. A 1992 amendment to the Toxic Substances Control Act (TSCA) required EPA to issue the rule by 1996, but the agency had still not acted by 2005, prompting Obama to hold up EPA Deputy Administrator Marcus Peacock's nomination. Peacock pledged during his July 2005 confirmation hearings to issue the rule by the end of 2005.

With the Democrats poised to take control of Congress next year, an activist source says it is likely there will be increased attention to the rule, noting the current republican Congress has paid little attention to the proposal. A Senate Democrat source says Boxer will likely take the lead on the issue in the next Congress at the incoming chair of the Senate environment & Public Works Committee, noting that Obama is leaving the panel. The activist source notes however that Obama is likely to show a continued interest in the rule because Chicago has some of the worse lead paint contamination in the country.

The lawmakers' offices did not respond to requests for comment.

Environmentalists, who are also pushing for EPA to extend the rule to child-occupied facilities such as daycare centers and schools, are encouraged EPA is seeking to include those types of structures as part of an ongoing study the agency is conducting on lead dust levels associated with lead paint renovation, an activist source says.

A flier EPA and its contractor Battelle distributed to property owners says, "EPA is interested in characterizing dust lead levels (low, medium, and high) associated with RRP activities on the interior and exterior of residential housing units and other types of buildings where children under six would regularly be present (such as vacant daycare centers, etc.)."

(Superfund Report – 12/4/06)

REVISIONS TO EPA ASBESTOS BRAKE GUIDE FACE CONGRESSIONAL SCRUTINY

EPA is facing a Government Accountability Office (GAO) investigation and Democratic

oversight hearings into how it and other federal agencies made controversial revisions to a guide on asbestos dangers for auto mechanics.

The effort will likely be part of a renewed oversight push on asbestos issues when Democrats take control of Congress next year, House and Senate sources say, which could include increased safety asbestos warnings for workers and a ban on the toxin.

The investigation, which is "still in the very initial stages," according to a GAO spokeswoman, will examine the role of EPA, the Occupational Safety & Health Administration (OSHA) and the White House Office of Management & Budget (OMB) in the recent release of two separate guidance documents aimed at reducing auto mechanics' exposure to asbestos contained in brake and clutch pads.

The documents, a draft brochure titled Current Best Practices for Preventing Exposure Among Brake and Clutch Repair Workers, which EPA proposed August 24, and a Safety and Health Information Bulletin (SHIB) titled Asbestos-Automotive Brake and Clutch Repair Work, which OSHA released July 25, are the culmination of a 2003 Data Quality Act petition filed with EPA by an industry law firm that alleged the agency's existing guidance on the issue created liability for industry.

Industry wanted the EPA guidance – known as the Gold Book – withdrawn without a replacement, but Sen. Patty Murray (D-WA) prompted the agencies' release of the new guidance documents by placing a hold on the nomination of Stephen McMillin for deputy director of OMB, according to a Senate Democratic source.

Reps. David Wu (D-OR), the ranking member on the House Science Subcommittee on Environment, Technology & Standards and Major Owens (D-NY), the ranking member on House Education & Workforce Subcommittee on Workforce protections, requested the GAO investigation in order to find out why the release of the documents was delayed, and what role OMB and the two agencies played in the delay, a House Democratic source says. "[T]here was a lot of politicking behind the scenes," the source says.

Wu and Owens initially requested the investigation in a May 4 letter to GAO, but the investigation was delayed due to a lack of cooperation on behalf of EPA, the House Democrat says. A GAO source acknowledges "it's taking longer than usual" to obtain information relative to the investigation from the agency.

EPA could not be reached for comment.

(Superfund Report – 12/4/06)

SAP CRITIQUE RAISES BAR FOR EPA ADVICE ON SEALING ARSENIC-TREATED WOOD

EPA's Scientific Advisory Panel (SAP) is criticizing agency efforts to use two government studies to develop a recommendation on whether using sealants could limit exposure to arsenic from a controversial wood preservative, a move that industry officials say likely makes it difficult for the agency to encourage use of the sealants.

Industry officials fear that a strong EPA recommendation to seal wood treated with the preservative, known as Chromated Copper Arsenate (CCA), would undermine their

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arguments that the chemical poses little health risk to the public, an argument activists say is critical to industry defenses in potential toxic tort litigation.

At a November 15-17 meeting, SAP members echoed industry arguments that exposure studies by EPA and the Consumer Product Safety Commission (CPSC) appear insufficient to issue a recommendation on whether certain sealants, such as paints or stains might reduce exposure to arsenic dislodged from wood products.

The panel seems unlikely to encourage EPA to recommend sealants be used to reduce arsenic exposure in its final report, according to an industry official. The panel agreed with many of industry's concerns with the studies, the official says, and in some cases went beyond industry's criticisms, which may make it difficult for EPA to issue a strong recommendation arguing that sealants reduce arsenic exposure on CCA-treated wood.

EPA officials at the meeting also appeared unwilling to support a strong recommendation, instead indicating that they may recommend what types of sealants a consumer might apply if he or she is concerned about exposure, as well as how often to apply sealant.

"There's a wide range in the abilities of coatings to reduce dislodgeable arsenic," said Mark Mason, from EPA's Office of Research & Development, in a presentation at the meeting. "If someone is concerned about exposure and uses a coating to reduce dislodgeable arsenic, they're going to have to have an annual recoat."

But Mason stopped short of saying sealants should be applied to reduce potential exposure.

Industry has phased out use of CCA in response to public concern over arsenic exposure. But many decks, playgrounds and other wood structures in the United States have been treated with the compound, and environmentalists argue that arsenic exposure is a continued potential liability concern for industry.

As part of ongoing efforts to consider potential arsenic exposure, EPA asked the SAP to review two government studies on whether wood sealants could reduce potential arsenic exposure.

The studies, funded by EPA and the CPSC, indicate that applying certain sealants – such as deep-penetrating oil or water-based stains – may reduce arsenic exposure. The results sparked industry concern that EPA, which is finalizing a report based on the studies, would call on consumers to apply sealant to wood treated with CCA.

The Wood Preservative Science Council (WPSC), a trade association of wood preservative manufacturers, argues that arsenic exposure from wood is minimal and presents no public health concern. WPSC also says and EPA recommendation to apply sealant to reduce exposure

FEDERAL REGULATORY UPDATES (Continued)

would raise “undue public alary” about unrealistic risks.

Wood Preserver industry officials say EPA presentations at the meeting have eased their concerns because agency officials indicated they may not pursue a strong recommendation to coat wood with a sealant. Instead, EPA may simply recommend consumers apply certain sealants each year if they are concerned about exposure.

Industry officials say the SAP appears to back the manufacturers’ concerns, with some panelists arguing it is ambitious to form recommendations for the ability of sealants to reduce exposure based on the studies.

PROVISIONS IN THE TAX RELIEF AND HEALTH CARE ACT OF 2006 AFFECTING BROWNFIELDS REMEDIATION COSTS

The “Tax Relief and Health Care Act of 2006” (the “Act”) was passed by the House and Senate on December 8 and 9, respectively, and signed into law by President Bush on December 20. The Act contains energy tax credit provisions, provisions to expand health savings accounts, and a host of other targeted tax incentives. Additionally, the Act extends certain provisions which would otherwise expire, including provisions related to the deduction for brownfields remediation costs, the research tax credit, the deduction for state and local sales taxes, and the college tuition deduction. This advisory focuses on the provisions in the Act affecting brownfields remediation costs.

Section 198 of the Internal Revenue Code (the “Code”) allows taxpayers to treat certain qualified environmental remediation expenditures that would otherwise be capitalized as deductible in the year paid or incurred. Qualified environmental remediation expenditures include costs “paid or incurred in connection with abatement or control of hazardous substances at a qualified contaminated site.”¹ States must certify that the costs were incurred at a qualified contaminated site.² Notably, prior to enactment of the act, section 198 did not cover petroleum substances, one of the most common contaminants requiring remediation.

Section 198 would have expired at the end of 2005. The Act extends the deduction for two years, through December 31, 2007. It also expands the definition of hazardous substance to include petroleum products,³ and amendment that will substantially expand the number of sites and remediation projects eligible for the deduction.

1 Code section 198(b)(1).

2 Code section 198(c)(3).

3 The Act references Code section 4612(a)(3), which addresses petroleum products.

(Client Advisory - Carter Ledyard & Milburn LLP – 12/22/06)

APPELLATE COURT RULING MAY LIMIT PAST INSURERS’ CLEANUP COST LIABILITY

A first-time appellate court ruling defining property damage that results from environmental contamination will likely limit the amount of cleanup costs polluters can recover from past

insurance carriers, lawyers following the case say.

An attorney representing insurance companies in the case says the ruling by the U.S. Court of Appeals for the 2nd Circuit will likely dissuade other responsible parties from using the legal theory rejected in the case – known as the “compression argument” – in which a responsible party tries to allocate the bulk of its cleanup costs over a smaller number of years in attempt to maximize their past insurer’s liability. The ruling, which the attorney says marks the first time a federal appeals court has ruled on the issue, likely “puts a stake through the heart of this argument,” the source says.

In the Nov. 7 ruling in *Olin Corporation v. Certain Underwriters at Lloyd’s London and London Market Insurance Companies*, the 2nd Circuit rejected an argument made by responsible party Olin Corporation that property damage resulting from contamination at its chemical sites near Niagara Falls, NY, was no longer considered ongoing after the contamination reached a point where remediation became necessary. Had the court ruled in its favor, Olin would have been able to allocate the total cost of the remediation to the period in which it was insured by London Insurers (LI).

The 2nd Circuit rejected the company’s argument, however, finding that “Olin’s ‘full remedy model’ is problematic because under this theory, damage to property caused by continued dumping of contaminants or migration of contamination could easily continue after full remediation is required and yet not be considered damage that would trigger a policy or add to the allocation period. Such a damages model is illogical and not supported by the case law,” the court ruled.

LI argued property damage is triggered not only by “active polluting,” but also by “passive migrating contamination.” Therefore, property damage continued at the Niagara Falls sites until Olin actually began remediation as ordered by the New York State Department of Environmental Conservation under federal Superfund law. Under this scenario, Olin’s remediation costs would be totaled over a greater number of years, therefore reducing the amount LI was responsible for to the years covered by its policy with Olin.

