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STATE ENVIRONMENTAL AGENCIES LACK LEGISLATIVE SUPPORT...NEW FOCUS ON ACCOUNTABILITY

The state Departments of Environmental Protection (DEP) in Pennsylvania and New Jersey both need more staff to support redevelopment projects in urban areas. Governors and legislatures in both states need to better support our agencies on this very important aspect of urban redevelopment. Although DEP management in both states are doing their very best to manage the situation, adjustments in priorities can only go so far when the underlying problem is a insufficient number of staff. In addition to staff shortages, low permit review fees are compounding the problems.

Our experience in dealing with DEP in both states day to day finds that:

• Report review times are too often going down to the wire (where there are statutory deadlines), or simply take too long.

• DEP staff lack adequate time to focus on complicated projects and work with consultants. Staff don't have the time to undertake the professional interaction that is so critical on more complicated Brownfields sites.

• In Pennsylvania, report fees are unrealistically low, and the legislature has turned down initiatives to increase fees.

• In New Jersey, the state Brownfields Program finds itself overloaded, but efforts are underway to increase Brownfield Programs staff.

Both states are now undertaking efforts to increase consultant accountability, because there is a sense that project review staffs simply do not have time to review inadequate reports multiple times, so "Notices of Deficiency" of reports will more frequently occur in the future. In New Jersey, many reports will be screened by the "Office of Accountability", and early rejection of reports which do not pass muster will occur. In Pennsylvania, consideration is being given to setting up a Board, which will review reports submitted anonymously (the identity of the person or organization preparing the report will not be revealed to the Board). (continued on page 2)

FINAL ALL APPROPRIATE INQUIRY RULES AND INCREASE IN WORKOUT ACTIVITY RECEIVING LENDERS' ATTENTION

This Fall, both the All Appropriate Inquiry EPA Rule and increased workout activity are receiving the attention of banking and lending facilities. Workout occurs when those to whom a financial institution has lent money are no longer paying the debt on schedule. The bank attempts to "workout" a repayment solution with the customer. Due to anticipated changes in the economy, banks are preparing for increased "workout," as consumers, commercial, and industrial entities fall behind on mortgage obligations. High levels of workout activity have not been experienced for more than a decade and knowing financial industry trends is important to environmental consultants because workout projects require a different type of environmental work than do other projects.

Lenders who are going to consider potential foreclosure of a property, need to know at the time of assignment of the account to "workout" answers to such questions as:

• Is the facility accumulating waste because there are financial difficulties?

• Are there underground storage tanks present?

• Are there large quantities of "in process" hazardous materials, substances, or wastewater, which could cause immediate expenditures if foreclosure and/or facility cessation of operations occur?

Throughout the United States, although lenders are considered "innocent" when it comes to environmental obligations, there is a very fine line associated with control of expenditures and approvals, and, when many foreclosures occurred in the early 1980's. lenders who had not taken the time to understand the environmental condition of facilities found themselves subject to Orders from state or federal environmental agencies, to make sure that any on-site materials were properly managed at the time of the facility closure, and, to make sure that pumps were tanked out, so no releases of contaminants would occur while the facility was closed, and subsequently remarketed, for future use.

In some instances, "facility decommissioning" activities, would total into the hundreds of thousands of dollars, and lenders considering foreclosure during the workout period now typically will have an environmental consultant review operations to determine:

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• decommissioning needs

• prevention of environmental issues which might delay or would have to be addressed as part of the future sale and productive e reuse at the facility.

RT has handled a large number of decommissioning projects involving foreclosure for lenders in the eastern United States. Our in-depth experience in all types of industrial and commercial operations allows us to identify key issues, usually after an initial walk-through, and, report back to lenders early in the workout period. Lenders need to know environmental information early because, in some instances, an environmental review may reveal that it is not financially possible to get through the workout period, due to the state of environmental conditions or waste management needs at the site. RT, as part of our Spring Seminar Program, will be focusing on workout environmental reviews, and our Spring Seminar schedule will be announced shortly after the first of the year.

On the Environmental Due Diligence side, increasing numbers of clients are requesting All Appropriate Inquiry scoping in lieu of Phase I Environmental Site Assessments. The Phase I Environmental Site Assessment protocol is actually changing to match the AAI Rule protocol on November 1. Experience over the last year shows that for the majority of commercial

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FINAL ALL APPROPRIATE INQUIRY RULES AND INCREASE IN WORKOUT ACTIVITY RECEIVING LENDERS' ATTENTION

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facilities, there is an increase in due diligence costs of about \$300 per site, with some variance of costs between facilities. For facilities with a long history of industrial operations, substantial numbers of tanks, or changes in industrial and commercial uses over time, RT recommends that real estate professionals and lenders allow at least a month for environmental due diligence, due to the need to review state, federal, and local files, which cannot be expedited in some cases.

RT has found that state and federal regulators are highly cooperative in providing added information needed under the AAI Rule, but local reviews, typically involving pulling archives, are not as easy to expedite, where transactions must move quickly.

For more information on the AAI Rule, visit our website at www.rtenv.com

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Where deficiencies are identified, the person preparing the report, the chairman or highest official of the consulting firm, as well as the person sponsoring the remediation will be notified. Consulting firms are responding to initiatives in both states by completing internal peer reviews minimizing the chances that reports will be rejected.

In Pennsylvania, some of the difficulties in staffing are overcome through the establishment of Brownfields Action Teams, which coordinate designated key project permitting and regulatory reviews in each DEP office. New Jersey uses a similar approach, but it is only applied on a few projects. Review times for reports, even at older sites, can unfortunately run into timeframes of six months to a year or more such delays send the wrong signal to redevelopers and responsible parties, when DEP's stated goals are to get tougher and facilitate cleanups.

The solutions are simple:

• Governors and legislatures in both states should give full support to their environmental agencies and provide full and adequate regulatory professional staffing. Regulatory staff must have time to call consultants and visit sites as needed to provide professional interaction needed to do the job right and not just complete "desk top office reviews".

• Review fees should reflect the cost of regulatory reviews and premium fees should be considered for expedited reviews.

• Environmental consultants should rise to the occasion to make their reports as focused and as technically complete as possible to ease the regulatory review workload by minimizing the need for report re-submittals.

There has been some recent discussion, that due to the fall off in home building, that there may be fewer Brownfield projects. However, a more careful examination of the actual situation reveals that both Pennsylvania and New Jersey have very strong "anti-sprawl" initiatives, and, those initiatives are not likely to go away anytime soon. Although the residential building pace may slow down a bit due to national economic trends, the reality is that Brownfield sites with existing infrastructure are an increasing share of the overall number of commercial and residential projects. The redevelopment workload is likely to continue to increase, and not decrease for Brownfield sites. Many commercial and residential builders are actually finding out, with current regulatory and economic incentives in-place, that Brownfields site projects can be as financially attractive as "Greenfields" sites formerly were.

• As redevelopment trends continue in both states, the public needs to support and call for full staffing of state level environmental agencies, as a very important key aspect of redevelopment initiatives. There is no substitute for environmental regulators working with environmental consultants to collaborate, and do the projects right, but staff shortages and unrealistically low review fees don't help anyone - the state, or the remediating parties. Full staffing and realistic fees are the answers we all need to facilitate redevelopment in a timely, cost effective and environmentally protective manner. Let's hope our political leaders get the message, because full support of redevelopment efforts is clearly needed.

- Gary Brown

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VAPOR INTRUSION – MORE OF A PROBLEM THAN FIRST THOUGHT

The New York Environmental Lawyer, Spring 2006 Edition has an article by Walter Mugdan which is receiving much attention in environmental circles.

Based on findings at an Endicott, NY site:

• IAQ problems can occur even when groundwater VOC concentrations are low and the widely used Johnson-Ettinger model may under-predict indoor air VOC levels in some situations.

· Foundations and floors can act as confining layers with concentrated VOCs just beneath them.

• Attenuation factors vary widely and no single ratio can be applied to all sites. Preferential pathways are an important issue.

- Indoor and subslab sampling is more valid than soil gas sampling or modeling.
- · Vapor intrusion can persist long after groundwater has been remediated to "clean" levels.

The author points out that radar systems can be used to control vapor intrusion, and institutional controls are needed as a part of an effective remediation program.

For a copy of the article or a Power Point Presentation on Vapor Intrusion Issues, go to: "http://www.nysba.com" www.nysba.com (click on publications/section/environmental).

PA UPDATES

PENNSYLVANIA SPENDS \$4 MILLION TO RETAIN WATERSHED SPECIALISTS

Pennsylvania Governor Edward Rendell has announced more than \$4 million in continued support for 66 conservation district watershed specialist positions throughout the state.

The two-year grants, awarded by the governor under the administration's Growing Greener program, will enable conservation districts to plan ahead on watershed restoration and stream improvement projects knowing that funding for these key positions is secure.

"Local efforts are absolutely essential to the Growing Greener partnership," Governor Rendell said. "Watershed specialists are an invaluable connection to restoring watersheds and promoting environmental protection at the local level - helping us achieve continued success in cleaning up the environment and revitalizing our local communities."

The Conservation District Watershed Specialist Program began in June 2000 in response to a milestone in Pennsylvania's Nonpoint Source Management Program's 1999 Update.

The milestone was to establish a "statewide system of conservation districts with trained staff to implement programs at the local level to minimize nonpoint source water quality impacts by 2004."

Growing Greener now supports watershed specialist positions that cover watersheds in 66 of the commonwealth's 67 counties and provide technical assistance and coordination of watershed restoration and protection efforts.

Pennsylvania's water resources include 86,000 total miles of rivers and streams.

Watershed specialists help local groups protect and improve their watersheds; provide expert advice to farmers and landowners for conservation practices: work with Department of Environmental Protection regional watershed coordinators on all proposals and projects; and help support local Growing Greener projects in their counties.

REVISIONS TO PENNSYLVANIA HAZARDOUS WASTE REGULATIONS

A number of revisions are in process for Pennsylvania DEP Hazardous Waste Regulations. The most significant of these are as follows:

· Proposed revision includes the Federal Standardized Permit for RCRA Hazardous Waste Management Facilities. This will mean that future applications will be more simplified than current hazardous waste facility applications are in Pennsylvania.

· Federal Standardized Permit provisions for

certain hazardous waste management facilities that store or non-thermally treat hazardous waste at the site of generation will also be included. Included in the provisions for a Standardized Permit will be those facilities who receive hazardous from off-site generators under the same ownership.

· For future bonding requirements, there will be an option to use an insurance policy as collateral.

• RCRA Corrective Action activities could be taken over by Pennsylvania, which will centralize all aspects of site remediation under the One Cleanup Program (Memorandum of Understanding agreement), making Brownfields redevelopment at RCRA Corrective Action sites in the Commonwealth more feasible.

• The Federal Uniform Manifest Rule that simplifies the manifest system is also planned to be used in Pennsylvania.

· New universal wastes including discarded oil based finishes and used for the graphic solutions containing silver would be added as universal waste.

· Simplified reporting requirements for new universal waste will also be proposed, as well as simplified reporting requirement under an April 4, 2006 Federal Register rule revision.

We will keep you informed in future editions of the RT Review as these proposed revisions become final.

PADEP WRESTLES WITH AIR ISSUES

PADEP is wrestling with a number of federal mandate and/or NAAQs implementation plan issues, as follows:

The Environmental Quality Board (EQB) was to consider at its September meeting the final rulemaking. The final-form regulation:

· Deletes the National Low Emission Vehicle (LEV) requirements.

• Postpones compliance with the CAL LEV until model year 2008.

· Allows a 3-year early credit-earning period for complying with the non-methane organic gas fleet average.

· Adds a "titling" requirement for passenger cars and light-duty trucks.

· Deletes the exemption proposed for vehicles purchase out of state.

PADEP's draft Clean Air Interstate Rule (CAIR) concepts include:

· Allow affected EGU owners and operators to participate in the EPA's Cap and Trade Program.

· Achieve NOx and SOx emission reductions that are equivalent to the CAIR.

· Maximize the emission reduction co-benefits.

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· Support waste coal and co-generation.

· Support Energy Efficiency and Renewable generation.

Nonattainment New Source Review Amendments to be considered by the EQB in November include:

• Add certain definitions including:

°Baseline actual emissions, projected actual emissions, significant emissions increase, net emissions increase

· Revise certain definitions including:

°Begin actual construction, Federally enforceable

• Postpone adoption of PM2.5 NSR requirements until EPA promulgates the PM2.5 implementation rule.

· Include hourly and daily emission test criteria, if the three-tiered (hourly, daily and annual) applicability test is retained.

· Provide an amnesty period for the generation of certain types of emission reduction credits.

°PM-10, PM2.5 and SO2

•Allow non-EGU owners and operators to voluntarily opt into the CAIR.

• Remove non-EGUs from the Ozone Season Budget.

· Replace the EPA NOx allowance allocation methodology.

°Heal Input v. Output

· Provide allocations for energy efficiency and renewable energy projects.

Compliance deadlines for affected DGUs would be identical to the following CAIR timeframes:

- NOx Reductions
 - °Phase 1 2009-2014

°Phase 2 – 2014 and each year thereafter

- SO2 Reductions
 - °Phase 1 2010-2014

°Phase 2 – 2015 and each year thereafter

• The presumptive Lowest Achievable Emission Rate (LAER) provision is not approvable; LAER must be the more stringent of either:

°A limit in a SIP for a class or category or sources:

°An emissions limit that has been achieved in practice.

> **New Rules - Stormwater Plan** Approvals See 11/8 PA Bulletin

PA UPDATES (Continued)

• The baseline actual emissions provision varies significantly from the Federal minimum requirement.

• The same baseline period should be allowed for all emission units associated with a project; different baselines for different pollutants should be allowed.

• The PAL reporting and monitoring provisions conflict with the Federal NSR requirements.

Permit Streamlining – Pilot Program:

•July 2005: Voluntary pilot program launched to expedite the processing of "plan approval" applications.

°Pre-application meetings held for applicants opting into the program.

°Applicants provide timely responses to technical deficiency letters.

July 2006 – Pilot Program extended.

°Revisions to the Money-back Guarantee

Program will be recommended.

 August 30, 2006: Memorandum of Understanding fully executed by EPA/FLMs/DEP.
 °Establishes framework to expedite the review

of PSD applications •November 2006: EQB consideration of regulato-

•November 2006: EQB consideration of regulatory amendments.

• December 2006: Test runs of the on-line "Request for Determination" (eRFD) system.

°Processing of RFD applications and approval of exempt activities, upon request.

•Designed to ensure statewide consistency • February 2007: Pilot program available to applicants

Items up for Final Rulemaking in the coming months:

Draft Final Emission Standards for New EGUs • PC-Fired – output based emission standard

°0.011 lb/GWh or 90% capture efficiency • CFB burning coal – output based emission standard

°0.011 lb/GWh or 90% capture efficiency

• CFB burning waste coal – output based emission standard

°0.0096 lb/GWh or 95% capture efficiency

• IGCC – output based emission standard °0.0048 lb/GWh or 95% capture efficiency The Draft Final Regulation:

• Adds certain definitions recommended by EPA.

• Adds a provision to allow "fuel pretreatment" credit for emission standard compliance.

• Deletes provisions allowing compliance presumptions and preferences for bituminous coal.

• Allows emissions averaging to demonstrate compliance with the annual emission limitation requirements.

• Clarifies that an approved alternate emission standard and/or compliance schedule would not relieve an EGU owner/operator from the requirements of §§123.207 – 123.215.

•Reduces Phase 1 "hard" cap to 3,558 lbs (56,928 oz.)

•Retains Phase 2 "hard" cap of 1,404 lbs. (22,464 oz.)

• Provides options for demonstrating compliance with the annual emission limitation:

°Unit-by-unit basis.

°Facility-wide emissions averaging.

°System-wide emissions averaging.

• Allows the owners/operators of new EGUs to petition for supplemental allowances.

• Clarifies the applicability of the federal NSPS

and state-specific mercury requirements. °NSPS will also apply to new EGUs

• Clarifies that the Integrated Gasification Combined Cycle (IGCC) exemption applies solely for Phase 1 emission standards.

Next Steps: Mercury Final Rulemaking • Consult with the CAC on September 19, 2006. • Finalize "Decision" and Comment and Response Documents.

Hold AQTAC meeting in late September 2006.
Present final rulemaking to EQB on October 17, 2006

We will keep you informed as these rules move toward finalization.

TAX BREAKS PROPOSED FOR PA FARMERS WHO PROTECT WATER QUALITY

A new legislative proposal that would give tax credits to farmers and businesses that sponsor farm projects to help reduce water pollution across Pennsylvania has won the support of the Chesapeake Bay Foundation, the largest conservation organization dedicated solely to saving the Chesapeake Bay watershed.

The bipartisan Resource Enhancement and Protection Act of Pennsylvania (REAP) would provide unprecedented assistance to farmers in the form of state tax credits to install best management practices to reduce water pollution. The credits would help farmers install proven water pollution control practices while remaining profitable.

The Chesapeake Bay Foundation (CBF) will promote the legislation to the farming community and the general public at this years Ag Progress Expo, Pennsylvania's largest outdoor agricultural exposition.

The bills provide personal and business state tax credits ranging from 25 to 75 percent of the cost to install best management practices like barnyard improvements, riparian buffers, stream fencing and other practices. The development of manure management plans on farmlands, and forested buffers on non-farm lands, would also be eligible for credit.

(ENS – 8/14/06)

PENNSYLVANIA STIMULATES ALTERNATIVE FUEL PRODUCTION

Pennsylvania's first ethanol plant will be built in Clearfield County, Governor Ed Rendell announced. BioEnergy International, LLC, of Norwell, Massachusetts will build and operate the plant, making ethanol from corn.

Russia's largest oil company, Lukoil, will serve as the exclusive distributor of the output, which is expected to be 108 million gallons of ethanol per year.

The \$250 million state investment also includes \$70 million for the development of a pilot-scale cellulosic ethanol demonstration plant to make the fuel from starches in plant products such as wood chips and agricultural waste.

Studies show that cellulosic ethanol could dramatically reduce fossil fuel use by up to 90 percent and yield large reductions in greenhouse gas emissions.

In addition, the Department of Environmental Protection (DEP) is now accepting project applications for the Alternative Fuels Incentive Grant Program, AFIG, which finances the production and use of clean burning fuels in Pennsylvania. By emphasizing investments in ethanol and biodiesel, the grants support Governor Rendell's PennSecurity Fuels Initiative to produce and use 900 million gallons annually of clean, domestic fuel - an amount equal to what the state is expected to import from the Persian Gulf 10 years from now.

DEP Secretary Kathleen McGinty said, "To achieve energy security, we must invest in the infrastructure to produce and distribute alternative fuels. As we build the sources and markets for alternative fuels, we will create jobs in Pennsylvania, promote our agricultural communities and clean the air we breathe at the same time."

Alternative fuels emit reduced amounts of particulate matter than burning petroleum, less carbon monoxide and fewer of the pollutants that contribute to ground-level ozone, or smog.

(ENS - 8/21/06)

PENNSYLVANIA DOLES OUT CLEAN ENERGY GRANTS

Governor Edward G. Rendell announced at \$6.4 million investment in 16 clean energy projects. Rendell said the projects will create 316 permanent and up to 280 construction jobs in the Commonwealth, as well as to leverage more than \$38 million in private funds.

"Pennsylvania is making strategic investments to stimulate the growth of clean energy technologies that can power our future without leaving us in the grip of foreign governments or choking on harmful emissions," Rendell said. "By partnering with Pennsylvania companies that are advancing solar power, biofuels and other forms of renewable energy, as well as building clean fossil technologies, we are creating opportunities to put Pennsylvanians to work now and for years to come."

According to state officials, energy output from the projects, which were approved by the Pennsylvania Energy Development Authority (PEDA), will generate an estimated 15,710megawatt hours of electricity, enough to power about 1,600 Pennsylvania homes, and produce the equivalent of enough natural gas to supply almost 2,500 homes for a year. Another 208,000 million British thermal units will be conserved. The projects also have the potential to produce 115-million gallons of biofuel.

The 16 projects will receive grants for a variety of clean fuels and green power projects using sources such as solar, fuel cells, biofuels, landfill gas, wind and biomass. The funding also aims to boost Pennsylvania businesses by putting alternative energy technologies to work for them, bolster public infrastructure and support additional income streams for Pennsylvania farmers.

Five of the projects include solar power, with a total public-private investment of almost \$3.8 million. This latest round of funding will also support the installation of a two-megawatt fuel cell at U.S. Steel's Mon Valley facility, fueling it using surplus hydrogen-rich gas from coke oven operations. In addition it will provide some \$390,000 for a fuel cell manufacturing center, \$350,000 for a school to install a biomass-fired boiler heating system and \$1 million to construct rail facilities for a \$180 million ethanol plant.

(ENS - 10/6/06)

TECHNOLOGY UPDATES

CHEMICAL IN AIR FRESHENERS IMPAIRS LUNG FUNCTION

A chemical compound found in many air fresheners, toilet bowl cleaners, mothballs and other deodorizing products, may be harmful to the lungs, according to a new study by U.S. government researchers.

Human population studies at the National Institute of Environmental Health Sciences (NIEHS), a part of the National Institutes of Health, found that exposure to a volatile organic compound called 1,4 dichlorobenzene (1,4 DCB) may cause "modest reductions" in lung function.

"Even a small reduction in lung function may indicate some harm to the lungs," said NIEHS researcher Stephanie London, M.D., lead investigator on the study. "The best way to protect yourself, especially children who may have asthma or other respiratory illnesses, is to reduce the use of products and materials that contain these compounds."

NIEHS researcher Stephanie London, M.D., a specialist in genetic epidemiology, was lead investigator on the 1,4 DCBstudy.

Volatile organic compounds, VOCs, are compounds emitted as gases from thousands of commonly used products, including tobacco smoke, pesticides, paints, and cleaning products. VOCs are also released in automotive exhaust.

This particular VOC, 1,4 DCB, is a white solid compound with a distinctive aroma, similar to mothballs. It is typically used as a space deodorant in products such as room deodorizers, urinal and toilet bowl blocks, and as an insecticide fumigant for moth control.

The researchers examined the relationship between blood concentrations of 11 common volatile organic compounds and lung function measures in a representative sample of 953 adults 20 to 59 years old. Four measures of lung function were used in the analyses.

They found that of the common VOCs analyzed, including benzene, styrene, toluene, and acetone, only the compound 1,4 DCB was associated with reduced lung function.

This effect was seen even after careful adjustment for smoking.

The researchers found that 96 percent of the population sampled had detectable 1,4 DCB blood concentration levels. African Americans had the highest exposure levels and non-Hispanic whites the lowest.

"This research suggests that 1,4-DCB may exacerbate respiratory diseases," said NIEHS Director David A. Schwartz, M.D, who is also a specialist in environmental lung disease. "As part of the new disease-focused approach at NIEHS, researchers will use this information to better understand the pathogenesis of respiratory diseases."

(ENS) - 7/27/06)

GREENER COMPUTERS AND MONITORS WILL SOON HIT THE MARKET

More environmentally friendly computer equipment will soon be available to large volume purchasers thanks to manufacturers like Dell, HP, and others that now have products that meet the Electronic Products Environmental Assessment Tool (EPEAT) standard. EPEAT-registered computer products have reduced levels of cadmium, lead, and mercury to better protect human health, and are easier to upgrade and recycle, in addition to meeting the government's Energy Star guidelines for energy efficiency.

"These new environmental standards can guide the manufacturing of green computers, laptops, and monitors," said James Gulliford, assistant administrator for the Office of Prevention, Pesticides and Toxic Substances. "Now purchasers can factor environmental considerations into their decisions when choosing computer equipment."

EPEAT, a project funded through a grant by EPA and managed by the Green Electronics Council (GEC), promotes continuous improvement in the environmental design of electronic products and informs purchasers of the environmental criteria of electronic products. EPEAT may eventually expand to include individual consumer purchasers.

EPA has estimated that over the next five years, purchases of EPEAT registered computers will result in reductions of:

*- More than 13 million pounds of hazardous waste

More than 3 million pounds of non-hazardous waste

More than 600,000 MWh of energy – enough to power 6 million homes*

*More information about the EPEAT standard, the database of EPEAT registered products and the participating manufacturers: HYPERLINK "http://www.epa.gov/epp/pubs/products/epeat.htm" http://www.epa.gov/epp/pubs/products/epeat.htm.

(EPA – 7/24/06)

BURNING FOSSIL FUELS ACIDIFIES OCEANS, ERODES CORAL REEFS

The emission of carbon dioxide from burning fossil fuels worldwide is making the oceans more acidic, eroding the calcium in corals and other marine organisms, the way osteoporosis thins human skeletons. New research published today predicts that calcification rates will decrease as much as 60 percent within the 21st century.

The report, "Impacts of Ocean Acidification on Coral Reefs and Other Marine Calcifiers," is authored by a group that includes scientists from Australia, Canada, France, Germany, Japan, Monaco, New Caldonia, and the United States. It documents that oceans worldwide absorbed about 118 billion metric tons of carbon between 1800 and 1994. This is altering ocean chemistry more than at any time for eons, the scientists say.

"This is leading to the most dramatic changes in marine chemistry in at least the past 650,000 years," says Richard Feely, one of the authors and an oceanographer at the National Oceanic and Atmospheric Administration's (NOAA) Pacific Marine Environmental Laboratory in Seattle.

Oceans are naturally alkaline, and they are expected to remain so, but the interaction with carbon dioxide is making them less alkaline and more acidic.

The increased acidity lowers the concentration of carbonate ion, a building block of the calcium carbonate that many marine organisms use to grow their skeletons and create coral reef structures.

As a result, reef structures are threatened because corals may be unable to build reefs as fast as erosion wears away the reefs.

"It is clear that seawater chemistry will change in coming decades and centuries in ways that will dramatically alter marine life," says Joan Kleypas, the report's lead author and a scientist at the National Center for Atmospheric Research in Boulder.

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"But we are only beginning to understand the complex interactions between large-scale chemistry changes and marine ecology. It is vital to develop research strategies to better understand the long-term vulnerabilities of sensitive marine organisms to these changes," Kleypas said.