In its ruling, the 2nd Circuit held that “property damage occurs as long as contamination continues to increase or spread, whether or not the contamination is based on active pollution or the passive migration of contamination to decide “whether Olin has introduced any evidence by which a rational juror could conclude property damage, including the passive spread of contamination, ended before remediation.” Attorneys for the Olin Corporation were not available for comment.

(Superfund Report – 11/20/06)

EPA ISSUES FINAL RULE ON AQUATIC PESTICIDE APPLICATIONS

The Environmental Protection Agency (EPA) has issued a final rule clarifying two specific circumstances in which a Clean Water Act permit is not required before pesticides are applied.

The two situations are when:

- Pesticides are applied directly to water to control pests, including mosquito larvae, aquatic weeds and other pests in the water.

- Pesticides are applied to control pests that are present over or near water where a portion of the pesticide will unavoidably be deposited to the water in order to target the pests effectively.

After considering two rounds of public comments, EPA concluded that the Clean Water Act does not require permits in these two situations.

The final rule replaces EPA’s Interpretive Statement on the Application of Pesticides to Waters of the United States in Compliance with FIFRA, published on Feb. 1, 2005.

Final rule: www.epa.gov/npdas/agriculture/FIFRA and the pesticide program: www.epa.gov/pesticides/

(EPA – 11/21/06)

EPA CUTS MERCURY AND HYDROCARBON EMISSIONS FOR NEW PORTLAND CEMENT PRODUCTION

The U.S. Environmental Protection Agency announced new emission limits for cement kilns that will help cut annual emissions of mercury and hydrocarbons. These limits will help protect public health from mercury and total hydrocarbon emissions from Portland Cement kilns, through amendments to an air toxics standard issued on Dec. 8, 2006.

The amendments set mercury and hydrocarbon emission limits for all cement kilns built after Dec. 2, 2005, and will reduce annual mercury emissions by about one ton and annual hydrocarbon emissions by about 1,000 tons. Kilns built before that time must meet work practice requirements, such as removing cement kiln dust when it no longer can be recycled and operating kilns property to ensure complete combustion.

In addition, the amendments prohibit all cement kilns from using fly ash from utility boilers equipped with certain types of mercury emission controls, unless the cement kiln can demonstrate that use of that fly ash will not increase its mercury emissions.

While EPA proposed setting limits for hydrogen chloride for cement kilns, the Agency has determined they are unnecessary. Hydrogen chloride emissions at cement kilns are better than levels considered protective of public health.

In separate action, EPA announced that it will reconsider the mercury and hydrocarbon emissions for new kilns and take immediate steps to obtain additional information about mercury reductions achieved at kilns equipped with wet scrubbers. EPA is taking this step to consider new information about mercury and hydrocarbon controls at cement kilns. The Agency will make this information available for public review and comment.

Portland Cement Manufacturing is an energy-intensive process that produces cement by grinding and heating a mixture of materials such as limestone, clay, sand, iron ore and fly ash in a rotary kiln. That product, called clinker, is cooled, ground and then mixed with a small amount of gypsum to produce cement.

More information: www.epa.gov/ttn/oarpg/t3/fact_sheets/cement_amend_fs_120806.html (EPA – 12/11/06)

FEDERAL REGULATORY UPDATES (Continued)

EPA PROPOSES FIRST ONBOARD DIAGNOSTIC SYSTEMS FOR NEW LARGE TRUCKS AND BUSES

For the first time, EPA is proposing to require the emissions control systems of large diesel and gasoline highway trucks and buses to be monitored similarly to passenger cars. EPA's proposed regulation for onboard diagnostic (OBD) systems for large trucks and buses would help ensure that emissions control systems work properly for the useful life of heavy-duty on-road vehicles.

Onboard diagnostic systems, used in passenger vehicles since the mid-1990s, monitor emissions control components, detect need for emission-related repairs, and alert the vehicle's operator of these problems. They also help inform service technicians what problem exists so that it can be repaired properly. The OBD systems for highway trucks will work the same way.

The proposed requirements are part of the Clean Diesel Truck and Bus Program, which will result in significant reductions of nitrogen oxides, particulate matter, non-methane hydrocarbons, carbon monoxide, sulfur dioxide, and air toxics from diesel-powered vehicles. These emission reductions will prevent 8,300 premature deaths, more than 9,500 hospitalizations, and 1.5 million lost work days.

The proposal also makes changes to certain existing OBD requirements for smaller highway diesel trucks. More information on this action: www.epa.gov/obd/regtech/heavy.htm.

(EPA – 12/13/06)

LOANS TO HELP TRUCKERS SAVE MONEY, REDUCE EMISSIONS

Small trucking companies can make sure the rubber meets the road while saving money and reducing pollution with a new loan initiative that will help pay for fuel-saving technologies. The U.S. Environmental Protection Agency (EPA) is partnering with the Small Business Administration to make loans available to purchase SmartWay Upgrade Kits.

"This new loan initiative is another step forward in our nation's efforts to conserve resources, achieve energy independence, and reduce the emissions that contribute to soot and smog," said Bill Wehrum, EPA's acting assistant administrator for the Office of Air and Radiation. "By taking these actions and making advanced truck technologies more affordable, we are responding to the president's call for greater fuel efficiency."

This loan initiative uses SBA Express Loans and partners with Bank of America, Business Loan Express, Superior Financial Group and other SBA lenders to help small trucking companies finance the purchase of SmartWay Upgrade Kits. The kits include* *idle-reduction devices, low rolling resistance tires, aerodynamic equipment, and exhaust after-treatment devices. The kits can improve truck fuel efficiency by 15 percent and save more than \$8,000 in fuel costs annually, while significantly reducing emissions of soot and nitrogen oxides.

Participating lenders will provide quick approval and affordable monthly payments. Small trucking firms can borrow from \$5,000 to

\$25,000, with no collateral, an easy on-line or telephone application, and flexible loan terms. Information on EPA's SmartWay Transport Partnership program and the loan initiative: www.epa.gov/smartway/financing.htm

(EPA – 11/14/06)

EPA SHARPENS FOCUS ON ECOLOGICAL BENEFITS OF REGULATIONS

What benefits do people actually derive from clean air, water and land? EPA has taken a major step towards answering this question with the release today of its Ecological Benefits Assessment Strategic Plan (EBASP).

EPA has traditionally been able to quantify human health benefits more easily than total ecological benefits when making regulatory decisions. The EBASP will help fill this gap by enabling the agency to more comprehensively address the full economic value of environmental protection.

The EBASP will be a vital tool for agency decision-makers, supplementing current practices for identifying and quantifying the ecological benefits of the agency's policies and action. According to Benjamin Grumbles, assistant administrator for EPA's Office of Water, "This plan will boost environmental protection by advancing knowledge of ecosystem benefits. Understanding the value of a clean stream or a healthy coast informs decisions and improves environmental results."

The plan was a collaborative effort among EPA's Offices of Research and Development; Policy, Economics and Innovation; Water; Prevention, Pesticides and Toxic Substances; Air and Radiation; and Solid Waste and Emergency Response.

More on the Ecological Benefits Assessment Strategic Plan:

www.yosemite.epa.gov/ee/epa/eed.nsf/web-pages/EcologBenefitsPlan.html

(EPA – 12/19/06)

DUPONT AGREES TO KEEP TEFLON CHEMICAL OUT OF WATER

E. I. DuPont de Nemours & Co. has signed an agreement with the U.S. Environmental Protection Agency (EPA) setting a lowered interim screening level for perfluorooctanoic acid in drinking water sources around the DuPont Washington Works in West Virginia.

The EPA is establishing a much lower permissible level of 0.50 parts per billion, ppb, for perfluorooctanoic acid – also known as PFOA or C8 – used in the manufacture of Teflon non-stick cookware and all-weather clothing.

This level replaces the 150 ppb threshold set in 2002 as a temporary measure to reduce levels of PFOA exposure for residents while the EPA completes research required for a risk assessment.

Under the EPA order, the company will offer alternative drinking water or treatment to people living near DuPont's Washington Works facility if the level of perfluorooctanoic acid, or PFOA, detected in drinking water is equal to greater than 0.50 ppb.

A synthetic chemical not currently regulated under federal law, PFOA is persistent in the environment and is found at low levels both in the environment and in the blood of the general U.S.

population, the EPA warns. Studies indicate that PFOA can cause developmental and other adverse effects in laboratory animals.

The EPA has not ruled out lowering the PFOA threshold even more, after assessing the amount of PFOA that people can be exposed to without experiencing adverse health effects.

A preliminary EPA risk assessment released in 2003 found that PFOA at levels close to those currently found in women's blood might pose a developmental risk to children.

Constituents of concern associated with Teflon manufacturing were also found in groundwater near the DuPont Chambers Works in Deepwater, NJ.

(ENS – 11/21/07)

TRI BURDEN REDUCTION RULE EXPANDS USE OF FORM A

On December 18, 2006, EPA finalized a Toxics Release Inventory (TRI) rule: <http://a257.g.akamaitech.net/7/257/2422/01jan20051800/edocket.access.gpo.gov/2005/pdf/05-19710.pdf> that the agency says will encourage reductions in chemical emissions and increases in recycling at facilities nationwide. EPA also announced its decision to continue requiring TRI data reporting on an annual basis.

According to EPA, these changes: www.epa.gov/tri/tridata/modrule/phase2/forma.htm

in no way affect the specific chemicals or amounts of chemicals facilities are authorized to release to the environment. In addition, the final rule does not exempt any facility from reporting their releases, nor does it remove any chemicals from the TRI. The rule allows facilities that completely eliminate releases of persistent, bioaccumulative and toxic chemicals (PBTs), and recycle and treat fewer than 500 pounds of such chemicals, to use a shorter reporting form, known as Form A. By reducing long-lasting PBTs, EPA and facilities are delivering a cleaner environment.

For non-PBT chemicals, the rule allows businesses to use the simpler Form A, rather than the more comprehensive Form R:

www.ercweb.com/classes/course.aspx?course=1027 if their releases are fewer than 2,000 pounds of waste as part of an overall waste management limit of 5,000 pounds. By imposing the 2,000-pound cap on releases for non-PBT chemicals, EPA says that it is encouraging businesses to rely on preferred waste management methods, such as recycling and treatment, rather than disposal and other releases.

Over the past several years, EPA has worked with its partners to increase the efficiency, accuracy and timeliness of TRI data. Stakeholders requested that EPA share TRI data sooner without waiting for further analyses. In response, for the last three years, EPA has provided the public with the electronic facility data release (e-FDR) months before the annual public data release (PDR). Last year, there was a 24% increase in electronic reporting forms for 2005 data. Electronic reporting allows EPA to process the data faster, with built-in quality checks, to

FEDERAL REGULATORY UPDATES (Continued)

improve accuracy.