The 60 percent estimated decrease in calcification is acknowledged to be "oversimplified" and it may not fully consider other environmental and biological effects such as rising water temperature and biological adaptation, organism fitness, community structure, and ecosystem functioning, the report states.

"Any of these factors could increase or decrease the laboratory-based estimates, but it is certain that net production of CaCO3 [calcium carbonate] will decrease in the future," says the report.

This report follows an April 2005 workshop funded by the National Science Foundation and NOAA, and hosted by the U.S. Geological Survey Integrated Science Center in St. Petersburg, Florida.

(ENS - 7/5/06)

TERRE HILL CONCRETE PRODUCTS OFFERS STORMWATER RUNOFF SOLUTIONS

Terre Hill Concrete Products, a Pennsylvania company, offers stormwater management treatment systems which are designed to comply with NPDES Phase II and related Pennsylvania Department of Environmental Protection Regulations. On one recent project, Terre Hill's stormwater management systems were used at the Pennsylvania Turnpike Peter Camiel Service Deposit, a Terre-Kleen TK18 treatment device was installed in lieu of stormwater management basins. Cost effective infiltration systems were installed at the site as well, allowed continued surface use, which would not have been possible were basins installed.

The line of products offer cost effective stormwater management, including the use of inclined plate separation, easy vacuum truck removal of oil and grease, and faster installation than conventional stormwater management systems. The system is more environmentally protective than conventional chambers used for gist and oil separation, because conventionally designed chambers with weir overflows wash out contaminants into basins, or into receiving water courses, when high intensity rainfall causes high stormwater flow.

The line of products is especially of interest at Brownfields and urban sites, and is expected to receive much national attention. Information on the line of products will also be presented at this fall Associated Pennsylvania Constructors Conference in November, at the Hershey Lodge.

For more information on the Terre Kleen system, call Terre Hill Concrete Products at 800-242-1509 or send an E-mail to: "mailto:info@terrehill.com" info@terrehill.com.

MELTING RUSSIAN PERMAFROST COULD ACCELERATE GLOBAL WARMING

Melting permafrost in Siberia is releasing five times the amount of the potent greenhouse gas methane than previously thought, according to a study published by American and Russian scientists. The study, published in the journal "Nature," adds to concern that global warming is causing changes in the environment that will accelerate the greenhouse effect.

The research team recorded the bubbling of methane at two thawing lakes in northern Siberia using aerial surveys, remote sensors and year-round measurements.

The scientists found the expansion of the lakes between 1974 and 2000, fueled by a period of regional warming, increased methane emissions by 58 percent.

The melting permafrost releases carbon-rich remains of plants and animals. These remains sink to the bottom of the lakes, decompose and produce methane that bubbles up to the surface and into the atmosphere.

The methane released dates back to the Pleistocene age - some 40,000 years ago, according to study coauthor Jeff Chanton, a scientist with Florida State University.

The researchers point to the thawing permafrost along the margins of the thaw lakes, which comprise 90 percent of the lakes in the Russian permafrost zone, as the primary source of methane released in the region.

More than 4 million tons of methane is being released by Siberia's array of lakes and wetlands, the researchers said, a figure that is 10 to 63 percent higher than previous estimates.

Although nowhere near as prevalent or long-lasting as carbon dioxide, methane is a far more potent greenhouse gas, with more than 20 times the heattrapping effect of carbon dioxide.

Methane is released by humans through burning of grasslands, forest and wood fuel as well as by intense livestock activity, rice cultivation, and industrial sources - and there is little doubt these activities have boosted methane levels in the atmosphere.

Last year American scientists reported that permafrost is melting across the Northern Hemisphere, altering ecosystems and damaging roads and buildings across Alaska, Canada, and Russia. They predicted that more than half the area covered by this topmost layer of permafrost could thaw by 2050 and as much as 90 percent by 2100.

(ENS - 9/7/06)

CLIMATE CHANGE MAY HAVE SPARKED CIVILIZATION

Early civilizations emerged primarily because of severe climate change, according to new research released today. Natural changes to the climate diminished natural resources and forced previously transient people into close proximity in areas where water and productive land was still available, the study's author said.

"Civilization did not arise as the result of a benign environment which allowed humanity to indulge a preference for living in complex, urban, 'civilized' societies," said Nick Brooks, a climate scientist at the University of East Anglia's Tyndall Center for Climate Change Research. "On the contrary, what we tend to think of today as 'civilization' was in large part an accidental by-product of unplanned adaptation to catastrophic climate change. Civilization was a last resort - a means of organizing society and food production and distribution, in the face of deteriorating environmental conditions."

Brooks presented his findings today at the British Association for the Advancement of Science's Festival of Science in Norwich.

His research is largely based on analysis of archaeological remains of the Garamantian civilization in southwestern Libya. The civilization emerged in the wake of changing rainfall patterns 3,000-5,000 years ago, Brooks said.

He contends similar connections can be linked to the emergence of early civilizations in Egypt, South Asia, South America and China between 6,000 and 4,000 years ago, when global climate changes caused a weakening of monsoon systems resulting in increasingly arid conditions. The changes in the climate were caused by natural fluctuations of the Earth's orbit, Brooks said.

(ENS - 9/7/06)

EASTERN SKIES CONTINUE GETTING CLEANER

Power plants and other large facilities in the East cut ozone-forming emissions 11 percent between 2004 and 2005 under an EPA cap and trade program. The latest analysis illustrates that the agency's NOx Budget Trading Program continues to reduce the amount of the ozone-forming pollutant nitrogen oxide (NOx) released into the nation's skies.

"EPA's success in reducing air pollution from power plants and manufacturing facilities proves we are not blowing smoke. Long term trends show that our nation's air is cleaner than over a generation ago, and continues to improve under the Bush Administration's innovative clean air policies," said EPA Administrator Stephen L. Johnson. "By keeping pace in our steady march toward cleaner air and healthier lives, America is breathing easier because of President Bush's commitment to improving our air quality."

The analysis, conducted as part of an annual report on the NOx Budget Trading Program, shows that eastern states have reduced NOx emissions by 57 percent since 2000 and by 72 percent since 1990. In addition, based on 2003-2005 air monitoring data, nearly 70 percent of the areas that did not meet the national air quality standard for 8-hour ozone in 2004 now have better air quality than the standard requires. The NOx Budget Trading Program is the major contributor to these improvements. The Bush Administration's Clean Air Interstate Rule will continue this success with further reductions in ozone-forming emissions.

(EPA - 9/14/06)

DO YOU HAVE PCBs IN YOUR CAULK?

PCBs were used in some caulks throughout the US until they were banned in 1997. PCBs made the caulk sticky and easier to apply to window frames.

An investigation of 24 buildings in the Boston area by the Harvard School of Public Health http://www.ehponline.org/docs/2004/6912/abstract .html found that one-third contained caulking materials with PCBs content exceeding 50 ppm by weight, which is the EPA limit above which this material is considered to be PCB bulk product waste. These buildings included schools and other public buildings. In a university building where similar levels of PCB were found in caulking material, PCB levels in indoor air ranged from 111 to 393 ng/m3; and in dust taken from the building ventilation system, < 1 ppm to 81 ppm.

The greatest hazard created by the caulk could be in dust. In one building the air sampling was sufficiently high that the EPA mandated removal of the caulk. According to the report, "Buildings that were constructed or refurbished before 1977 may still contain caulking with elevated levels of PCBs. Caulking has been analyzed only rarely for PCB content; therefore, it is poorly recognized as a hazard."

The study said the PCB-laden caulk "may pose a significant public health hazard" and recommended that testing be conducted where it is likely such caulk will be found, along with "comprehensive control" programs to eliminate it.

(Environmental Tip of the Week – 9/18/06)

NEW ENERGY PERFORMANCE STANDARDS WILL LEAD TO BETTER PLANT EFFICIENCY

The first-ever energy efficiency ratings for corn refineries and cement plants will enable those industries to cut energy usage, save money and prevent greenhouse gases.

The plant Energy Performance Indicators (EPIs) made available by EPA as part of a national energy performance rating system, are the first of their kind for these manufacturing facilities. They provide critical information for driving energy savings by enabling the comparison of energy efficiency for a specific facility in the United Stats to that of the entire industry.

"By making smart energy choices, millions of Americans are saving billions each year," said EPA Administrator Stephen L. Johnson. "President Bush and EPA are improving our nation's environmental and energy outlook, in part, by offering leading U.S. industries efficiency solutions that make sense for our environment and their bottom lines."

U.S. cement manufacturers and corn refiners spend more than \$2 billion annually for 626 trillion british thermal units of energy. If energy use for both of these industries was reduced by 3 percent, the energy saved could produce electricity for 187,000 households – preventing the emissions of more than 3 billion pounds of greenhouse gases.

Based on the input of simple plant-level information, the energy efficiency of cement plants and corn refineries is scored from 1 to 100 and compared to the average and "efficient" plants in the industry. In order to receive an efficient rating, a plant must achieve a score of 75 or better. Now, corporate energy directors can establish meaningful goals for reducing energy use in these plants and better manage their companies' energy costs.

The EPIs were developed as part of an Energy Star Industrial Focus with the cement and corn refining industries. EPA worked with the cement and corn refining industries to develop Energy Star plant energy performance indicators. The performance indicators measure an entire plant's energy use, a critical step in strategic energy management. The indicators enable companies to determine how efficiently each plant is using energy as compared to the industry as a whole, and whether better energy performance could be expected.

EPA works closely with manufacturing industries to promote effective energy management and

provides tools and assistance necessary to reduce energy use. Many participating companies have reported substantial environmental, cost and energy savings while receiving recognition for their leadership.

(EPA – 8/14/06)

WATER PICKS UP CONTAMINANTS FROM HIGH-DENSITY POLYETHYLENE PIPE

Long-term use of high-density polyethylene drainage pipes could result in prolonged contamination of the water table as well as ecological and environmental damage, a Princeton study warned today.

The study finds that volatile organic carbons are leached into water as a result of high-density polyethylene pipe (HDPE), widely used in the construction of drainage systems, storm sewers, commercial, residential and highway drainage as well as in mining and agriculture.

HDPE is a petroleum-based plastic that is combustible without the use of flame retardant chemicals. HDPE is now being substituted for older materials in storm sewer and drainage projects. The study found in increase in highway construction use where stormwater conduits serve as underground support.

The study, "Volatile Organic Carbon Diffusion from High Density Polyethylene Pipe Materials," was released today by the Princeton Institute of Science and Technology of Materials.

The study presents evidence that chemical contaminants are discharged from both "old" and "new" HDPE pipe material into water at temperatures ranging from four, to 40 to 65 degrees Celsius over a period of 60 days.

The finding of similar rates of diffusion of volatile organic carbons, VOCs, from "old" pipe as compared to "new" pipe suggests the breakdown may continue over the life of the plastic pipe, he said.

(ENS - 8/24/06)

MARYLAND SEEKS EMISSION CAPS ON COAL-BURNING POWER PLANTS

The Maryland Department of the Environment (MDE) is proposing emissions caps on Maryland's seven largest coal-fired power plants owned by Allegheny Energy Group, Constellation Energy Group, and Mirant Corporation.

These caps will reduce emissions of nitrogen oxide (NOx) by 75 percent, sulfur dioxide (SO2) emissions by 85 percent and mercury emissions by 90 percent below current levels.

On July 31, the MDE submitted the emergency regulations regarding power plant emissions to the Maryland General Assembly's Joint Committee of Administrative, Executive, and Legislative Review.

The regulations are the first step in implementing the Healthy Air Act, which was signed into law by Governor Robert L. Ehrlich, Jr., on April 6, 2006.

Once enacted, the final version of the regulations will constitute the most sweeping air pollution emission reduction measure proposed in Maryland history.

The emergency regulations are intended to get the requirements of the Healthy Air Act in place quickly, but they will have to be replaced by permanent regulations within six months.

For more information or to obtain a copy of the proposed emergency regulations, go to:

www.mde.state.md.us/Air/Md_CPR.asp or call

MDE's Air and Radiation Management Administration at 410-537-3245. (ENS - 8/7/06)

U.S. WIND POWER GENERATION HITS NEW HIGH

U.S. wind energy installations now exceed 10,000 megawatts in generating capacity, and produce enough electricity on a typical day to power the equivalent of over 2.5 million homes, according to the American Wind Energy Association, AWEA. A megawatt of wind power generates enough to serve 250 to 300 average homes.

"Wind energy is providing new electricity supplies that work for our country's economy, environment, and energy security," said AWEA Executive Director Randall Swisher. "With its current performance, wind energy is demonstrating that it could rapidly become an important part of the nation's power portfolio."

The record growth in wind power is driven by demand for the popular energy source and concerns over fuel price volatility and supply. It was also made possible by a timely renewal of the production tax credit, a federal incentive extended in the Energy Policy Act of 2005.

Previously, the credit had been allowed to expire three times in seven years, and this uncertainty discouraged investment in wind turbine manufacturing in the country.

AWEA is calling for a long-term extension of the tax credit before its scheduled expiration at the end of 2007 to avoid further "on-again-off-again" cycles and encourage long term investment.

Today, the industry is installing more wind power in a single year - 3,000 megawatts expected in 2006 - than the amount operating in the entire country in the year 2000, when just 2,500 megawatts were generated.

Wind was the second-largest source of new power generation in the country in 2005 after natural gas, and is likely be so again in 2006, according to the Energy Information Administration.

Wind turbine manufacturing companies have recently opened facilities in Iowa (Clipper Windpower), Minnesota (Suzlon), and Pennsylvania (Gamesa), and wind turbine orders are creating jobs all the way down the supply chain, sometimes in areas that do not have a large wind resource, such as Louisiana.

(ENS - 9/1/06)

PERDUE FARMS AGREES TO BAY PROTECTION PROGRAM

The U.S. Environmental Protection Agency (EPA) and poultry giant Perdue Farms Inc. signed an agreement that will set up a program to help minimize the environmental impact that the company's chicken farms have on the Chesapeake Bay and coastal bays around the Delmarva Peninsula. The program initially focuses on the largest farms that supply Perdue with chickens.

"Our shared goal in signing this Clean Bays agreement is the restoration and protection of the waters of Delmarva, which provide a valuable ecosystem to plant and animal life and provide a valuable source of recreation to visitors and residents throughout the mid-Atlantic region," said Donald S. Welsh, regional administrator for EPA's mid-Atlantic region.

Runoff from improperly managed poultry farms can adversely affect the water quality of the bay how well the farms are complying with nutrient management regulations related to their poultry operations and identify areas for improvement. Based on the results of this initial pilot effort, Perdue will use the information gathered from the farms to launch a company-wide environmental

management program in 2008 for all of its contract poultry farms throughout the country.

waters and have a negative effect on plant and fish

life. Under terms of the agreement, set to begin in

2007, trained flock supervisors from Perdue will

visit the larger poultry farms throughout the

Delmarva peninsula to evaluate how they are con-

The supervisors will use a checklist to examine

trolling runoff and addressing litter disposal.

(ENS - 9/25/06)

MERCURY POLLUTION PERVASIVE IN U.S. WILDLIFE

Mercury pollution is making its way into nearly every habitat in the United States and is exposing countless species of wildlife to potentially harmful levels of mercury, according to a new study released by the National Wildlife Federation.

"From songbirds to alligators, turtles to bats, eagles to otters, mercury is accumulating in nearly every corner of the food chain," said Catherine Bowes, Northeast program manager for the National Wildlife Federation and principal author of the report. "This report paints a compelling picture of mercury contamination in the United States, and many more species are at risk than we previously thought. Fish, long thought to be the key species affected by mercury, are just the tip of the iceberg."

The report is a compilation of over 65 published studies finding elevated levels of mercury in a wide range of wildlife species. It highlights mercury levels in fish, mammals, birds, reptiles and amphibians living in freshwater, marine, and forest habitats from across the country.

"Scientific understanding of the extent of mercury contamination in wildlife has expanded significantly in recent years," said Dr. David Evers, a wildlife toxicologist with the Biodiversity Research Institute. "We are finding mercury accumulation in far more species, and that much higher levels, than we previously thought was occurring. This poses a very real threat to the health of many wildlife populations, some of which are highly endangered.

The report pulls together the major findings from more than 20 of the 65 published studies that attribute adverse health impacts on fish, birds, and mammals with elevated mercury levels in those species. Fish with high mercury levels have difficulty schooling and spawning, birds lay fewer eggs and have trouble caring for their chicks, and mammals have impaired motor skills that affect their ability to hunt and find food.

There is some potentially good news – the report shows that cutting emissions can make a quicker impact than previously thought.

In places where mercury emissions have been cut, such as Florida, Wisconsin, New Hampshire, and Massachusetts, mercury levels in fish and wildlife have been reduced in a matter of years, not decades, as scientists have previously believed. "Now that we have hard evidence that mercury is affecting more species than originally thought, anything short of phasing out this toxic metal is inadequate," Bowes said. "The discovery of mercury in so many different species is a wake-up call. We

need to ensure that all is being done to help wildlife cope with the stresses of a changing climate. Eliminating known threats like mercury is a critical place to start."

(ENS - 10/22/06)

EUROPEAN SCIENTISTS STUNNED BY ARCTIC ICE MELT

Satellite images from August revealed dramatic openings over large areas of the Arctic's perennial sea ice pack, the European Space Agency (ESA) said. The ice had retreated to such an extent that a ship likely could have sailed from Northern Siberia or the Norwegian Island of Spitzbergen to the North Pole without difficulty, the scientists said.

"This situation is unlike anything observed in previous record low ice seasons," said Mark Drinkwater of ESA's Oceans/Ice Unit. "If this anomaly trend continues, the North-East Passage or 'Northern Sea Route' between Europe and Asia will be open over longer intervals of time, and it is conceivable we might see attempts at sailing around the world directly across the summer Arctic Ocean within the next 10-20 years."

The satellite images, acquired from 23 to 25 August, by instruments aboard the EOS Aqua satellite, showed holes in the Arctic's perennial sea ice pack larger than the area of the British Isles.

Perennial sea ice normally survives the summer melt season and remains year round.

(ENS - 9/20/06)

CALIFORNIA SUES AUTOMAKERS OVER GLOBAL WARMING

California Attorney General Bill Lockyer filed a lawsuit against six U.S. and Japanese auto manufacturers, alleging their vehicles' emissions have contributed significantly to global warming and harmed the economy and environment of California.

The suit is the first of its kind in the United States seeking to hold automakers for the damages caused by greenhouse gas emission produced by their vehicles.

"Global warming is causing significant harm to California's environment, economy, agriculture and public health," Lockyer said. "The impacts are already costing millions of dollars and the price tag is increasing."

The Alliance of Automobile Manufacturers said the automakers are still reviewing the filing.

Lockyer said that vehicle emissions are the single most rapidly growing source of the carbon emissions contributing to global warming.

"The federal government and automakers have refused to act," he said. "It is time to hold these companies responsible for their contribution to this crisis."

The suit was filed in U.S. District Court for the Northern District of California. It names six auto giants as defendants – Chrysler, General Motors, Ford, Toyota, Honda and Nissan.

The complaint alleges that under federal and state common law the automakers have created a public nuisance by producing "millions of vehicles that collectively emit massive quantities of carbon dioxide."

It asks the court to hold the defendants liable for damages, including future harm, caused by their ongoing, substantial contribution to the public nuisance of global warming. The complaint states that the automakers produce vehicles that emit a combined 289 million metric tons of carbon dioxide in the United States each year.

(ENS – 9/20/06)

WARMING WILL DRAMATICALLY ALTER U.S. NORTHEAST

Global warming will cause major changes to the climate of the U.S. Northeast if greenhouse gas emissions are not reduced, scientists said in October. Warmer annual temperatures, less snow, more frequent droughts and more extreme rainstorms are expected if current warming trends continue, the scientists said in a new study, and time is running out for action to avoid such changes to the climate.

The Northeast's climate is already changing, the report said, as spring is arriving sooner, summers are hotter and winters are warmer and less snowy.

Annual temperatures across the nine states of the Northeast have risen more than 1.5 degrees Fahrenheit since 1970. Winter temperatures, however, have risen much faster – about 3.8 degrees since 1970.

All these changes could accelerate without action to cut greenhouse gas emissions, the report's authors warn.

"The very notion of the Northeast was we know it is at stake," said Dr. Cameron Wake, a research professor at the University of New Hampshire's Climate Change Research Center and co-author of the report. "The near-term emissions choices we make in the Northeast and throughout the world will help determine the climate and quality of life our children and grandchildren experience."

The report was released by the Northeast Climate Impacts Assessment (NECIA), a collaboration between the Union of Concerned Scientists (UCS) and a term of independent scientists from universities across the Northeast and the nation.

(ENS – 10/4/06)

HONEYWELL AGREES TO \$451 MILLION LAKE CLEANUP

Aerospace giant Honeywell, Inc. has agreed to spend \$451 million to clean up contaminated sediments in Onondaga Lake, one of the most polluted lakes in the United States. The lake, a sacred site to Native America tribes, is heavily contaminated with an array of toxic metals and chemicals and is one of only three lakes listed as a federal Superfund site.

The legal settlement agreement was announced by New York state officials and will provide for one of the largest environmental remediation projects in the state's history.

"The contamination of Onondaga Lake has severely limited opportunities for people to enjoy these waters," said New York Republican Governor George Pataki. "Although there is still work to be done, this agreement is an important step that secures a legal commitment to implement this critical cleanup project."

The lake, in northwest Syracuse, was a critical waterway for the Onondaga Nation, one of six Native American tribes that formed the Iroquois Confederacy.

The lake is one of only three lakes listed as a federal Superfund site. For more than a century it has been a dumping ground for industrial waste and sewage. Much of the pollution was caused by Allied-Signal, a former chemical company that manufactured caustic soda, soda ash, chlorinated benzenes, and other products at a site near the lake from 1917 through 1986. The company's operations released mercury, solvents, calcium and other pollutants into nearby streams and soil as well as Onondaga Lake.

By 1940 the lake was declared unsafe for swimming and in 1970 fishing was banned on the lake. Honeywell purchased Allied-Signal in 1999 and became the party responsible for the contamination.

The cleanup outlined in the settlement will take at least nine years to complete. Onondaga County is also currently spending \$500 million on a 15-year project to curb discharges of untreated sewage into the lake. The state has spent some \$125 million since 1995 to improve water quality at the lake – the federal government has spent more than \$100 million on the effort. The county-led project aims to achieve full compliance with state and federal water quality regulations by December 2012.

The Onondaga Nation has called the remediation plan insufficient. The plan was first proposed in late 2004. The tribe contends that New York officials failed to consult its leaders during the development of the plan.

The Onondagas filed a suit in 2005 claiming ownership of 3,100 square miles of land in upstate New York – a move leaders said was intended to gain a greater voice in clean up of polluted sites within the area.

(ENS-10/13/06)

REPORT WARNS ELECTRIC GRID NEEDS ATTENTION

The North American power grid needs major investments in new power generation and the transmission system if it is to remain reliable, according to a report released by the North American Electric Reliability Council (NERC).

The group was asked by the federal government in the wake of the massive blackout of August 2003 to oversee reliability of the electric grid.

The 2003 blackout left some 50 million people across eight U.S. states from Michigan to New York and the Canadian province of Ontario. Power was not restored to some parts of the United States for four days and the blackout cost the two nations as much as \$10 billion combined.

"Our economy and quality of life are more reliant on electricity every day, yet the operation and planning for a reliable and adequate electricity system is becoming increasingly difficult," said Rick Sergel, president and CEO of NERC. "These convergent trends require industry and government to work together to adopt a longer-term, more coordinated planning strategy. This report is intended to provide a factual basis for implementing such a strategy.

The assessment warns that demand for electricity is expected to increase by 19 percent in the United States over the next decade, but confirmed power capacity is set to increase by only 6 percent.

Capacity margins are projected to drop below minimum reliability targets in Texas, New England, the Mid-Atlantic and the Midwest during the next two to three years. Projected margins are adequate in Canada, expect for the western region of the country, where additional resources will be needed as soon as 2008, the report said.

The transmission system is also in need of additional investment, as expansion and strengthening

of the system continues to lag demand growth and expansion of generating resources in most areas, NERC warned. Total transmission miles are projected to increase by less than 7 percent in the United States and by only 3.5 percent in Canada through 2015.

The report recommends additional power generation facilities, new transmission and upgraded transmission facilities, greater energy efficiency measures and stronger contracts for the reliable supply and delivery of fuel to power generation facilities

(ENS – 10/16/06)

OZONE LOSS REACHES NEW RECORD

The loss of ozone over Antarctica reached a new record in 2006, scientists with the European Space Agency (ESA) announced. The loss was caused by unusually low temperatures above Antarctica, the researchers said, and helped push the hole in the ozone layer to a near record size.

"Such significant ozone loss requires very low temperatures in the stratosphere combined with sunlight," said ESA atmospheric engineer Claus Zehner. "This year's extreme loss of ozone can be explained by the temperatures above Antarctica reaching the lowest recorded in the area since 1979."

Measurements made by ESA's Envisat satellite revealed the ozone loss over Antarctica totaled 40 million metric tons, surpassing the record loss of 39 million tons recorded in 2000.

The loss is calculated by measuring the area and the depth of the ozone hole. The World Meteorological Organization reported that the size of this year's ozone hole will expand to reach 10.8 square miles (28 million square kilometers) – nearly as large as the record ozone hole extension during 2000.

European satellites are measuring changes in the ozone over Antarctica. ESA scientists report that the depth of the ozone hole this year rivals the record found in 1998.

Ozone is a protective layer about 15 miles above ground that shields the planet from harmful ultraviolets rays. It has been depleted primarily by human emissions of cholofluorocarbons (CFCs), once widely used as refrigerants, propellants and cleaning solvents.