TRI is a publicly available EPA database, which contains information on toxic chemical releases and other waste management activities reported annually by certain industries and federal facilities.

(Env. Tip of the Week – 1/4/07)

EPA SEEKS TO SIMPLIFY TRANSITION FROM CAA MAJOR SOURCE TO AREA SOURCE

To provide incentives:

www.epa.gov/ttn/oarpg/t3/fact_sheets/OIAIpropfs.html for reduced air toxic emissions, EPA is proposing:

www.regulations.gov/fdmspublic/custom/jsp/search/searchresult/documentSearchResult.jsp?dmfRequestId=_client4`10&_dmfRender=true&_dmfClientId=1167845342140 http://www.regulations.gov/fdmspublic/custom/jsp/search/searchresult/documentSearchResult.jsp?dmfRequest

Id=_client4`10&_dmfRender=true&_dmfClientId=1167845342140 to amend what are known as the “general provisions to its air toxics standards. The proposed amendment would encourage industrial facilities to reduce air toxics emissions so they are no longer considered a “major source” of air pollution.

Major sources have the potential to emit more than 10 tons per year of a single toxic air pollutant or 25 tons per year of any combination of toxic air pollutants. If a source emits less than these amounts, it is called an area source.

The proposed amendment would allow a major source to become an area source at any time by limiting its potential to emit toxic air pollutants to below the major source thresholds. The limit would be enforced through a permit. Once a major source becomes an area source, it would be subject to an area source standard if there is one for that industry.

The proposal was published in the Federal Register on January 3.

(Env. Tip of the Week – 1/4/07)

EPA SUED FOR SETTING WEAK PARTICULATE MATTER STANDARDS

Thirteen states, the District of Columbia and a California state agency filed a joint lawsuit against the U.S. Environmental Protection Agency in December for ignoring scientific evidence and the advice of its own experts in setting weak standards for air pollution known as fine particulate matter.

The lawsuit challenges a new rule adopted by the EPA in September that set both daily and annual standards for airborne particulate matter.

The rule toughened the daily National Ambient Air Quality standard for particulate matter, but left the annual standard for the same pollutants unchanged, contrary to the recommendations of the EPA’s own Clean Air Scientific Advisory Committee.

The lawsuit was filed in the U.S. Court of Appeals for the DC Circuit by California, Connecticut, Delaware, Illinois, Maine, New Hampshire, New Jersey, New Mexico, New York, Pennsylvania, Oregon, Rhode Island and Vermont, as well as the District of Columbia and the South Coast Air Quality Management

District, a California agency.

“Our position is that the EPA has, in essence, abdicated its legal responsibility under the Clean Air Act by the disregarding the recommendations of its own advisory committee and embracing an annual standard for particulate matter that fails to ensure public safety,” said New Jersey Attorney General Rabner.

“This case is just one more example of the federal government ignoring sound science in establishing environmental policy and watering down safeguards designed to protect the public,” said Kathleen McGinty, Secretary of the Pennsylvania Department of Environmental Protection.

The federal Clean Air Act requires that EPA, in consultation with its science experts, review the existing standards for air pollutants such as PM every five years. If new evidence shows that an existing standard is too weak to protect public health, EPA must revise it.

After a recent comprehensive review of the scientific evidence, EPA’s panel of expert scientists recommended that concentrations of fine PM be lowered from the current acceptable level of 15 micrograms per cubic meter of air to 13 or 14 micrograms.

EPA RULE CUTS AIR TOXICS FROM PASSENGER VEHICLES, GASOLINE

The U.S. Environmental Protection Agency, EPA, in early February finalized new standards for emissions of toxic fumes from mobile sources such as passenger vehicles, gasoline, and gas cans.

The mobile source air toxics, MSAT, rule is intended to cut emissions of benzene, a known carcinogen, and other hydrocarbons such as 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, and naphthalene.

Most of the nation’s benzene emissions come from mobile sources, according to the EPA. People who live or work near major roads, or spend a large amount of time in vehicles, are likely to have higher exposures and higher risks, the agency says. People living in homes with attached garages are likely to be exposed to benzene levels that are higher than average.

The EPA is adopting new standards to reduce non-methane hydrocarbon exhaust emissions from new gasoline-fueled passenger vehicles. These emissions include many mobile source air toxics, such as benzene. The standards phase in between 2010 and 2013 for lighter vehicles, and between 2012 and 2015 for heavier ones.

As part of the new rule, the EPA is establishing standards that will limit hydrocarbon emissions that evaporate from or permeate through portable fuel containers such as gas cans. The agency has worked with major container manufacturers and expects that beginning in 2009 new cans will have a simple and inexpensive permeation barrier and new spouts that will close automatically.

Beginning in 2011, refiners must meet an annual average gasoline benzene content standard of 0.62 percent by volume (vol%) on all their gasoline, both reformulated and conventional, nationwide. The national benzene content of gasoline today is about 1.0 vol%.

The new EPA regulations include a nationwide averaging, banking, and trading program. In addition to the 0.62 vol% standard, refiners must

also meet a maximum average benzene standard of 1.3 vol% beginning on July 1, 2012.

A refinery’s or importer’s actual annual average gasoline benzene levels may not exceed this maximum average standard.

Gasoline sold in California will not be covered by the new rule because California has already implemented more stringent standards similar to those EPA is establishing.

The agency expects that gasoline in all areas of the country will have lower benzene levels than they do now, and there will be less geographic variability in gasoline benzene levels.

Areas where benzene levels are currently highest, such as Alaska and the Pacific Northwest, will experience the most significant reductions. EPA is providing special compliance flexibility for approved small refiners or any refiner facing extreme unforeseen circumstances.

Once the new standards are fully implemented in 2030, they are expected to reduce emissions of mobile source air toxics annually by 330,000 tons, including 61,000 tons of benzene.

The EPA estimates annual health benefits from the particulate matter reductions of the vehicle standards to total \$6 billion in 2030. The estimated annual cost for the rule is about \$400 million in 2030.

A copy of this final rule is available at: www.epa.gov/otaq/toxics.htm#regdocs

(ENS – 2/14/07)

EPA STAFF RECOMMENDS TIGHTER OZONE POLLUTION STANDARDS

The U.S. Environmental Protection Agency, EPA, in late January disclosed recommendations by its career staff on limiting ground-level ozone, or smog.

The recommendations call for strengthening the current ozone standard of .084 parts per million (ppm) down to a range of 0.080 to 0.060 ppm, with a focus on a level of 0.070 ppm.

The final staff paper recommends that the EPA administrator set a secondary standard to protect against ozone damage to welfare, including damage to plants. This includes damage to natural vegetation, forests and commercial crops.

Staff recommended a standard that is a cumulative, weighted total of daily 12-hour exposures over a three-month period within the growing season. It would give greater weight to exposures at higher ozone concentrations.

Staff also recommended a range for this standard, from 21 parts per million-hours to seven parts per million-hours.

EPA is currently reviewing the standards under a court-ordered schedule in a lawsuit brought by Earthjustice on behalf of health and environmental groups, including the American Lung Association, Environmental Defense, Natural Resources Defense Council, and Sierra Club.

Under the court ordered schedule, EPA must propose action on the ozone standard by June and take final action in early 2008.

The EPA said in a statement that the assessments, conclusions and recommendations included in the staff paper are staff judgments. They do not represent agency decisions on the ozone standards.

FEDERAL REGULATORY UPDATES (Continued)

EPA will propose action on the ozone standards by June 20, 2007 and take final action by March 12, 2008.

(ENS – 1/30/07)

EPA AFFIRMS DISPUTED RADIATION LIMITS IN PENDING YUCCA MOUNTAIN RULE

EPA is reaffirming its support for agency models used to assess radiation levels and health risks at the proposed nuclear waste disposal facility at Yucca Mountain, NV, in a move that critics say show EPA plans to include a controversial compliance period when it finalizes a key radiation rule perhaps as soon as this month.

The Agency's support of the approach, submitted last month to the federal docket for the rule, came just days before EPA submitted the rule to the White House Office of Management & Budget (OMB) for final approval. It also comes as the state of Nevada is preparing litigation against the upcoming final rule – the latest in a string of legal and administrative challenges the state is pursuing, including a recent petition to the Nuclear Regulatory Commission (NRC) to block Department of Energy (DOE) storage plans for the site.

At issue is EPA's long-delayed final rule setting radiation exposure limits at Yucca Mountain. EPA's 2001 rule was overturned by the U.S. Court of Appeals for the District of Columbia in 2004 following a court challenge by Nevada and environmentalists. The initial rule set radiation limits for the facility at 15 millirem (mrem) per year over a 10,000-year compliance period, and no standard beyond that time.

In vacating the rule, the court held that under the 1992 Energy Policy Act, EPA is obligated to set the radiation limits in accordance with the advice of a 1995 National Academy of Sciences (NAS) report, which found "no scientific basis for limiting the time period of the individual risk standard to 10,000 years or any other value."

In addition, the court held that EPA's standard must be protective through the time period that radiation levels at Yucca Mountain will be at their "peak dose" level, which by some estimates could be several hundred thousand years.

EPA consequently altered its radiation standards for Yucca Mountain, proposing in its revised rule a bifurcated plan to set radiation limits at 15 mrem for the first 10,000 years at the facility, and 350 mrem over a compliance period of 1 million years. Observers note that documents added to EPA's public docket on the proposed rule over the last year suggest that the radiation limits the Agency has put forth will stand up to OMB scrutiny.

Among them is an EPA study released Dec. 11, only days before the Agency submitted materials to OMB on Dec. 15, entitled Support to the Revision of 40 CFR Part 197. The paper affirms the EPA's models for assessing the radiation levels and health risks at the facility, including the controversial compliance period, as well as its stance on other aspects of the project critics have called into question.

The report is significant, as informed source notes, because the question of whether the Agency's standards for the 1-million-year

compliance period will be adequate is the primary focus of OMB's review. Nevada is already preparing its legal challenges to the rule, sources say. The state plans to sue EPA shortly after the rule's release, arguing that NAS gave the Agency no grounds for offering a two-tiered standard for compliance. Additionally, under the Nuclear Waste Policy Act (NWPA), the mountain must provide a "natural barrier" to radiation, and the state contends that the artificial barriers created at the site mean the mountain fails to pass that test.