(ENS - 10/2/06)

WORLD'S LARGEST RECYCLED STRUCTURE SET FOR SYRACUSE

A major commercial development in Syracuse, New York, will be the world's largest sustainable structure to be built with recycled industrial materials, incorporate energy efficient features, and reduce vehicle emissions, the U.S. Environmental Protection Agency announced this week. The developers of Destiny USA, a multi-use project, recently signed a Memorandum of Understanding with the EPA, promising to use a variety of environmentally sustainable practices.

"Destiny USA's pledge is the first of what we hope will be many similar commitments to use recycled industrial materials and promote other environmentally sustainable practices in major construction projects," said Susan Bodine, assistant administrator of EPA's the Office of Solid Waste and Emergency Response. "Increasing the use of recycled materials preserves our natural resources, protects the environment, conserves energy and saves money."

As part of its agreement with EPA, Destiny USA has agreed to employ green building techniques and become a partner in the Agency's Resource Conservation Challenge, WaterSense, and Energy Star programs. The company plans to use more than 3,000 tons, and to retrofit more than 100 construction trucks to reduce emissions by 85 percent.

In addition, Destiny USA will incorporate hybrid and diesel vehicles in to its fleet and promote EPA's SmartWay Transport Partnership to its carriers, shippers, and tenants to reduce truck emissions. Furthermore, the company plans to implement a commuter benefits program.

The MOU is part of a broader effort by EPA to encourage developers nationwide to expand their use of recycled industrial materials including coal combustion products, foundry sand and construction and demolition debris. Instead of disposing of these materials, they can be used to make products like concrete wallboard, steel beams and asphalt. Each year, U.S. businesses generate more than half a billion tons of industrial waste, which, in some cases, can be recycled and used as valuable resources.

(ENS-9/28/06)

METHANE EMISSIONS INCREASING AND COULD HASTEN GLOBAL WARMING

Levels of the potent greenhouse gas methane are on the rise and could accelerate global warming, scientists said. The new research shows that drought in recent years reduced methane emissions from natural sources and masked the impact of methane increases from human activities.

"The bad news is that the slowdown in global methane emissions in the past few decades was only temporary," said Jos Lelieveld, director of the Max Planck Institute for Chemistry in Germany.

The international research team published their findings on methane in the September 28th edition of the journal "Nature."

Methane is the second most important greenhouse gas after carbon dioxide and is estimated to have been responsible for a fifth of the enhanced greenhouse effect over the past 200 years.

Although methane is nowhere near as prevalent or long-lasting as carbon dioxide, it is a far more powerful greenhouse gas with 20 times the heattrapping effect.

Methane is released by humans through burning of grasslands, forest and wood fuel as well as by intense livestock activity, rice cultivation, and industrial sources. Natural decay of organic matter also produces methane.

The study warns that increased melting of permafrost will boost natural releases of methane. Using data from tracking stations taken between 1984 and 2003, as well as computer simulations, the international research team determined that methane levels fell from an annual growth rate of 12 parts per billion (ppb) in the 1980s to 4 ppb in the 1990s. They attributed this drop to cuts by industry as well as more efficient use of natural gas. But since the 1990s, levels have risen.

(ENS – 9/28/06)

The percentage of children living in counties that do not meet the air quality standard for fine particulate matter declined from 24 percent to 16 percent from 1999 to 2004, according to new data released today by the U.S. Environmental Protection Agency, EPA.

The data from an update to "America's Children and the Environment," EPA's compilation of information from federal databases that provide insights into children's environmental health.

The data provides Americans with information about children's exposure to environmental pollutants, and the EPA calls the report "an important instrument for the agency to gauge its progress in carrying out its mission."

Children under six are less likely to be regularly exposed to secondhand smoke at home, decreasing from 27 percent of children in 1994 to 11 percent in 2003, and the concentration of lead in young children's blood has gone down by 89 percent over a period of 25 years.

The data present measures of trends in environmental factors related to the health and well-being of children in the United States. The measures were previously published in a 2003 EPA report, and this update adds from two to five years of additional data for each of the measures.

The data looks at trends in environmental contaminant levels in air, water, food, and soil; concentrations of contaminants measured in the bodies of children and women; and childhood illnesses and health conditions such as asthma that may be influenced by exposure to environmental contaminants.

Children may be more vulnerable to environmental exposures than adults because their bodily systems are still developing; they eat more, drink more, and breathe more in proportion to their body size; and their behavior can expose them more to chemicals and organisms.

The study covers outdoor pollution. It finds that as of September 30, 2004, about 0.8 percent of children lived within one mile of a Superfund site, listed on the National Priorities List, that had not yet been cleaned up or controlled, down from about 1.2 percent in 1990.

Indoor pollution is also reported. The percentage of homes with children ages six and under in which someone smokes on a regular basis decreased from 27 percent in 1994 to 11 percent in 2003.

To view more of the numbers, read "America's Children and the Environment" at: www.epa.gov/envirohealth/children/highlights/ind

ex.htm" \

(ENS - 10/24/06)

See RT's Power Point Preservation on The New AAI Due Diligence Rules

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FEDERAL REGULATORY UPDATES

US SENATE VOTES TO REQUIRE PEER REVIEW OF ARMY CORPS PROJECTS

The U.S. Senate in mid July agreed to require independent peer review of costly and controversial U.S. Army Corps of Engineers' flood control and navigation projects.

Proponents said the Army Corps is in dire need of reform and pointed to last year's levee failures in New Orleans as only the latest example of why the agency requires increased oversight.

"The events of New Orleans cry out for independent review and outside scrutiny," said Senator John McCain, an Arizona Republican, who added that the Army Corps has a "lousy track record when it comes to project reviews."

The measure, cosponsored by McCain and Senator Russ Feingold, a Wisconsin Democrat, requires independent review of the economic and environmental impact of projects costing more than \$40 million.

Such reviews can also be required if requested by the governor of an affected state, if the Secretary of the army determines that the project is controversial, or if a federal agency finds a project will have a significant adverse impact.

The Senate voted 54-46 to add the requirement to the Water Resources Development Act (WRDA). The bill authorizes some \$12 billion for more than 100 Army Corps' navigation and flood control projects, in addition to funding for environmental restoration projects in the Chesapeake Bay, Florida Everglades, the Great Lakes and the Gulf Coast.

The amendment also establishes an outside safety assurance review for critical flood damage reduction projects to better provide for the public safety.

The House approved its version of the bill last summer, but its language on reform is less stringent than that approved by the Senate. Congress last approved a WRDA bill in 2000, despite repeated efforts to pass new legislation.

(By J.R. Pegg, ENS – 7/19/06)

NEW RULE FOR MERCURY IN MOTOR VEHICLE SWITCHES PROPOSED

EPA is proposing a significant new use rule (SNUR) under section 5(a)(2) of the Toxic Substances Control Act (TSCA) for elemental mercury (CAS No. 7439-97-6) used in convenience light switches, anti-lock braking system (ABS) switches, and active ride control system switches in certain motor vehicles. This action would require persons who intend to manufacture (including import) or process mercury for these uses, including when mercury is imported or processed as part of an article, to notify EPA at least 90 days before commencing such activity. EPA believes that this action is necessary because manufacturing, processing, use, or disposal of mercury switches can produce significant changes in human end environmental exposures. The required notice would provide EPA with the opportunity to evaluate the use of mercury in these switches, and, if necessary, to prohibit or limit such activity before it occurs to prevent unreasonable risk of injury to human health or the environment.

To view the rule:

" http://www.epa.gov/fedrgstr/EPA-TOX/2006/July/Day-11/t10858.htm" http://www.epa.gov/fedrgstr/EPA-TOX/2006/July/Day-11/t10858.htm

(Env. Tip of the Week - 7/18/06)

SUMMARY OF HAZARDOUS WASTE MANIFEST CHANGES

EPA's new Hazardous Waste Manifest must be used for shipments of hazardous waste beginning September 5. The following is a list of some comparisons and significant changes:

General Changes

- A Uniform Hazardous Waste Manifest is required for most shipments of federally regulated RCRA waste. Change: Only one version can be used anywhere in the US.
- States are banned from creating own versions. Some new fields are added including: generator site address, import/export, discrepancy categories, rejected loads, and alternate facility. The new form is printed on white paper. Colors previously used on state forms are banned. States were allowed to print their own instructions on manifests including state waste codes, mailing addresses for manifests, and other state information. Change: States may not include instructions on the national manifest and must develop other ways to provide that information.
- Shipments rejected by a receiving facility or containers with residues must be properly managed. Change: New manifest has space for load rejection information (cause, destination, receipt date, alternate facility, and reference to other manifest if used.) Time periods are set for retention time by TSDF (60 days) and generators (same as accumulation time.)
- States may require submission of manifests. Change: States where the generator is located may also require submission of manifests by the treatment storage or disposal facility (TSDF) in a different receiving state.
- Some states collected handling codes on manifests. Change: EPA requires use of the Biennial Report Hazardous Waste Management Report Method Codes by all TSDFs on all manifests.

Manifests were printed by states and many pri-

vate printers. Change: The new manifest "http://www.epa.gov/epaoswer/hazwaste/gener/man ifest/index.htm"

http://www.epa.gov/epaoswer/hazwaste/gener/manifest/index.htm must be used on and after September 5. It may be printed only by registered sources approved by EPA

"http://www.epa.gov/epaoswer/hazwaste/gener/man ifest/registry/index.htm"

http://www.epa.gov/epaoswer/hazwaste/gener/manifest/registry/index.htm.

Generators

- Generators are responsible for accurately completing the manifest and signing the waste minimization certification. Change: The certification is moved to the regulations. "Offerors" who prepare waste for shipment per DOT may sign manifests for the generator (such as transporters, contractors, or TSDFs rejecting waste).
- Waste could be rejected back to the generator. Change: Generators receiving rejected waste or containers with residue are required to sign the manifest and note discrepancies. There is a time limit for holding the waste before shipping it offsite. EPA allows the accumulation time that applies to the generator (90/180/270 days).
- Many states incorporated a copy page for generators to submit to the state. Change: EPA dropped that page, so generators in states that require sub-

REGULATORY UPDATES

- Mercury in Car Switches, pg. 10
- Hazwaste Manifest Changes, pg. 10
- Dry Cleaners Air Rules pg. 11Stationary Diesel Engine
- Emissions, pg. 12
- DOT Hazmat Rule Changes, pg. 15, 16

mission of a manifest must submit a legible photocopy.

Transporters

Import/Export information was required on the manifest. Change: A section is added for this information and for the transporter to sign off on exports. *TSDFs*

• TSDF identified discrepancies on manifests. Change: The manifest form provides five types of check boxes for discrepancies in addition to a narrative field.

• Rejected loads could be sent to the generator or an alternate facility. Change: Procedures require use of a new manifest in many cases, limit holding time of rejected waste, and require TSDFs to link old and new manifests by manifest numbers.

• Some containers and bulk containers held a residue after removing waste. Change: TSDFs are obligated to determine if a container holds a residue that exceeds the definition of an empty container.

• TSDFs must manifest non-empty containers to the generator or an alternate facility and link the manifests by manifest numbers.

• TSDFs submit manifests to their state, if so required. Change: Federal regulations now require TSDFs to submit manifests to their state and the generator's state as well, if required by that state. (*Env. Tip of the Week – 8/11/06*)

EPA PUBLISHES GENERAL CONFORMITY REGULATIONS FOR PM 2.5 AT FEDERAL ACTIVITIES

The EPA took final action "http://www.epa.gov/fedrgstr/EPA-AIR/2006/July/Day-17/a11241.htm" http://www.epa.gov/fedrgstr/EPA-AIR/2006/July/Day-17/a11241.htm to amend its regulations relating to the Clean Air Act (CAA) requirement that federal actions conform to the appropriate state, tribal or federal implementation plan for attaining clean air ("general conformity") to add de minimis emissions levels for particulate matter with an aerodynamic diameter equal or less than 2.5 microns (PM2.5) National Ambient Air Quality Standards (NAAQS) and its precursors.

NAS REPORT PROMPTS NEW EPA, STATE EFFORTS TO SET TCE CLEANUP RULES

The National Academy of Sciences' (NAS) call for EPA to quickly set a new risk level for trichloroethylene (TCE), the ubiquitous chemical that contaminates groundwater and soil at thousands of waste sites, is paving the way for EPA and states to begin setting new cleanup standards, including for TCE vapors that contaminate indoor air.

The NAS panel July 27 issued its long-awaited report backing EPA's approach for assessing TCE risks and urged their risk assessment with currently available data so that risk management decisions can be made expeditiously," the panel report says.

TCE is a widespread contaminant at waste sites,

having been used as an industrial solvent and degreaser for years. It is particularly prevalent at military sites, due to its use in cleaning aircraft parts. The Defense Department (DOD) has as many as 1,400 sites contaminated with the compound, while private industry faces liability for thousands of other properties. Because of the contamination at military sites, DOD and other federal officials in 2002 strongly opposed a draft EPA risk assessment that they charged relied on overly conservative assumptions, which would have prompted costly cleanups.

But the NAS panel generally backed EPA's risk approach. "The committee found that the evidence on carcinogenic risk and other health hazards from exposure to [TCE] has strengthened since" EPA completed its draft risk assessment in 2001, the NAS report says.