EPA and OMB could not be reached for comment.

(Superfund Report – 1/15/07)

EPA BARS RESIDENTIAL USES OF CONTROVERSIAL WOOD PRESERVATIVE

EPA announced in January that it would bar registration of the controversial wood preservative acid copper chromate (ACC) for residential uses, such as decks and playground equipment, noting that it contains hexavalent chromium – a skin irritant and known human carcinogen when inhaled.

The most important factor in EPA's decision to bar the chemical's use, one environmentalist says, was the concern that allowing the broad sale of hexavalent chromium-treated lumber could have created a major cancer risk for children. The source says that EPA asked itself, "How do you justify injecting all this wood with [hexavalent chromium] when kids are going to be exposed to it?"

Another environmentalist says EPA may also have had trouble coming up with substantial benefits associated with approving the registration of ACC for residential use, pointing out that there are many less toxic alternatives to ACC on the market.

An industry official says many wood preservers are happy with the Agency's decision because approval of ACC would have raised concerns in the public about hexavalent chromium, which could have created public concerns with treated wood in general.

The Agency said in a fact sheet released Jan. 8 that the risk associated with residential uses of ACC outweighed the benefits. ACC is still registered for some industrial uses, such as treating telephone poles and railroad ties.

(Superfund Report – 1/29/07)

EPA ISSUES FINAL RULE ON OIL SPILL PREVENTION, CONTROL, AND COUNTERMEASURES

The U.S. Environmental Protection Agency amended certain requirements for facilities subject to EPA's Oil Spill Prevention, Control, and Countermeasures (SPCC) regulations. The SPCC regulations require covered facilities to prevent, prepare for and respond to oil discharges. The final rule will provide alternative compliance options for certain regulated facilities.

This final rule provides streamlined options for specifically qualified facilities and exemptions from the SPCC regulations for certain vehicle fuel tanks and other on-board bulk oil storage containers. EPA is also exempting mobile refuelers from the sized secondary containment

requirements for bulk storage containers, and removing requirements for animal fats and vegetable oils that pertain to onshore and offshore oil production facilities, oil drilling and workover facilities.

In the final rule, EPA is also extending the compliance date for farms to either prepare and implement new SPCC plans or amend existing (maintained) SPCC plans and implement the amended plans until EPA publishes a future rule specifically addressing how farms should be regulated under the SPCC rule.

To provide the regulated community time to implement these modifications, as well as anticipated additional modifications, EPA is also issuing a proposed rule to extend the compliance dates to July 1, 2009 for owners and operators of facilities (with the exception of farms) to amend and implement an existing SPCC plan or in the case of new facilities, time to prepare and implement a new SPCC plan.

Nothing in the final rule and the proposed rule removes any regulatory requirement for owners or operators of facilities in operation before Aug. 16, 2002 to have developed, implemented and maintained a SPCC plan in accordance with the SPCC regulations then in effect. Such facilities continue to be required to maintain their plans during the interim until the applicable date for amending their existing plans and implementing their amended plans.

(EPA – 12/16/06)

EPA PROPOSES EXEMPTION FOR AUTOMOTIVE HAZARDOUS WASTE

The EPA is proposing to amend the F019 hazardous waste listing to facilitate the use of aluminum in automobiles, light trucks, and utility vehicles. This action will encourage the production of more fuel-efficient vehicles by reducing the barriers to producing vehicles using lighter aluminum parts.

F019 is one of EPA's F-code RCRA hazardous waste listings, which includes waste that is generated from common industrial and manufacturing processes. The proposed amendment exempts F019 waste generated in the auto manufacturing industry from regulation on the condition that the waste is disposed of in a landfill unit that meets certain liner design criteria. Using aluminum parts instead of heavier steel or iron parts produces lighter vehicles capable of decreased exhaust air emissions and increased gas mileage. EPA expects to publish the proposal in the Federal Register in about two weeks.

For more information, go to the Proposed Listing Exemption for F019 Wastewater Treatment Sludge Web site:

www.epa.gov/epaoswer/hazwaste/id/f019/f019/h tm

(Env. Tip of the Week – 1/15/07)

EPA ISSUES CERCLA MODEL AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION BY A BONA FIDE PROSPECTIVE PURCHASER

EPA in late November issued the CERCLA Model Agreement and Order on Consent for Removal Action by a bona fide prospective purchaser ("BFPP") (BFPP Removal Model Agreement). This model is part of EPA's contin-

FEDERAL REGULATORY UPDATES (Continued)

uing effort to promote land reuse and revitalization by addressing potential liability concerns associated with acquiring contaminated properties. This model responds to requests from parties who enjoy liability protections provided for bona fide prospective purchasers by Sections 101(40) and 107(r) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), 42 U.S.C. § 9601, et seq. as amended by the Brownfields Amendments, who will perform removal work at sites of federal interest that they own or intend to acquire, where EPA may advise on the extent of cleanup required and oversee the work, and where the removal work will exceed the "reasonable steps to prevent releases" obligation upon which their BFPP status depends.

The following are excerpts from a memo to EPA's region offices:

- In May 2002, EPA issued a policy stating that, in most cases, the Brownfields Amendments make agreements that provide a covenant not to sue (prospective purchaser agreement or PPAs) from the federal government unnecessary. *Bona Fide Prospective Purchasers and the New Amendments to CERCLA*, May 31, 2002 (BFPP Policy). EPA continues to believe that PPAs are no longer necessary in the vast majority of cases, because BFPPs may now purchase property with knowledge of contamination and not acquire CERCLA liability as long as they meet certain BFPP criteria. In the May 2002 BFPP Policy, the Agency recognized that, in limited instances, the public interest would be served by entering into PPAs or some other form of agreement with purchasers of contaminated property. One of the instances identified in the BFPP Policy as justifying a federal covenant not to sue was where a significant environmental benefit will be derived from the project in terms of cleanup. This model is intended to serve as the vehicle for providing a federal covenant not to sue and contribution protection for BFPPs who will perform removal work exceeding reasonable steps at a site of federal interest. The model offers an "existing contamination" covenant like that offered in the 1999 Model PPA, and includes appropriate provisions associated with the performance of removal work. In addition, it provides a release and waiver of any windfall lien. The model conforms to other recently issued models insofar as certain provisions have been standardized from model to model. It is unique, however, in that the settling party already has statutorily conferred liability protection as a BFPP.

- The BFPP Removal Model Agreement is intended for removal sites where there is a federal interest and the work required is complex or significant in extent. For this reason, this Model includes provisions relating to, e.g., reimbursement of oversight costs, work takeover, and financial responsibility, designed to ensure that the work is completed in a timely and proper manner by the BFPP. Any determination to omit one or more of these provisions should be based on consideration of specific factors, including the nature and extent of the work, the risks presented by not including a specific provision in the agreement, the benefits of having the removal performed by the BFPP, and the benefits to the BFPP of cleaning up the site with EPA's direct

oversight and involvement, including, e.g., any enhancement to the value or marketability of the site or property that would flow from a cleanup performed with EPA's oversight and involvement. Omissions from the model, other than designated optional provisions, should be discussed with Headquarters and Department of Justice prior to that omission being offered or agreed to.

- For federal interest sites where BFPPs wish to satisfy their reasonable steps requirements but do not intend to undertake a removal action with EPA oversight, EPA may continue to provide comfort/status letters suggesting site-specific reasonable steps where appropriate. *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability ("Common Elements")*, March 6, 2003. As stated in the Common Elements Guidance, such comfort/status letters are limited to sites with significant federal involvement such that the Agency has sufficient information to form a basis for suggesting reasonable steps.

- In implementing this new model for removal work by BFPPs, Regions are asked to coordinate with EPA Headquarters and with the Department of Justice early in the process. Any Region settling with a BFPP for removal work at a property owned by that BFPP will be expected to consult with Headquarters on the settlement being proposed. In addition, any Region significantly deviating from this model for settlement with a BFPP, other than using the previously published Model for Waiver of the Windfall Lien, will be required to seek Headquarters' concurrence from the Director of Regional Support Division. The Department of Justice must approve and sign each of these settlements.

This model is available on EPA's Web site at: www.epa.gov/compliance/resources/policies/cleanup/superfund/bfpp-ra-mem.pdf.

(EPA – 11/27/06)

FOUR MAINE LOBSTERING FACILITIES FINED FOR LACK OF SPCC PLANS

Four lobstering facilities in Spruce Head, Maine have reached a settlement with EPA resolving violations of the federal Clean Water Act. EPA alleged that the facilities did not have proper plans to prevent oil spills:

<http://epa.gov/oilspill/spcc.htm> as required by the Oil Pollution Prevention Regulations and fined each facility \$3,000. The facilities subject to EPA's actions are Maine Coast Seafood, McLoon's Wharf, LLC, Spruce Head Fisherman's Co-op and William Atwood Lobster Co.

EPA & #8217;s New England office: <http://epa.gov/ne/superfund/er/oilstor.htm> has recently been increasing the number of enforcement actions against facilities that are out of compliance with the Oil Pollution Prevention regulations through an expedited settlement program. The expedited settlement program is designed to resolve easily correctable violations of the Oil Pollution Prevention regulations detected during an EPA inspection. If a facility chooses not to enter into an expedited settlement agreement with EPA, the Agency may pursue a

more traditional enforcement action, likely resulting in higher penalties.

"All facilities, whether big or small, need to abide by the law requiring plans to prevent oil spills," said Robert W. Varney, regional administrator of EPA's New England office. "We do, however, appreciate efforts by facilities to quickly correct violations, and in these cases we are willing to resolve our enforcement action in an expedited manner."

Facilities which can store more than 1,320 gallons of oil in aboveground tanks or 42,000 gallons below ground, are required to have spill prevention, control, and countermeasure plans, also known as an SPCC plans, if it could reasonably be expected that a discharge of oil from the facility would reach a water of the United States or its adjoining shoreline considering a possible worst case scenario. The purpose of the SPCC program is to prevent spills before they happen, thus the need for a properly prepared and implemented plan is crucial to the success of the program.

Although all of the Spruce Head lobstering facilities store oil in amounts above the thresholds that require the preparation and implementation of an SPCC plan, EPA inspections revealed that they did not have adequate plans. Because of the relatively small quantity of oil stored at the facilities, and the fact that the facilities had some secondary containment for their oil storage, which is a major requirement under the Oil Pollution Prevention regulations, EPA decided to use expedited agreements to resolve the violations. The expedited settlement process for violations of the Oil Pollution Prevention regulations has been used successfully in other EPA regions.

(Env. Tip of the Week – 1/22/07)

BUSH ORDERS FEDERAL AGENCIES TO SLASH ENERGY CONSUMPTION

President George W. Bush in January issued an executive order requiring federal agencies to cut their energy consumption, shift federal fleets to alternative fuel and plug-in hybrid vehicles, and expand procurement programs for environmentally friendly products.

Under the order, agencies operating fleets of at least 20 motor vehicles must reduce their consumption of petroleum products by two percent a year through the end of fiscal 2015.

Bush said federal agencies would start buying new plug-in hybrid vehicles "as soon as they hit the market."

The order requires agencies to reduce their overall energy use by three percent annually through 2015 and to cut water consumption two percent annually over the same period.

Agencies must increase alternative fuel consumption at least 10 percent annually.

The order mandates that agencies expand procurement programs focusing on environmentally friendly products, including bio-based products.

At least 50 percent of current renewable energy purchases must come from renewable sources that began generating power after January 1, 1999, the order states.

Agencies must reduce the use of chemicals

FEDERAL REGULATORY UPDATES (Continued)

and toxic materials and purchase lower risk chemicals and toxic materials from a top priority list.

In addition, annually, 95 percent of electronic products purchased must meet Electronic Product Environmental Assessment Tool standards where applicable. The order requires agencies to enable Energy Star features on all computers and monitors; and reuse, donate, sell, or recycle 100 percent of electronic products using environmentally sound management practices.

Finally, by 2010 the federal government must increase to at least 2,500 the number of operations that implement environmental management systems, up from about 1,000 today.

The Executive Order consolidates and strengthens five other executive orders and two memorandums of understanding and establishes new and updated goals, practices, and reporting requirements for environmental, energy, and transportation performance and accountability.

(ENS – 1/26/07)

EPA PUBLISHES GROUNDWATER RULE

The Environmental Protection Agency (EPA) has published the final Groundwater Rule, which is designed to reduce the risk of exposure to fecal contamination that may be present in public water systems that use groundwater. The rule is expected to drive the use of membrane treatment systems and disinfection technologies as utilities work to achieve the required 4-log removal or inactivation of viruses.

The GWR applies to more than 147,000 public water systems that use groundwater. The rule also applies to any system that mixes surface and groundwater if the groundwater is added directly to the distribution system and provided to consumers without treatment equivalent to surface-water treatment. In total, these systems provide drinking water to more than 100 million consumers.

The rule calls for periodic sanitary surveys of groundwater systems, requiring the evaluation of eight critical elements and the identification of significant deficiencies. States must complete the initial survey by December 31, 2002, for most community water systems (CWSs) and by December 31, 2014, for CWSs with outstanding performance and for all non-community water systems.

On-going compliance monitoring is required to ensure that treatment technologies reliably achieve at least 99.99 percent (4-log) inactivation or removal of viruses. Systems that don't achieve 4-log removal or that have a positive coliform sample during testing will face increased monitoring requirements.

(Water World – 11/06)

U.S. SUPREME COURT TO ADDRESS SUPERFUND COST RECOVERY CONTROVERSY

On January 19, 2007, the U.S. Supreme Court decided to review the question of whether a private party, who is a potentially responsible party (“PRP”) under the Superfund (“CERCLA”) liability scheme, may sue other PRPs for cost recovery under CERCLA Section 107 (a), even when the plaintiff has not been sued or otherwise resolved its environmental liability with the

government. This question has been the most hotly contested issue in Superfund litigation since the Supreme Court's 2004 decision in *Cooper Industries, Inc. v. Aviall Services, Inc.*, 543 U.S. 157. The Supreme Court's review of the Eighth Circuit's decision in *Atlantic Research Corp. v. United States*, 459 F.3d 827 (8th Circuit 2006), likely will resolve a split of opinion among the circuits of the Court of Appeals and among district courts. The appeal of *Atlantic Research*, which likely will be briefed and argued this term, will be watched closely by all parties affected by the Superfund process, including developers, lenders, insurers, current CERCLA litigants, and all those involved in “voluntary” cleanups.

The controversy now before the Supreme Court stems from its decision in *Cooper* that a PRP may not bring an action for contribution under CERCLA Section 113 (f) unless that PRP was the subject of a “civil action” under CERCLA Section 106 or 107 (a). Thus, absent a lawsuit or an enforcement action having been brought against a PRP, a PRP could not use CERCLA Section 113 (f) to recover costs in contribution from other PRPs. While recognizing that Sections 106 and 107 are distinct causes of action, the Supreme Court majority in *Cooper* expressly declined to address whether Section 107(a) provided PEPs an alternative method for recovery of response costs resulting from voluntary cleanups. Two dissenting Justices opined that the Court should rule that Section 107 (a) allowed that alternative remedy.

Since the Supreme Court's decision in *Cooper*, four federal appellate courts and more than a dozen district courts have issued conflicting decisions on this issue of law. Less than three years after the *Cooper* decision, this precise issue is back before the Supreme Court.

Atlantic, The Eighth Circuit case in which the Supreme Court will address a PRP's rights to CERCLA cost recovery under Section 107, also presents the interesting issue of a PRP's rights to recover costs against a powerful PRP – the United States. *Atlantic*'s CERCLA liability is due to its work retrofitting rockets for the United States. *Atlantic* voluntarily remediated resulting contamination and sought to recover a portion of its costs from the government. After the *Cooper* decision, *Atlantic* could no longer sue for contribution under §113 (f), and the United States moved to dismiss *Atlantic*'s Section 107 (a) cost recovery claim. In its decision, the Eighth Circuit agreed with the reasoning of the Second Circuit in *Consolidated Edison Co. v. UGI Utilities, Inc.*, 423 F.3d 90 (2005). The eighth Circuit held that CERCLA's language and policy of encouraging prompt cleanup granted *Atlantic* a Section 107 (a) claim for “direct recovery” of a portion of its response costs or, in the alternative, an “implied right” to contribution. The court also noted the inequity of the United States' position – because the United States could control whether a civil action was brought against *Atlantic*, under the government's position, the United States could shield itself from liability by refusing to bring such an action and, thus, preclude a traditional contribution action under Section 113 or any action under Section 107 (a).

The Supreme Court's decision in *Atlantic* could resolve fundamental questions under the Superfund law – who has the right to recover response costs, when, and under what circumstances. If the Supreme Court sides with the United States, scores of PRPs who have advanced funds “voluntarily” to clean up contaminated sites may be left without a CERCLA remedy to recover a portion of those costs from other PRPs. Others who are contemplating starting such voluntary activity may first insist that federal or other authorities bring an enforcement or cost recovery action against them in order to create contribution rights under Section 113 (f). We can expect that parties involved in the Superfund process will delay decision-making until the Supreme Court's decision is issued later this year.

(Jennifer & Block Environmental Alert – 1/25/07 by Gabrielle Sigel)

EPA TARGETS TRAINS, SHIPS TO CUT SMOG

Continuing a seven-year crackdown on diesel-engine pollution, the Environmental Protection Agency is proposing to all but eliminate the soot and smog-related emissions of locomotive engines and similar diesel engines used in ships.

“EPA is on track to make that black puff of diesel smoke go the way of the steam engine,” said Stephen Johnson, EPA Administrator, who estimated the health benefits will be 20 times the estimated \$2 billion to \$4 billion cost of implementing the reductions.

The rule would require that nitrogen-oxide emissions from the most modern locomotives, such as General Electric's Evolution model, be reduced more than 75%.

The proposal, which Mr. Johnson said he hopes will take effect by the end of this year, will require most existing locomotives to meet new engine emissions standards when they are overhauled, beginning next year. A second phase of the rule, starting in 2009, will apply new standards to newly manufactured engines.

Starting in 2014, the rule will require owners of diesel-powered ships that cause pollution in U.S. ports to install the smog reducing catalytic converters. The following year, catalytic converters will be required for newly built locomotives. The proposal is the last step in a campaign by EPA to sharply reduce diesel-related pollution.

(By John J. Fialka and Kathryn Kranhold, Wall Street Journal – 3/2/07)

LATE BREAKING NEWS

- **Bald Eagles Return to Philadelphia after 200 Years Absence.**

(Phila. Inquirer - 3/18/07)

- **Town Requires Remediation of Naturally Occurring Arsenic at Residential Site.**
(Gloucester County Times -

NJ REGULATORY UPDATES

CLEANUP STAR PROJECTS RECEIVING ATTENTION IN NEW JERSEY

RT continues to complete Cleanup Star projects in New Jersey. NJDEP Cleanup Star projects offer a fast No Further Action letter, for qualifying sites. Qualifying sites include those:

- where a Preliminary Assessment has been completed, no areas of concern were found, and the site Owner or Purchaser desires assurance that a “No Further Action Letter/Covenant Not to Sue” under the state’s Brownfields Law applies to the site.

- sites where impacts to soil have been found, and the impacts have been remediated by excavation and removal to the most stringent standard, and the Owner or Purchaser desires the same statutory cleanup liability protection. Sites with groundwater impacts do not qualify for Cleanup Star.

Only pre-qualified individuals can submit Cleanup Star Reports to NJDEP. Cleanup Stars receive initial training, and are typically also Professional Engineers, NJDEP Bureau of Underground Storage Tank Program Subsurface Evaluators, and have adequate training and licensing so as to be qualified to recognize releases and know how to remediate them under the Technical Requirements for Site Remediation.

When submitting reports to NJDEP under the Cleanup Star Program, which is considered a voluntary cleanup, different forms are used than for other voluntary cleanups, and NJDEP completes a “peer review” of the submitted report. Reports can be submitted for an entire site, if all areas of concern are addressed, or, for individual areas of concern at a given site. Sites with groundwater issues, or at agricultural sites where soil blending can be used do not qualify for inclusion in the Cleanup Star program.

RT projects receiving Cleanup Star approval including a tank closure removal project in Gloucester County, a Pinelands area former Cranbury bog operation, and at a residential site in Camden County, which was formerly used for landscape service operations.

Gary Brown, RT’s President, is a qualified Cleanup Star; he can be reached at 800-725-0593, ext. 34, or by e-mail at: gbrown@rtenv.com.

NJDEP ISSUES PROPOSED STORMWATER DISCHARGE MASTER GENERAL PERMIT FOR ASPHALT PLANTS

The New Jersey Department of Environmental Protection (NJDEP) has issued an updated Stormwater Discharge Master General Permit modification which is more practical for asphalt plants to use, than past permits.