In response, EPA officials vowed the agency would move quickly to finalize a new risk assessment, telling congressional staff in briefings last week that they hope to complete the effort within six months. "Armed with the results from the NAS review, EPA will aggressively move forward" on a new risk assessment of TCE, an EPA spokeswoman says.

The spokeswoman says once the risk assessment is complete, EPA will consider whether to revise the existing 5 micrograms per liter drinking water standard for the contaminant level (MCLs), which also acts as a cleanup standard for contaminated groundwater. "EPA will determine whether or not to address the drinking-water standard once the risk assessment is complete."

EPA officials are also suggesting the agency may consider developing a new standard for contaminated vapors that may stem from TCE soil or groundwater contamination. Walter Mugdan, an EPA Superfund official in Region 2, says that given new data about widespread exposure to TCE contamination via vapor intrusion, regulators should now consider potential vapor intrusion exposure in their regular reviews of Superfund and other cleanup sites.

"Reassessment of the potential vapor intrusion problems should certainly now be part of the fiveyear review process for sites with [volatile organic compounds (VOC)] groundwater remediation, even where pump-and-treat systems have been successfully operated and MCLs have been successfully operated and MCLs have been achieved or nearly so," Mugdan says in a paper published in August by the American Bar Association. The paper, Vapor Intrusion: The Next Big Thing, represents Mugdan's personal views, not official EPA views.

Mugdan says that such reviews could prompt new cleanup requirements at a slew of waste sites, noting that groundwater at more than 55 percent of Superfund sites are contaminated with TCE. "Presumably TCE contamination is similarly typical at [Resource Conservation and Recovery Act] corrective action sites and state-listed hazardous sites," he says.

Mugdan adds that liable parties could also face additional cleanup liability due to an upcoming revised EPA guidance detailing ways to screen for potential vapor intrusion. The revised guidance, which could be released this year, "is expected ... to use more conservative [natural] attenuation factors and place more reliance on professional judgment in determining whether to proceed to indoor sampling.' Meanwhile, state regulators also appear likely to set new cleanup levels. Arizona officials, for example, say they will soon publish new standards lowering the acceptable level of TCE in soil from 27 parts per billion to 17 for residential property, from 27 ppb to 3 for school property, and from 70 ppb to 65 for commercial property. The state had begun its efforts well before the NAS released its report.

In its report, NAS backed EPA's controversial risk for assessing TCE's toxicity and impact on human metabolism. "The harmonized model is a reasonable extension ... [of previous models] and is the best model available ... Overall, the committee found that the uncertainties, variability and errors of the harmonized model were characterized appropriately," according to the July 27 report.

"Animal studies show that TCE acts as a complete carcinogen (at the stages of both tumor initiation and promotion and progression) in a dosedependent manner," the NAS concludes and recommends that EPA continue to use protective assumptions in analyzing the cancer risks.

(Superfund Report - 7/31/06)

IRS CERTIFIES HYBRID CARS AND TRUCKS FOR TAX CREDIT

Buyers of hybrid cars and trucks can receive a sizeable tax credit. The U.S. Internal Revenue Service (IRS) has just announced new vehicle certifications for the Alternative Vehicle Tax Credit.

The vehicles eligible for the tax credit include hybrid pickups from General Motors and GM's 2007 Saturn Vue Green Line, a new hybrid SUV that hasn't hit dealerships yet.

But the IRS warns buyers to be careful if employers offer a cash incentive for buying a hybrid, since the IRS considers that taxable income.

The Energy Policy Act of 2005 replaced the clean-fuel burning deduction with a tax credit. A tax credit is subtracted directly from the total amount of federal tax owed, thus reducing or even eliminating the taxpayer's tax obligation.

The tax credit for hybrid vehicles applies to vehicles purchased or placed in service on or after January 1, 2006.

The credit is only available to the original purchaser of a new, qualifying vehicle. If a qualifying vehicle is leased to a consumer, the leasing company may claim the credit.

Hybrid vehicles have drive trains powered by both an internal combustion engine and a rechargeable battery. Many currently available hybrid vehicles may qualify for the tax credit.

These models have been certified for the credit in the following amounts:

Model Year 2007

Chevrolet Silverado 2WD Hybrid Pickup Truck — \$250

Chevrolet Silverado 4WD Hybrid Pickup Truck — \$650

Ford Escape Hybrid 2WD - \$2,600

Ford Escape Hybrid 4WD - \$1,950

GMC Sierra 2WD Hybrid Pickup Truck – \$250

GMC Sierra 4WD Hybrid Pickup Truck- \$650

Lexus GS 450h — \$1,550

Mercury Mariner 4WD Hybrid — \$1,950 Saturn Vue Green Line — \$650

Toyota Camry Hybrid — \$2,600

Other models are eligible in the 2006 Model Year. A list is posted on the IRS website: www.irs.gov (ENS - 7/21/06)

EPA STRENGTHENS CLEAN AIR RULES FOR DRY CLEANERS

EPA is tightening rules for all dry cleaners that use the chemical perchloroethylene (perc), including a phase-out of the chemical in dry cleaners located in residential buildings.

"This is an important step in our comprehensive strategy to expand and enhance public health protections in the dry cleaning industry," said Bill Wehrum, EPA's acting assistant administrator for Air and Radiation. "The phase-out in residential buildings and improved protections are good for public health and good for the environment."

While the potential for health effects from most dry cleaners across the country are generally low EPA found that a small number of dry cleaners located in residential buildings posed a risk that warrants action. For residential buildings, the final rule requires the phase-out of perc machines as they wear out. By 2020, dry cleaning machines in residential buildings are prohibited from using perc; they may continue to operate if they use alternative technologies. In the interim, owners of perc machines will use enhanced technology to detect and repair leaks as they occur. The final rule will also require dry cleaners to use more sophisticated methods to detect and repair perc emissions from large and commercial dry cleaners and small dry cleaners often found in shopping centers.

More information on the rule:

"http://www.epa.gov/air/drycleaningrule" http://www.epa.gov/air/drycleaningrule

(EPA - 7/14/06)

EPA STRENGTHENS RULE GOVERNING LEAD IN DRINKING WATER

The U.S. Environmental Protection Agency (EPA) plans to tighten its rules on lead in drinking water according to revisions proposed to the Lead and Copper Rule.

The proposal would revise monitoring requirements to ensure that water samples show how effective lead controls are.

It would clarify the timing of sample collection and tighten criteria for reducing the frequency of monitoring the lead levels in drinking water.

Water utilities would be required to receive state approval of treatment changes so that states can provide direction or require additional monitoring.

Water utilities would be required to notify occupants of the results of any testing that occurs within a home or facility. It also would ensure that consumers receive information about how to limit their exposure to lead in drinking water.

Water utilities also would be required to reevaluate lead service lines that may have previously been identified as low risk after any major treatment changes that could affect corrosion control.

The proposed rulemaking affects public water systems that are classified as community water systems - systems that provide water to year-round residents in places like homes or apartment buildings.

In addition, non-transient, non-community water systems are affected. These are systems that provide drinking water to people in locations such as

schools, office buildings, and restaurants, state agencies, and local and tribal governments.

The proposal is an outgrowth of EPA's March 2005 drinking water lead reduction plan. The agency developed the plan after analyzing the effectiveness of the Lead and Copper Rule and how states and local governments were implementing it. (ENS - 7/10/06)

NEW STATIONARY DIESEL ENGINES TO HAVE REDUCED EMISSIONS

On June 29, 2006, EPA announced requirements that will limit air emissions from new stationary diesel engines by up to 90 percent. The stationary compression ignition internal combustion engines are used at facilities such as power plants and chemical and manufacturing plants to generate electricity and to power pumps and compressors.

The requirements will take effect in three increasingly stringent stages beginning in 2007. At full implementation in 2015, EPA estimates that 81,500 new stationary diesel engines will be covered by the requirements and will reduce their air pollutant emissions by more than 68,000 tons each year. The standards also limit the amount of sulfur in the diesel fuel used to run these engines.

The New source performance Standards will limit emissions of nitrogen oxides, particulate matter, sulfur dioxide, carbon monoxide, and hydrocarbons from new or reconstructed stationary diesel engines to the same stringent levels required by EPA's nonroad diesel engine regulations.

For more information on this action, visit: "http://www.epa.gov/ttn/oarpg/t3/fact_sheets/ci_ns ps_fnl_fs.html"

http://www.epa.gov/ttn/oarpg/t3/fact_sheets/ci_nsp s_fnl_fs.html

(EPA - 6/29/06)

EPA UPDATES HAZARDOUS WASTE REGULATIONS

EPA recently reviewed its hazardous waste RCRA regulations to find outdated and inaccurate information. The result is a significant number of corrections that were recently published in the Federal Register

"http://a257.g.akamaitech.net/7/257/2422/01jan200 61800/edocket.access.gpo.gov/2006/06-5601.htm" http://a257.g.akamaitech.net/7/257/2422/01jan2006 1800/edocket.access.gpo.gov/2006/06-5601.htm> as a final rulemaking. No new requirements were established in this rule; however, EPA simplified compliance by removing the outdated data. For example, in the definition of ignitable hazardous waste (D001), the former regulations referred to the Department of Transportation definitions from the 1980 Code of Federal Regulations for ignitable compressed gases and oxidizers. Because DOT had revised its regulations, the original EPA references did not link to the current CFRs. Therefore, in this rulemaking, EPA has adopted the full text of the definitions of ignitable compressed gases and oxidizers from DOT's 1980 regulations.

AGENCIES BLAST ACCOUNTING BOARD'S PLAN TO MEASURE ASBESTOS LIABILITY

The General Services Administration (GSA) and other large federal property owners are criticizing a proposal from the Federal Accounting Standards Advisory Board (FASAB) for measuring asbestos cleanup costs and other related liabilities, saying it could lead to an inaccurate assessment of risks and needed cleanup expenditures.

Some federal officials say one of the primary faults in the proposed guidance drafted by the Federal Accounting Standards Advisory Board (FASAB) is the notion that all asbestos must be counted as an environmental liability and one day remediated.

But a FASAB source says the finance officials are "thinking too near-term" and that the proposal is seeking to look at the "life cycle" of property that contains asbestos and the eventual remediation costs. The source says the proposal is based on a standard followed by private industry for assessing remediation obligations.

The proposal released by the FASAB, which once finalized would take precedence over any other guidance developed by a government agency, calls on federal entities to estimate the cleanup costs of asbestos that is both friable – dry and easily crumbled – and nonfriable, which does not crumble as easily. Nonfriable asbestos poses fewer risks than friable asbestos because it is often contained in materials such as cement, asphalt or vinyl and results in limited exposure.

A standard developed by a private sector accounting board for private industry does not differentiate between friable and nonfriable, but once a building or other property containing asbestos is demolished or discarded, asbestos typically becomes friable and in need of remediation, the FASAB source says. Therefore the board is proposing that federal agencies begin to estimate the potential cleanup costs for the asbestos, even if the substance poses little risk today, the source says. The source adds that revisions to the proposal will include a more extensive explanation of the life cycle concept.

The proposal calls on the entities to "recognize" a liability and the related expense for the costs that are "both probable and reasonably estimable" for asbestos-contaminated property, and to disclose information related to the cleanup costs that are probable but difficult to estimate.

The proposal applies to the buildings, facilities, ships, or "other tangible property, plant and equipment that contains any form of asbestos." A final standard could greatly affect a federal agency's overall budget, particularly the funding set aside for environmental cleanup, sources say.

(Superfund Report – 7/17/06)

US SENATE VOTES TO REQUIRE PEER REVIEW OF ARMY CORPS PROJECTS

The U.S. Senate in mid July agreed to require independent peer review of costly and controversial U.S. Army Corps of Engineers' flood control and navigation projects.

Proponents said the Army Corps is in dire need of reform and pointed to last year's levee failures in New Orleans as only the latest example of why the agency requires increased oversight.

"The events of New Orleans cry out for independent review and outside scrutiny," said Senator John McCain, an Arizona Republican, who added that the Army Corps has a "lousy track record when it comes to project reviews."

The measure, cosponsored by McCain and Senator Russ Feingold, a Wisconsin Democrat, requires independent review of the economic and environmental impact of projects costing more than \$40 million.

Such reviews can also be required if requested by the governor of an affected state, if the Secretary of the army determines that the project is controversial, or if a federal agency finds a project will have a significant adverse impact.

The Senate voted 54-46 to add the requirement to the Water Resources Development Act (WRDA). The bill authorizes some \$12 billion for more than 100 Army Corps' navigation and flood control projects, in addition to funding for environmental restoration projects in the Chesapeake Bay, Florida Everglades, the Great Lakes and the Gulf Coast.

The amendment also establishes an outside safety assurance review for critical flood damage reduction projects to better provide for the public safety.

The House approved its version of the bill last summer, but its language on reform is less stringent than that approved by the Senate. Congress last approved a WRDA bill in 2000, despite repeated efforts to pass new legislation.

(By J.R. Pegg, ENS – 7/19/06)

NEW DATA MAY HELP OIL INDUSTRY REDUCE VAPOR CONCERNS OVER SPILLS

The petroleum industry is conducting research on the risks of chemical vapors resulting from petroleum releases in an effort to show the sites will not cause vapor intrusion, a major concern among real estate professionals, environmental regulators and others who say they need guidelines to address the issue.