Major modifications include:

- Added requirements for stormwater discharges to groundwater (DGW).
- Changed submittal and compliance schedules from Effective Date of Permit (EDP) to Effective Date of Permit Authorization (EDPA) where appropriate.

Administrative corrections and clarifications include:

- Changed stormwater-only monitoring frequency from a limited monthly schedule to regular quarterly schedule;
- Changed the wording of submittal require-

ments from Attachment C, Attachment D and Annual Recertification D to the new Certification Form which has multiple check boxes for certification of SPPP Preparation, SPPP Implementation and Annual Certification.

- Clarified the language regarding management of recyclables;
- Clarified the language regarding water recycling;

- Made additions to the list of definitions;
- Made miscellaneous typographical corrections.

On behalf of a number of South Jersey Hot Mix Asphalt Plant Owners and Operators, RT made recommendations for changes to NJDEP, so that the Master General Permit could be used at plants which did not have piped stormwater discharges. As many Southern New Jersey asphalt plants have yard areas with native gravel and sand South Jersey materials beneath stockpile and yard areas, the previous Master General Permit required such plants to apply for individual permits, and, implement relatively expensive groundwater monitoring. RT pointed out to DEP that most plants have secondary containment around ASTs, and paved areas where asphalt is loaded and oil and hazardous materials managed, so the new modification to the Stormwater Discharge Master General Permit will be much more helpful and practical and provide a uniform set of rules for stormwater discharge management at asphalt plants throughout the state.

At asphalt plants, under the General Permit, Stormwater Pollution Prevention Plans as well as annual certifications are required to make sure that impacted stormwater is not leaving the site, or impacting groundwater, at asphalt plant locations. For more information on the new Stormwater Discharge Master General Permit Modification please call Walter Hungarter or Gary Brown at 800-725-0593.

NEW NJDEP RULE PROPOSED FOR DIESEL VEHICLES

The NJ Department of Environmental Protection (Department) is proposing new rules at N.J.A.C. 7:27-32, Diesel Retrofit Program, and amendments to N.J.A.C. 7:27-14, Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles, 7:27A-3.10(m), Air Administrative Procedures and Penalties, and 7:27B-4, Air Test Method 4: Testing Procedures for Diesel-Powered Motor Vehicles.

The proposed new rules will require the installation of closed crankcase ventilation systems (CCVS) or tailpipe retrofit devices on certain diesel-powered vehicles and equipment, including school buses, solid waste collection vehicles, publicly owned commercial buses, privately owned commercial buses, and publicly owned on-road vehicles and off-road equipment.

The Department is jointly proposing rules with the Motor Vehicle Commission regarding the installation of CCVS and the training of persons who inspect a vehicle pursuant to the periodic or roadside inspection programs. The Department is jointly proposing rules with the State Treasurer regarding reimbursement of the cost of the purchase and installation of the required CCVS and retrofit devices.

The proposal is scheduled to be published in the New Jersey Register dated December 18,

NJ REGULATORY UPDATES

- Cleanup Star Projects - RT on the Move, pg.19
- Asphalt Stormwater Master Permit, pg. 19
- New Diesel Rules, pg. 19
- New Flood Control & Riparian Rules, pg. 20
- Concrete Recycling Rule Update, pg. 21

2006. A copy of the proposal is available from the Department’s web site (PDF).

GOVERNOR CORZINE ESTABLISHES OFFICE OF ECONOMIC GROWTH AS A PERMANENT PART OF THE EXECUTIVE BRANCH

Governor Jon S. Corzine on January 5, signed Executive Order 50 to make the Office of Economic Growth (OEG) a permanent part of the executive branch and enhance its ability to coordinate the state’s economic development efforts across all sectors and departments.

“It’s imperative that New Jersey continues to move forward with respect to our plans for improving the business climate, attracting and retaining good jobs and promoting continued growth,” Governor Corzine said. “Establishing the OEG as a permanent part of the executive branch allows us to build on our progress and continue on to the next stage of implementing the sound economic growth strategy we have developed.”

The OEG, which will continue to report directly to the Governor, oversees the implementation of the state’s Economic Growth Strategy and coordinates economic development efforts. In January 2006, Governor Corzine named Gary D. Rose to the cabinet-level position of OEG chief. Rose also serves as chair of the Governor’s Economic Growth Council, a group of business and labor leaders who provide advice to the Governor and Rose about job creation and business expansion opportunities.

“As I indicated almost a year ago, we need to use all of our resources to fight for good jobs all across the state, and we need to bring the perspective of economic development to every area of state government,” said Rose. “This Executive Order helps us move the implementation of the Governor’s strategy to the next level and pursue the objectives that will benefit this great state and its residents.”

The Order requires each State department, division, authority, and agency shall be required to the extent not inconsistent with law, to cooperate with the Office of Economic Growth.

NEW JERSEY POWER PLANTS MUST UPGRADE POLLUTION CONTROLS

Power utility PSEG Fossil LLC has agreed to pay \$6 million in cash and perform \$3.25 million in mitigation projects after the company failed to install pollution controls at coal-fired power plants in New Jersey as required by a 2002 court order.

The U.S. Environmental Protection Agency, EPA, the U.S. Department of Justice, and the state of New Jersey announced the settlement in early December.

The settlement covers PSEG’s coal-fired power plants in Jersey City and Hamilton, New Jersey and is more stringent than the 2002 settle-

NJ REGULATORY UPDATES (Continued)

ment the company violated.

Subject to court approval, the new settlement secures additional air pollution reductions, tighter controls, environmental projects, and a financial penalty.

PSEG will be required to pay a civil penalty of \$6 million - \$4.25 million to the federal government and \$1.75 million to New Jersey.

PSEG will perform environmental mitigation projects valued at \$3.25 million to reduce particulate matter from diesel engines in New Jersey.

"This amended settlement provides increased public health benefits over the original settlement," said Sue Ellen Wooldridge, assistant attorney general for the Justice Department's Environment and Natural Resources Division.

"The new hardware commitments in the Amendment add assurance that toxic mercury emissions will be dramatically reduced and will also provide important long-term reductions in NOx [nitrogen oxides] and SO2 [sulfur dioxide] emissions," she said.

"While we are never pleased to see any delays in emissions controls on these coal-fired power plants, we nevertheless recognize that our negotiations with PSEG have yielded more stringent emissions reductions than we might have originally achieved," said Lisa Jackson, commissioner of the New Jersey Department of Environmental Protection.

PSEG will be required to installed continuous emissions monitoring systems that measure soot and mercury emissions at its Hudson and Mercer plants.

The state of New Jersey and EPA will use information from these monitors to determine the utility's compliance with the emissions limits.

(ENS - 12/1/06)

NEW JERSEY ENHANCES PROTECTIONS FOR HIGHLANDS WATER QUALITY

New Jersey Department of Environmental Protection Commissioner Lisa Jackson announced re-adoption of rules that implement stricter environmental standards in the designated Preservation Area of the Highlands region.

"The department remains firmly committed to the goals of the landmark Highlands Water Protection and Planning Act, which not only protects exceptional forest lands, wetlands and wildlife habitats, but safeguards water supplies for more than five million people," Commissioner Jackson said.

The Highlands is a 1,250 square-mile area in the northwestern part of the state encompassing hills, forests and lakes. It stretches from Phillipsburg in the southwest to Ringwood in the northeast, and lies within parts of seven counties - Hunterdon, Somerset, Sussex, Warren, Morris, Passaic and Bergen. The rules protect the Highlands' surface waters through a 300 foot development buffer and protect groundwater through septic density standards. They set impervious surface restrictions, limit development on steep slopes, set protections for upland forests and historic resources, and establish protections for rare, threatened and endangered species.

The rules will be published in the New Jersey Register on December 4 and will become effective upon publication. The rules implement the Highlands Act, signed into law on August 10, 2004.

These new Highlands rules apply to the Preservation Area; they do not apply to the designated Planning Area.

The new rules clarify various aspects of interim rules adopted in May 2005.

Changes include language that clarifies implementation of the rules through the Highlands Regional Master Plan to be adopted by the Highlands Council.

Improved field methodologies are required in making determinations of an area as a forest, which is a key consideration in determining an area's septic density.

Two new general permit programs allow nonprofit groups, municipalities and others to create habitat and use certain stream bank stabilization methods to protect or improve water quality.

Finally, the new rules provide that, if landowners are required to offer land for conservation purposes, nonprofit groups using money from the Garden State Preservation Trust must negotiate the purchase price based on land values as they were prior to implementation of the Highlands Act.

Surface and ground sources in the Highlands supply water to more than 290 municipalities in 16 of New Jersey's 21 counties.

For more information and a full version of the rules, go to:

www.state.nj.us/dep/highlands/

(ENS - 11/2/06)

\$1.7 MILLION IN FEDERAL FUNDS FOR NEW JERSEY TRAILS

More than \$1.7 million in federal grant money has been designated to maintain and improve trails in New Jersey.

Department of Environmental Protection Commissioner Lisa Jackson said, "These funds will improve access to ever-expanding networks of trails throughout New Jersey, including nature trails, trails in urban parks, handicapped-accessible trails and canoe trails. The direct beneficiaries of this money are our many residents and visitors who enjoy the outdoors."

More than \$730,000 from the federal Highway Administration's Recreational Trails Program has already been approved for 40 trail projects.

The 40 projects were recommended for funding by the New Jersey Trails Council and approved by the Highway Administration.

In the coming year, the DEP will administer \$1 million in competitive grants for groups that operate and maintain trails. Recipients are required to provide 20 percent matching money for each project.

Some projects already approved for funding include a \$21,400 grant to the Morris County Park Commission to develop a link in the countywide Patriots' Path trail system.

In Burlington County, Rancocas State Park will use \$25,000 to provide canoe and kayak access to the South Branch of Rancocas Creek.

Edwin B. Forsythe National Wildlife Refuge in Atlantic County was awarded \$14,505 to make two trails accessible to handicapped persons.

The DEP will reserve money from the federal grant program for the development of future motorized trail projects.

The DEP's Office of Natural Lands Management administers the program. The Trails

Council is made up of representatives from hiking, mountain biking, motorized trail use, canoeing/kayaking and horseback riding interest groups, as well as several general trail advocates and representatives from state government.

(ENS - 12/1/06)

NJDEP PROPOSES NEW FLOOD CONTROL RULES

Prompted by the findings of a state task force, the New Jersey Department of Environmental Protection ("NJDEP") has responded to the severe flooding of September 2004 and April 2005, which caused widespread damage and forced thousands of New Jersey residents to evacuate their homes, by proposing new flood control rules. According to NJDEP, the rules, if adopted, will significantly change the existing regulatory programs to better prevent and mitigate flood impacts. The proposal, published in the October 2 New Jersey Register, includes provisions to create bigger "no-development" buffer zones around waterways, prohibit the net addition of fill material to flood plains (the so-called "no net fill" rule), modernize flood plain maps, set aside funding for the purchase of low-lying properties to be held in trust, streamline permitting of flood plain activity, and immediately address a number of flooding "problem areas" around the state. This is the first major land use initiative of the Corzine administration and promises to impact the course of future development in New Jersey. Public comments on the proposed rules were due to be submitted to NJDEP by December 31.

(Manko Gold Katcher & Fox Client Alert - 11/06)

The NJDEP has actually proposed far-reaching changes to its flood control, stream encroachment and riparian zone regulatory program. These changes could be in effect by October. Visit our web page at: www.rtenv.com for more information.

NJDEP PROPOSES COMPREHENSIVE REVISIONS TO DPCC REGULATIONS

NJDEP is proposing both substantive changes and more general modifications to the rules governing Discharges of Petroleum and Other Hazardous Substances, which establish discharge prevention and emergency response requirements for facilities storing or handling hazardous substances. The October 16 proposed rules have been streamlined and include some clarifying definitions, as well as requirements for additional information in the Discharge Prevention, Containment and Countermeasure ("DPCC") and Discharge Cleanup and Removal ("DCR") plans that owners and operators of regulated facilities submit to NJDEP. The proposal would also change the tank testing, mapping, certification, and penalty provisions of the existing regulations. Public comments on the proposed rules were to be submitted to NJDEP by December 15.

(Manko Gold Katcher & Fox Client Alert - 11/06)

WEB SITE TRACKS ACTIVITY OF DEP

The public can track the latest activity of state environmental investigators through a new information service now available on the Department of Environmental Protection's Web site,

NJ REGULATORY UPDATES (Continued)

Commissioner Lisa P. Jackson announced.

The new field-activity blotter offers the public an at-a-glance listing of all site visits the DEP's compliance and enforcement investigators have conducted during the past 14 days.

"We've made it even easier for the public to find out what we are doing in New Jersey's neighborhoods to make sure the laws and regulations that safeguard public health and our environment are obeyed," Jackson said.

The report features the location for each site visit as well as the date and the program of interest, such as air, water quality, hazardous waste and land use.

To view the blotter, visit:

www.state.nj.us/dep/enforcement/EnforcementInAction.html.

(*Gloucester City Times* – 1/28/07)

GOVERNOR CORZINE CALLS FOR SWEEPING REDUCTION OF GREENHOUSE GAS EMISSIONS IN NJ

Governor Jon S. Corzine today signed an Executive Order to adopt proactive and ambitious goals for the reduction of greenhouse gas emissions in New Jersey. The order specifically calls for reducing greenhouse gas emissions to 1990 levels by 2020, approximately a 20 percent reduction, followed by a further reduction of emissions to 80% below 2006 levels by 2050. New Jersey is one of the first states in the nation to adopt such aggressive goals.

"Today we have taken steps to preserve our planet for our children and grandchildren by adopting aggressive goals for the reduction of greenhouse gas emissions," Governor Corzine said. "In the absence of leadership on the federal level the burden has now fallen upon state executives and legislatures to lead the way on this issue and I'm proud that New Jersey is helping to blaze that trail."

To reach this goal, the Commissioner of the Department of Environmental Protection (DEP) will work with the Board of Public Utilities (BPU), the Department of Transportation (DOT), the Department of Community Affairs (DCA) and other stakeholders to evaluate methods to meet and exceed the 2020 target reductions. The DEP Commissioner will make specific recommendations to meet the targets while taking into account the economic benefits and costs of implementing these recommendations. This evaluation will be done in conjunction with the state's Energy Master Plan, which will incorporate the new greenhouse gas reduction goal.

The order calls on the DEP to develop a 1990 greenhouse gas emission inventory as well as a system for monitoring current greenhouse gas levels so that progress toward goals can be accurately tracked. DEP will report progress towards the target reductions no less than every two years and if necessary will recommend additional actions to reach the targets. To further reduce emissions, the order calls for the Director of Energy Savings to develop targets and implementation strategies for reducing energy use by state facilities and vehicles fleets.

"Global warming is the most urgent environmental challenge of our time, and Governor Corzine rose to that challenge today by establishing a firm, far-reaching, science-based commitment to reduce New Jersey's global warming

emissions," said Suzanne Leta Liou of Environment New Jersey. "His support for policies needed to achieve steep reductions will ensure New Jersey tackles this problem head-on and sets a vital precedent for strong national action."

The administration will call on other states to join in its efforts and will work closely with the Legislature to pass legislation to support and strengthen the targets set out in the Executive Order. Senator Barbara Buono (D-Middlesex) and Assemblywoman Linda Stender (D-Union) are currently working on a bill to accomplish that goal.

As a member of the Regional Greenhouse Gas Initiative, a cooperative effort of Northeastern and Mid-Atlantic states working to reduce carbon dioxide emissions, the Corzine Administration will set up a cap and trade program to help limit carbon dioxide pollution from electric power plants. Under this system power plants that exceed a predetermined level of carbon dioxide emissions will be required to pay a fee for each ton of carbon emitted over the limit. Governor Corzine will work with the Legislature to dedicate up to 100% of these funds to promote energy efficiency, renewable energy as well as other projects that benefit electric users. Senator Bob Smith (D-Middlesex) and Assemblyman John F. McKeon (D-Essex) are currently working on legislation to accomplish this goal.

NJ DEP REVISES GUIDANCE FOR THE SAMPLING AND ANALYSIS OF CONCRETE DESIGNATED FOR RECYCLING

I. Overview:

The New Jersey Department of Environmental Protection (Department or NJDEP) has revised its Guidance requiring the characterization, preferably by in situ predemolition sampling, or post-demolition sampling, by analysis of concrete and post-demolition concrete-processing fines at all New Jersey demolition and construction sites that have the Department's Site Remediation and Waste Management Program's (SRWMP) oversight at a contaminated site when the concrete is designated for: 1) recycling pursuant to N.J.A.C. 7:26A et seq.; or, 2) beneficial use pursuant to N.J.A.C. 7:26-1.7(g), rather than disposal as solid waste. This characterization requirement applies to demolished buildings, concrete roadways and related structures such as, but not limited to, sidewalks and curbing. The Department is taking this step to ensure that the concrete entering the State's concrete recycling system is clean and will not contaminate otherwise clean sites.

II. Concrete Materials Characterization:

Key Highlights Are:

- Through either in situ, which is the preferred approach, or post demolition sampling the site owner is responsible for characterizing the concrete in the structures the owner is demolishing. In-situ sampling and analysis is sampling prior to demolition at targeted areas of the structure, which are known and suspected areas of contamination, in order to determine contamination levels. More detailed information concerning in situ sampling requirements is described in Section V below.

- Alternatively, the owner may elect to con-

duct post-demolition sampling and analysis of the concrete from a structure or consolidation of concrete from roadway and related structures. The concrete material must be stockpiled on the property where it is generated if it is to be considered for either recycling or beneficial use. The material should be staged in Sampling Areas of segregated material based on any knowledge of contamination and sampled according to the Sampling and Analysis Protocol below in Section V. Otherwise the concrete must be managed as solid waste per the solid waste regulatory requirements at N.J.A.C. 7:26 et seq. All sampling must take place where the material is generated in accordance with the Department's Technical Requirements for Site Remediation at N.J.A.C. 7:26E, including the Field Sampling Procedures Manual.

- The disposition of all concrete material from contaminated sites with the Department's SRWMP's oversight at contaminated sites shall be determined by characterization of the material using the results of sampling and analysis conducted according to this guidance. The analytical results shall be compared to the Department's most recent Soil Cleanup Criteria (SCC).

- Concrete materials containing contamination entirely below the Department's Residential Direct Contact Soil Cleanup Criteria (RDCSCC) shall be considered eligible for transfer: 1) to a Class B Recycling Center holding a General or Limited Approval for recycling, 2) for recycling per the recycling site approval exemption requirements at N.J.A.C. 7:26A-1.4(a)2, 7, or 20, or 3) for direct unrestricted use on or off site in compliance with all other requirements. Compliance with any Federal, State, and local requirements is still required for all uses of concrete materials.

- Materials containing any contaminant above the Department's RDCSCC are considered solid wastes and must be managed in accordance with all statutory and Department regulatory requirements including, but not limited to, the full requirements for solid waste pursuant to the Solid Waste Regulations at N.J.A.C. 7:26 et seq. including classification as hazardous waste as necessary, or at specific Class B recycling centers authorized to accept the material, or beneficial use in accordance with Department requirements. Department guidance for conducting Beneficial Use Projects and a project application form are available at :

www.state.nj.us/dep/dshw/rtrp/bud.htm%20
<http://www.state.nj.us/dep/dshw/rtrp/bud.htm>
 These contaminated materials do not qualify for the following: 1) recycling at the State's Class B, or other, Recycling Centers holding a General Approval or at Class B Limited Recycling Centers approved in accordance with the requirements at N.J.A.C. 7:26A-3.7 unless the facilities are specifically authorized to accept the material; 2) recycling at sites operating per the recycling approval exemption requirements at N.J.A.C. 7:26A-1.4(a)2, 7, or 20; and, 3) for direct reuse or recycling on or off of the site of generation without Department approval.

- The sampling and analysis protocol specified in this document in Section V is based on defining distinct areas of the structure for initial in situ sampling or demolition based on known and suspected areas of contamination within or on a

NJ REGULATORY UPDATES (Continued)

structure, roadway or pad or any other "area of concern".

- Demolition shall be planned to prevent the mixing of areas of demolition that are contaminated with uncontaminated areas in the form of a demolition workplan. The site owner is obligated to develop and implement a plan to segregate contaminated materials from uncontaminated materials. Demolition practices should separate out materials that may be contaminated prior to and/or concurrent with demolition, for proper manifesting and/or disposal as solid waste.