The American Petroleum Institute (AIR) is currently funding studies in Colorado on the effects of petroleum contamination. The industry has long argued that petroleum products quickly biodegrade, reducing the concentration of vapors that reach indoor air.

API officials late last year also unveiled a longawaited guidance for assessing exposure to contaminated vapors from petroleum contamination.

At the same time, a state regulatory from Utah recently presented data showing that clean, oxygenated soil can spur bioattenuation of petroleum products. Robin Davis, a scientist with the Utah Department of Environmental Canadian province to reach the conclusion that clean soil surrounding a petroleum release minimizes dangers of vapor intrusion.

But sources say clean, oxygenated soil is not common at petroleum-contaminated sites, and that the data set presented by the state regulator does not reflect typical environments in areas where vapor intrusion has become a concern, particularly the Northeast and urban Midwest. "Those conditions [in the state regulator's research] don't reflect the reality of a lot of contaminated sites," says one real estate attorney.

Moreover, many critics note that petroleum typically contains benzene, a known human carcinogen, and methyl tertiary butyl ether (MTBE), which EPA may label as a "likely" carcinogen.

Vapor intrusion results when common contaminants, 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.

While EPA has developed draft guidance on ways to address vapor intrusion, the agency document primarily addresses chlorinated solvents and other chemicals, not oil and petroleum products. Some environmental professionals adapt the agency guidance by applying an attenuation factor to account for petroleum products' speedier natural attenuation and biodegradation.

While several states have developed vapor intrusion guides for vapor intrusion from particular contaminants, few have developed measures on petroleum contamination. A Minnesota draft released last year and a 2000 Maine guide specifically address vapor intrusion resulting from petroleum contamination, but sources say they are not easily applied elsewhere.

Mortgage lenders and other real estate professionals are concerned about vapor intrusion at former gas station sites. Real estate professionals believe petroleum-contaminate soil and expansive concrete in urban areas – which can limit oxygen and moisture in the ground – have contributed to potential risks. Real estate developers and others say there is a need for guidance – either in the form of regulatory guidance or independent industry standards – to address the large number of petroleumcontaminated sites.

Limiting contamination from vapor intrusion is much easier before new structures are built, sources say, because buffers or ventilation systems can be installed. But minimizing the risks posed by vapor intrusion in remodeled or renovated buildings can be more difficult because significant structural changes may have to be made, sources note.

(Superfund Report - 7/3/06)

NEW DOCUMENTS

Downward Solute Plume Migration: Assessment, Significance and Implications for Characterization and Monitoring of "Diving Plumes." (API Bulletin 24). (April 2006, 38 pages). View or download at HYPERLINK "http://api-ec.api.org/filelibrary/ACF2A9.pdf" http://api-ec.api.org/filelibrary/ACF2A9.pdf.

EPA PROPOSES CHANGES TO CLEAN AIR PROGRAM

The Bush administration has proposed industryfriendly revisions to air regulations that force power plants, oil refineries and other industrial facilities to install modern air pollution controls when they expand operations. The administration said the proposal would accelerate investments in cleaner, energy-saving technologies, but environmentalists contend it would lead to more pollution.

The proposal targets three specific areas of the Clean Air Act's New Source Review program, which was enacted in 1977 to require owners of older industrial facilities to modernize pollution controls when they make modifications that result in increased emissions.

One revision addresses a type of medication known as a "debottlenecking" project. The U.S. Environmental Protection Agency (EPA) said the term applies when a plant operator modifies a portion of a facility in a way that increases production elsewhere in the facility. The proposal would allow the unchanged portions of the facility to ignore the requirements of the New Source Review program.

The second change involves a clarification to

how the program applies when multiple projects are implemented at a facility - known as "aggregation." The proposal would allow related projects to be treated as one if they are dependent on each other.

According to the EPA, both aggregation and debottlenecking have been implemented through agency guidance on a case-by-case basis in the past.

The third change would revise the formula used by industry to determine if its actions require the installation of modern pollution controls under the New Source Review program. This calculation is known as "project netting" - the primary change would allow industry to avoid a complex analysis if it finds the net effect of a project does not cause a significant increase in emissions.

"Existing permit limits on emissions would not be affected, and the proposed changes would encourage investments in refining capacity, improve industries' efficiency and reduce demand for natural gas," EPA said. "The improvements would also lower energy costs to households and consumers."

The agency plans to finalize the regulations by May 2007.

Bob Slaughter, president of the National Petrochemicals and Refiners Association said the proposed rules would "provide additional certainty to oil refiners, petrochemical manufacturers and many other key industries as they modify facilities to meet increased demand for their products in a growing American economy."

Furthermore, the proposals will help the industry respond to calls for increased refining capacity, Slaughter said.

Environmentalists are unconvinced and say the revisions are the continuation of a broad effort by the Bush administration to weaken the New Source Review program.

According to EPA, the proposed changes are the final set of revisions the agency recommended in 2002 to clarify the New Source Review program, which has long been a thorn in industry's side.

(ENS - 9/8/06)

LITTLE SWITCHES ADD UP TO BIG CUTS IN MERCURY POLLUTION

EPA announced a national program that will help cut mercury air emissions by up to 75 tons over the next 15 years. The National Vehicle Mercury Switch Recovery Program is designed to remove mercury-containing light switches from scrap vehicles before the vehicles are flattened, shredded, and melted to make new steel.

= "President Bush understands that removing these little switches will lead to big mercury reductions," said Administrator Stephen L. Johnson. "This collaboration strengthens the United States" position as the worldwide leader in reducing mercury pollution."

Although the U.S. automobile industry halted use of mercury-containing light switches in 2002, an estimated 67.5 million switches are currently in use in older vehicles and available for recovery. Each year, the steel industry recycles more than 14 million tons of steel from scrap vehicles, the equivalent to nearly 13.5 million new automobiles, making vehicles the most recycled consumer product and the steel industry one of the largest consumers of recycled materials in the world.

Together with existing state mercury switch recovery efforts, this program will significantly reduce mercury air emissions from the furnaces used in steel making – the fourth leading source in the United States after coal-fired utility boilers, industrial boilers and gold mining. Under the program, automobile dismantlers will remove the mercury-containing light switches from scrap vehicles prior to the vehicles being flattened and then shredded at scrap recycling facilities. The program will also provide a financial incentive for those who remove mercury switches.

Domestic releases and uses of mercury have decreased significantly over the last 25 years. U.S. mercury air emissions have been reduced by 45 percent since 1990, and mercury use in products and processes decreased 83 percent between 1980 and 1997. Recent efforts to further cut mercury emissions have targeted industrial boilers, chlorine production facilities and a Bush Administration regulation that, for the first time, will achieve a 70 percent reduction in mercury emissions from coal-fired power plants, when fully implemented. EPA now has standards in place limiting mercury air releases from most major known industrial sources in the United States.

The National Vehicle Mercury Switch Recovery Program is the result of a two-year collaborative effort involving EPA, the end of Life Vehicle Solutions Corporation, the American Iron and Steel Institute, the Steel Manufacturers Association, the Institute of Scrap Recycling Industries, the Automotive Recyclers association, Environmental Defense, the Ecology Center (Ann Arbor), and representatives of the Environmental Council of the States. EPA and these stakeholders announced the program at an event in Chicago to mark the signing of the agreement which established the program. The event was held at Bionic Auto Parts and sales Inc., an automobile recycling facility in Chicago, IL.

More information about the National Vehicle Mercury Switch Recovery Program and additional mercury reduction efforts: HYPERLINK "http://www.epa.gov/mercury/switch.htm" http://www.epa.gov/mercury/switch.htm.

(ENS - 8/11/06)

NEW FEDERAL DOCUMENT

Abstracts of Remediation Case Studies, Volume 10 (EPA 542- R-06-002). This new report, published by the Federal Remediation Technologies Roundtable (FRTR), is a collection of abstracts summarizing nine cost and performance case studies on the use of remediation technologies at contaminated sites. The case studies include several different technologies for treating soil or groundwater contamination or both, with 3 reports on soil cleanup, 3 reports on groundwater and 3 reports on both soil and groundwater. View or download the volume of abstracts at HYPERLINK "http://cluin.org/techpubs.htm" http://clu-in.org/techpubs.htm. For hard copies call (800) 490-9198 or fax to (513) 489-8695.

(Tech Direct - 9/1/06)

EPA RELEASES GUIDANCE TO REDUCE MECHANICS' EXPOSURE TO ASBESTOS

The Environmental Protection Agency is updating its guidance to protect the health of auto mechanics with the release of a draft brochure entitled, "Current Best Practices for Preventing Asbestos Exposure Among Break and Clutch Repair Workers." The brochure contains information for

both automotive professionals and home mechanics. EPA is providing the public 60 days to comment on the brochure.

The brochure includes work practices that may be used to avoid asbestos exposure. It also summarizes existing Occupational Safety and Health Administration (OSHA) regulatory requirements for professional automotive mechanics. When finalized, the brochure will supersede the existing "Guidance for Preventing Asbestos Disease Among Auto Mechanics," known as the "Gold Book."

More information:

Asbestos: "http://www.epa.gov/asbestos" http://www.epa.gov/asbestos [HYPERLINK " h t t p : / / w w w . e p a . g o v / a s b e s t o s " http://www.epa.gov/asbestos] The draft brochure: "http://www.epa.gov/asbestos/pubs/goldbook.html" http://www.epa.gov/asbestos/pubs/goldbook.html "http://www.epa.gov/asbestos/pubs/goldbook.html] To file comments:

"http://www.regulations.gov" http://www.regulations.gov [HYPERLINK "http://www.regulations.gov" http://www.regulations.gov] docket number EPA-HQ-OPPT-2006-0398

EPA REVISES RQs FOR CARBAMATE HAZARDOUS WASTES

EPA promulgated adjustments to the reportable quantities under the Comprehensive Environmental Response, Compensation and Liability Act for 28 individual carbamates and five carbamate-related hazardous waste streams and for the inorganic chemical manufacturing process waste K178 from their statutory one-pound reportable quantities. All of the substances are listed as hazardous wastes under the Resource Conservation and Recovery Act, and as hazardous substances under the Comprehensive Environmental Response. Compensation and Liability Act. The new RQs, which range from 1 pound to 5000 pounds, became effective on September 15.

EPA GUIDE ON LAND-USE CONTROL COSTS MAY SPARK INDUSTRY BACKLASH

State officials are warning that an upcoming EPA guide on estimating the costs of land-use controls at contaminated sites – which an agency official warns is likely to be "controversial" – may spark a backlash from responsible parties because of concerns that EPA's methodology could increase cleanup costs.

The guidance on so-called institutional control (IC) costs is intended to help state and agency officials negotiate long-term IC funding with responsible parties, and comes after the agency announced it would increase enforcement against parties for implementing ineffective IC, in an effort to help conserve limited Superfund dollars.

Michael Bellot, an EPA Superfund official who specializes in IC policy, said Aug. 14 here at the Association of State & Territorial Solid Waste Management Officials (ASTSWMO) State Superfund Managers Symposium that the upcoming draft document was going to be "controversial" because the "life-cycle cost guidance" will recommend how to create budgeting assumptions and develop financial assurances. It also discussed the "social" costs that regulators can refer to when negotiating funding for ICs. The draft will likely become public next year, he said, adding that he "anticipate(s) bumpy peer review."

ICs are land-use restrictions at waste sites where contamination is left onsite after a cleanup, and can include engineering remedies – such as physical barriers and technologies – as well as non-engineering remedies, such as deed restrictions or other controls that prevent uses that may allow exposure to unsafe levels of contamination. For example, if a site is cleaned up to industrial-use standards, ICs should prevent a developer from building residential homes on the site.

But state sources say it may be difficult to force responsible parties to accept the cost of implementing the ICs over the long-term. Moreover, efforts to encourage the parties to consider the "social" costs that could improve the Plans for residential use or development of a school usually require a more stringent cleanup than plans to remediate a contaminated property for industrial or commercial uses. "A lot of guys don't want to clean up more than they have to," one state source says.

Many state and EPA sources fear that if ICs are ineffective, they would be forced to pay for additional cleanups at brownfields and other sites that have already been remediated. In March, EPA released a memo that said possible enforcement measures would need to be taken against responsible parties to ensure ICs are working to protect human health and the environment, in an effort to protect already scarce Superfund program dollars.

A 2005 Government Accountability Office report found that understanding the life-cycle costs of funding ICs is crucial to ensuring that sites are adequately cleaned up and able to be put into reuse. "Relying on institutional controls as a major component of a selected remedy without carefully considering all of the applicable factors – including whether they can be implemented in a reliable and enforceable manner – could jeopardize the effectiveness of the entire site remedy," the report says. (Superfund Report – 8/28/06)

EPA TO REVISE HALOGENATED SOLVENT DEGREASER MACT STANDARD TO CONTROL RESIDUAL RISK

EPA is proposing options to reduce air toxics emissions by up to 70% from halogenated solvent cleaning operations:

"http://www.epa.gov/ttn/oarpg/t3/fact_sheets/degre asproposalfs2006.html"

http://www.epa.gov/ttn/oarpg/t3/fact_sheets/degrea sproposalfs2006.html. Halogenated solvents are used to remove soils such as grease, oils, waxes, carbon deposits and tars from metal, plastic, fiberglass and other surfaces.