- Detailed sampling protocols are included in the Guidance, which can be found at http://www.state.nj.us/dep/dshw/resource/guidance/concrete_sampling_022007.htm

- All sampling and sample analyses shall be conducted in accordance with the criteria and methods specified in the Technical Requirements for Site Remediation at N.J.A.C. 7:26E et seq. The Department sanctions composite sampling for the purposes of post-demolition materials characterized for management per this guidance. In situ samples shall always be discrete samples and not composited.

For all sites:

a. PCBs & PAHs :

Sample and analyze in all concrete and concrete fine materials. If the recycled concrete is going to be used as road base, the requirement to analyze for PAHs may be eliminated by the site case manager.

Based on site-specific factors, or as directed by the Department Case Manager:

b. TCLP, TAL/TCL+30, TPH:

If known or suspected at industrial, mining or other sites, or as directed by the Department's Case Manager for the site, analyze for VOCs, SVOCs, TCLP Pesticides, Herbicides; TAL/TCL+30, TPH, and as required on a case-specific basis RCRA TCLP including TCLP metals.

- Dioxins/Furans and Radionuclides as Naturally Occurring Radioactive Material (NORM) are to be conducted on a case by case basis.

- The owner of the site is responsible for compliance with this guidance, maintaining all documentation related to the demolition and material characterization process including demolition and sampling plans, analytical testing documentation and material disposition after self certification and filing self certification documents with the Department.

- A new certification statement is required for each load.

(Updated February 20, 2007)

DEP ISSUES STATEWIDE WATER QUALITY REPORT

Department of Environmental Protection Commissioner Lisa P. Jackson released a comprehensive report describing the health of New Jersey's waters.

"There is tremendous competition for water resources in New Jersey, and everyone relies on government to protect the quality of our supplies," Commissioner Jackson said. "This report identifies waterways that need improvement and provides a framework for clean up strategies."

The 2006 Integrated Water Quality Monitoring

Assessment Report released today is the most complete assessment of the state's water quality, providing detailed information obtained from expanded DEP monitoring.

For this report, DEP evaluated waters based on their ability to support seven categories of designated uses: aquatic life, recreation, drinking water supply, fish consumption, shellfish harvest, industrial water supply and agricultural water supply. Waters that do not meet current water quality standards for these specific uses are considered impaired, or are impacted by some level of pollution. Factors that impact one water use do not necessarily impair other uses.

While the results are mixed, DEP's monitoring data show that many waters are not meeting DEP's water quality goals for aquatic life, fish consumption and freshwater recreational uses. However, most waters in the state are healthy enough to support drinking water supply, shellfish harvesting, and ocean beach recreational uses.

The primary pollutants affecting New Jersey's water quality include toxic contaminants mercury and PCBs (polychlorinated biphenyls) in fish tissue, phosphorus (a nutrient) in freshwater, and disease-causing microbes (or pathogens) in our rivers, lakes and coastal waters.

As evidence of a positive trend, monitoring data show that between 1985 and 2004, nutrient concentration(s) and dissolved oxygen levels in freshwaters have improved or remained stable throughout the state. The levels of these water quality indicators are particularly important in sustaining healthy aquatic life.

LEGISLATION PASSED TO IMPROVE ENVIRONMENTAL SAFETY AT SCHOOLS AND CHILD CARE CENTERS

Governor Jon S. Corzine on January 11, 2007, signed legislation to help ensure that child care and educational facilities are environmentally safe for the children attending them.

Key provisions are:

- According to the new law, if a child care or educational facility located on an environmentally high risk site applies for a local building permit, it must meet two sets of criteria before the municipality issues the permit.

- Environmentally high risk sites include sites that were previously used for industrial, storage, or high hazard purposes; known or suspected to be contaminated; industrial sites that are subject to the provisions of the Industrial Site Recovery Act (ISRA); or used as a nail salon, dry cleaning facility or gasoline station. Historic agricultural sites are also included given the potential for the presence of pesticides.

- First, it must obtain certification for indoor environmental quality from the Department of Health and Senior Services (DHSS). Second, it must demonstrate that the site has been remediated to Department of Environmental Protection (DEP) standards and that a DEP-issued "no further action letter" has been obtained.

- Construction permits will be issued in cases where that permit is necessary to make changes to a facility in order to bring it into compliance with DHSS indoor environmental quality standards.

- The new law also amends the ISRA to provide the DEP with a broader range of penalty

enforcement options, including the authority to issue orders, impose civil administrative penalties, bring an action for civil penalties, or bring a civil action for injunctive or other relief. The bill would increase the maximum penalty that may be imposed for a violation of this measure from \$25,000 per day to \$50,000 per day.

- Finally, the new law requires industrial facilities to alert local municipalities when the facility closes or transfers ownership or operations. Also, they must also inform the municipality that the industrial facility's proposed remedial action plan is available to the municipality upon request. Both of these notifications are currently required by DEP.

This bill signing is the most recent action taken by the Corzine Administration in response to the incidents that occurred at Kiddie Kollege. Previously:

- The Governor directed cabinet officials in DEP, DHSS, the Department of Children and Families (DCF), the Department of Community Affairs, and the Department of Labor to form an interagency task force to investigate how to improve communication among state agencies and local officials. DEP was charged with establishing better safeguards, including improved tracking and prioritization of contaminated sites, and increased enforcement.

- To help ensure the safety of existing child care facilities, the DEP cross-checked its known contaminated site list with DCF's list of existing licensed child care centers to prioritize its inspections. The interagency task force continues to work to cross check and review state databases that can provide information about environmental conditions at currently licensed child care centers.

The Governor also directed DCF to mandate stricter regulations on child care center licensing as follows:

- The regulations also require license applicants to certify that any building or property proposed for the site of a child care center was not previously used for operations that could pose an environmental concern. This includes existing facilities who are applying for license renewals.

- If the site is considered an environmentally high risk site, the applicant must certify that the site has been remediated to DEP standards and meets environmental indoor air requirements established by DHSS.

- Finally, DHSS has worked extensively with Kiddie Kollege families and staff, organizing community outreach meetings, supplying educational materials, and providing testing and medical reviews for mercury exposure to anyone requesting them.

Penalties for not meeting the new requirements are from \$25,000 to \$50,000 per day.

RT is prepared to assist day care owners with meeting these new requirements. We have experience at a wide variety of high risk ISRA sites throughout the state and have completed work on indoor air projects at dozens of sites as well. For more information, call Justin Lauterbach or Joseph Lang at (856) 467-2276. You can also visit our web site at: www.rtenv.com for more information on the new requirements, including recently issued soil sampling requirements.

PENNSYLVANIA BULLETIN NOTICES

Availability of Modified Chapter 105 General Permit BWM-GP-11 and Reissuance of the 401 Water Quality Certification for the Maintenance, Testing, Repair, Rehabilitation or Replacement of Existing Water Obstructions and Encroachment	11/11/06
Erosion and Sediment Control and Stormwater Management for Oil and Gas Exploration, Production, Processing, Treatment Operations or Transmission Facilities	11/18/06
Proposed Mercury Emissions Reduction Rule - The Department submitted this plan to the USEPA.	11/6/06
Final Technical Guidance - Conventional Bonding for Land Reclamation – Coal. 11/25/06	
Water Resources Planning - The Environmental quality Board proposes to amend Chapter 109 and add Chapter 110. Chapter 110 establishes the requirements for registration of water users and recordkeeping and reporting of water withdrawal and use information.	12/2/06
Final Technical Guidance - Increased Operation and Maintenance Costs of Replacement Water Supplies (on All Coal and Surface Noncoal Sites)	12/2/06
Final Technical Guidance - The Use of Waste from Land Clearing, Grubbing and Excavation and the Use of Concrete or Other Clean Fill Materials Containing Protruding Rebar or Other Metal as Clean Fill. This policy provides guidance for the use of waste from land clearing, grubbing and excavation (LCGE) as clean fill, for the use of concrete containing protruding rebar as clean fill.	12/9/06
Environmental Laboratory Accreditation Proficiency Test Study Requirements	12/30/06
Final – Amendments - (relating to general provisions; standards for sources; and interstate pollution transport reduction)	1/07
Commercial Manure Hauler and Broker Certification	1/13/07
Pennsylvania Clean Vehicles Program Corrective Amendment - Renewal of General Permit No. WMGR038; Renewal and Availability	1/13/07
Environmental Quality Board Accepts Anti-Idling Petition for Study	1/17/07
Proposed Residual and Municipal Waste Composting General Permit	1/17/07
Coastal Resources Management Program: Approval of Routine Program Changes	2/17/07
Standards for Contaminants; Mercury	2/17/07
FINAL GUIDANCE - Training Provider Manual for the Pennsylvania Water and Wastewater System Operator Training Program	2/23/07
Water Supply Replacement-Mining Operations; Notice of Rates to be Used for Calculating Long-Term Operation and Maintenance Cost Bonds	3/3/07

FEDERAL REGISTER NOTICES

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

Environmental Protection Agency National Emission Standards for Source Categories From Oil and Natural Gas Production Facilities	<i>Federal Register -1/3 /07)</i>
Environmental Protection Agency Unregulated Contaminant Monitoring Regulation (UCMR) for Public Water systems Revisions; Final Rule	<i>(Federal Register -1/4 /07)</i>
Department of the Interior Abandoned Coal Refuse Sites; Proposed Rules	<i>(Federal Register -1/17/07)</i>
Environmental Protection Agency Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engineers; Revisions to Onboard Diagnostic Requirements	<i>(Federal Register -1/24/07)</i>
Department of the Interior Office of Surface Mining Reclamation and Enforcement, Interior. Pennsylvania proposes to revise its program to exclude coal extraction on government-financed construction projects from regulation under the surface coal mining regulations.	<i>(Federal Register -2/6/07)</i>
Environmental Protection Agency Air Pollution; Standards of Performance for New Stationary Sources: Fossil-Fuel-Fired Steam Generators and Electric Utility and Industrial-Commercial-Institutional Steam Generating Unites; Reconsideration, etc.; Proposed Rule	<i>(Federal Register -2/9 /07)</i>
Environmental Protection Agency Control of Hazardous Air Pollutants From Mobile Sources; Final Rule EPA is adopting controls on gasoline, passenger vehicles, and portable fuel containers (primarily gas cans) that will significantly reduce emissions of benzene and other hazardous air pollutants.	<i>(Federal Register -2/26 /07)</i>

KEY HIGHLIGHTS

FEDERAL UPDATES

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CERCLA Model Agreement, pg. 16
Train, Ships Emissions Reductions, pg.18

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