The proposal includes two options. The proposals would impose an annual cap on emissions of the solvents methylene chloride, perchloroethylene and trichloroethylene. Affected facilities would be allowed to reduce their emissions using any traditional methods available. There are nearly 1,900 degreasing operations in the United States. Most degreasing operations already emit less than either proposed cap. The proposal would focus on facilities posing the highest risks by requiring them to reduce emissions and meet the cap.

The proposal addresses the residual risk and the eight-year technology review provisions in the Clean Air Act. These provisions direct EPA to review existing control technology standards. EPA is to tighten those standards if needed to protect health or because of improvements in emissions reduction methods.

EPA will accept public comment on its proposal for 45 days following publication of the proposed action in the Federal Register.

(Env. Tip of the Week - 8/14/06)

EPA EVALUATES MERCURY LAMP DRUM TOP CRUSHERS

EPA has released a Mercury Lamp Drum-Top Crusher Study that provides the most current information on the performance of drum-top mercury lamp crushing lamp devices. The agency believes that with this information, states, users of mercurycontaining lamps, and lamp recyclers will be able to make more informed decisions when managing fluorescent lamps.

Drum-top mercury lamp crushers are used to improve waste lamp storage and transport, and reduce costs associated with lamp recycling.

Hazardous waste lamps were added to the federal list of universal wastes on January 6, 2000 (64 FR 36465). The preamble to the rule identifies lamp crushing as RCRA treatment and specifically prohibits the use of DTCs for management of fluorescent lamps as universal waste unless an equivalency determination is made. The purpose of the study is to make information available to states and regions that could eventually be used to provide "a demonstration of equivalency to the federal prohibition [on treatment of universal waste without a permit]."

Three of the four devices included the Study usually maintained mercury levels within a containment structure, constructed for the Study, below the OSHA Permissible Exposure Limit (PEL) of 0.1 mg/m3. One device generally maintained mercury levels below the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) of 0.025 mg/m3 during normal lamp crushing operations. The fourth device failed to maintain mercury levels below the OSHA PEL, even when only low-mercury lamps were crushed (nine of the 12 air samples collected for this device were above the PEL and four of the 12 air samples were more than three times the PEL). This device was eliminated from the Study after two rounds of testing because of concerns about operator health and safety.

EPA's study demonstrated that during operation of the three DTCs that completed the study, the operator was, at times, exposed to levels of mercury above the TLV and PEL values. Higher exposures typically occurred when a DTC had to be taken off of a drum because the drum was full. This procedure allowed the drum to be open to the room for several minutes.

(Env. Tip of the Week - 8/28/06)

DECISION NIXING CLEANUP COST OPTION IN AVIALL SETS STAGE FOR NEW FIGHTS

A federal district court's rejection of an alternative way of recovering cleanup costs in a remanded version of the Supreme Court's landmark Aviall ruling may set the stage for additional high court review on the contentious issue of how to sue other polluters for remediation costs at voluntary Superfund cleanups.

In August, the U.S. District Court for the Northern District of Texas ruled that Aviall Services could not sue Cooper Industries to recover cleanup

costs under Section 107 of the Superfund law for a cleanup conducted without a government order demanding remediation.

The case was a remanded version of Cooper Industries v. Aviall Services, in which the Supreme Court said in 2004 that a potentially responsible party (PRPs) who voluntarily cleaned up a Superfund site could not sue other PRPs under section 113 of the law. That section says such lawsuits can only proceed during or following government civil action. Section 107, by contrast, lays out Superfund liability, but its use to recover cleanup costs has been limited by most appellate courts to landowners not responsible for the contamination and the government.

The lower court ruling came weeks before the U.S. Court of Appeals for the 3rd Circuit became the first in the country after Aviall to reject the use of section 107 as an alternative to section 113 in its Aug. 29 ruling in DuPont v. United States.

Previously, the 8th and the 2nd circuits accepted the use of 107 for voluntary PRPs following Aviall, noting that a contrary result would frustrate the purposes of the Superfund law by discouraging cleanup and reimbursement for parties who had fulfilled their cleanup obligations. The 3rd Circuit, however, said nothing in the Aviall ruling would cause it to reevaluate its previous precedent, which had limited 107 use to the government and nonpolluting landowners.

That decision raised the prospect of additional Supreme Court review of Superfund cost recovery issues, according to industry lawyers, who noted the 3rd Circuit's decision created a clear circuit split on using section 107.

Now, the remanded Aviall decision issued Aug. 8 appears headed for review by the 5th Circuit, which originally considered the issue of limiting section 113 to parties who had been sued by the government. While a three-judge panel of the 5th Circuit originally rejected the use of section 113 by PRPs who conducted voluntary cleanups – the position the Supreme Court ultimately embraced – the full 5th Circuit panel during an en banc rehearing overturned the decision and said 113 could be used at voluntary cleanups.

But the 5th Circuit has never weighed in on the use of Section 107. While it would not have to overturn any prior precedent limiting the use of Section 107, as the 2nd and 8th circuits did, or use prior precedent to uphold such limits, as the 3rd Circuit did, its decision could further add to the circuit split on the issue, possibly teeing up additional high court review.

The Texas federal court Aug. 21 denied Aviall's motion to alter its Aug. 8 decision, but the company has not yet formally indicated whether it will appeal the decision to the appellate court.

(Superfund Report – 9/11/06)

INDUSTRY SEEKS HIGH COURT RULING ON SUPERFUND SUCCESSOR LIABILITY

Industry is asking the Supreme Court to resolve what it says is a split among several federal appeals courts on whether stat law or federal common law applies in deciding successor liability in corporate mergers that involve Superfund liability, saying the clarification is needed to prevent millions in unanticipated liabilities. EPA, however, is urging the court not to her the case, United States v. General Battery Corp. and Exide Corp., saying the ruling by the U.S. Court of Appeals for the 3rd Circuit does not specifically contradict any of the decisions industry is citing for the court to grant certiorari.

At issue in the case is a 2005 ruling by a federal court in Pennsylvania that found battery manufacturer Exide liable as a corporate successor for cleanup costs EPA incurred at the Hamburg Lead Superfund Site in Berks County, PA. In doing so, the court applied federal common law principles to determine Exide as a corporate successor. The 3rd Circuit upheld the decision last year, and later refused the company's request for en banc review, prompting the Supreme Court appeal.

But Exide maintains that existing Supreme Court precedents mandate the use of state laws for determining successor liability. In its March 31 petition to the high court, Exide argues that since there is no clear consensus among states for determining successor liability, the 3rd Circuit had to create "a brand new federal law," which an industry attorney says could create an additional lack of clarity across the country and open the door for a new wave of lawsuits.

"Exide's petition should be granted so that [the Supreme Court] may restore certainty to business law and thereby enable businesses purchasing assets and otherwise structuring their affairs to know how their actions may affect their CERCLA liability," the company argues.

The National Solid Wastes Management Association (MSWMA) filed an amicus brief June 1 in support of the company, arguing the 3rd Circuit ruling would subject its members to "many millions of dollars" in potential liability under CERCLA because the court "determined that evolving federal common law, rather than established state law, governs questions of corporate successor liability under CERCLA.

The waste industry has undergone "substantial consolidation" during the last 25 years, and much of that consolidation resulted from transactions conducted according to preexisting state laws, an industry attorney notes. If the courts now opt to rule on successor liability questions based on federal common law, waste companies could be subject o unanticipated liabilities, the source adds.

"A federal common law rule would retroactively upset the well-settled expectations of businesses, including NSWMA members, made in reliance on longstanding state corporate law of successor liability; would disrupt established commercial relationships predicated on that state law; and would create uncertainty in both future commercial transactions in pending and future CERCLA litigation," MSWMA says in its brief.

Exide argues the 3rd Circuit ruling is in conflict with prior Supreme Court decisions the company says mandate "application of state law to fill gaps in federal statutes." Exide cites the Supreme Court's 1994 O'Melveney & Myers v. FDIC in which the court "emphasized the creating of federal common law is justified only 'where there is a significant conflict between some federal policy of interest and the use of state law'." The Supreme Court reiterated

Exide maintains "there is no conflict between Pennsylvania law and CERCLA's purpose of holding liable those responsible for the cost of cleaning up hazardous wastes ... By basing its decision on a need for 'national uniformity' in CERCLA's application... the 3rd Circuit elevated an interest that [the Supreme Court] already has rejected."

Exide argues the 3rd Court ruling "perpetuates a split among the circuit courts of appeals regarding what law applies to successor liability issues under CERCLA." The company says the 1st and 6th Circuits apply state law and the 9th Circuit "seems poised to follow suite" but that the 3rd, 4th and 8th circuits "are still wedded to federal common law."

In its brief arguing against certiorari, the Department of Justice acknowledges the 3rd Circuit's decision to apply a federal common law rule rather than base its ruling on state law "is arguably in tension" with the Supreme Court's rulings in O'Melveny, Atherton and Bestfoods, but adds the 3rd circuit ruling "plainly does not conflict with any of those decisions, because none of them addresses the application of federal common law in the specific context of successor liability under CERCLA. "The government argues that in the Bestfoods case, the court "suggested, without deciding that federal courts adjudicating such issues" should do so based on state law. The government also argues the outcome of the Exide case would have been the same regardless of whether the 3rd Circuit applied federal law or Pennsylvania state law. In its response, Exide argues the government's "cavalier assumption that Pennsylvania would follow the CERCLA successor liability law created by the Court of Appeals is unsupported by the Pennsylvania decisions and derogative of Pennsylvania's sovereign interest in determine for itself how to structure state corporate liability." -Douglas P. Guarino

(Superfund Report – 8/14/06)

DOT TO PROPOSE CHANGES TO HAZARDOUS MATERIAL REGULATIONS

Based on changes to packaging requirements in the United Nations Recommendations on the Transport of Dangerous Goods, and several petitions for rulemaking received by the agency, the DOT has issued a notice of proposed rulemaking http://hazmat.dot.gov/regs/notices/nprm/71fr-52017.htm to revise the hazardous materials regulations. The proposed amendments are intended to clarify certain regulatory requirements specific to bulk and non-bulk packaging. The amendments proposed in this NPRM also include incorporation of requirements for construction, maintenance and use of large packagings, clarification of specification marking requirements and revisions to packaging definitions.

The DOT has issued a notice of proposed rulemaking that will:

1. Revise, remove, and add definitions specific to packaging requirements

2. Amend export and import provisions in 49 CFR 171.12

3. Revise 49 CFR 171.12 table entries for packaging requirements

4. Add and revise special provisions

5. Clarify shippers' responsibilities for complying with packaging standards

6. Clarify requirements for stacking of bulk packaging

7. Correct error in general IBC requirements related to gauge

8. Authorize bromine residue in cargo tanks
 9. Clarify closure instructions for specification

packagings

10. Add exceptions for marking of steel drums 11. Add an exception for marking of UN symbol with a stencil

12. Amend packaging variations

13. Add standards and provision for the manufacture and use of large packagings.

Also, on August 31, DOT proposed "http://hazmat.dot.gov/regs/notices/nprm/71fr-51893.htm" http://hazmat.dot.gov/regs/notices/nprm/71fr-51893.htm to amend the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel storage requirements. These revisions are necessary to harmonize the Hazardous Materials Regulations with recent changes to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods.

(Env. Tip of the Week -9/5/06)

EPA ANNOUNCES NEW COMPUTER EFFICIENCY REQUIREMENTS

With an eye to saving U.S. households and businesses more than \$1.8 billion in energy costs over the next 5 years, EPA announced new Energy Star specifications for computers and related equipment. These new modifications are also expected to prevent greenhouse gas emissions equal to the annual emissions of 2.7 million cars.

"As the driver of America's technology revolution, the innovative spirit of the computer industry is now powering our energy revolution," said EPA Administrator Stephen L. Johnson. "Through Energy Star, President Bush and EPA are brightening our nation's future, and I applaud these leaders for developing energy efficient computers that are good for our environment and good for our wallets."

Under the new specifications, only the most energy-efficient computer related equipment will earn the Energy Star label, representing the top of their class.

The new requirements include improved efficiency across all modes of a computer's operation, and require use of highly efficient internal and external power supplies. The new specifications go into effect on July 20, 2007. If every computer purchased by businesses meets the new Energy Star requirements in effect next year, businesses will save \$1.2 billion over the lifetime of their new computers, equal to lighting 730 million square feet of U.S. commercial building space each year.

Government agencies buying Energy Star will also garner big savings. If the government sector buys only computers that meet the new Energy Star requirements, this sector will save nearly 1.4 billion kWh and reduce greenhouse gas emissions by 2 billion pounds each year.

On average, Energy Star qualifying computer equipment will be 65 percent more efficient than conventional models.

(EPA - 10/23/06)

NEWS BRIEF: NEW DATA SHOW DECLINE IN CHILDREN'S EXPOSURE TO POLLUTANTS

The percentage of children living in counties that do not meet the air quality standard for fine particulate matter declined from 24 percent to 16 percent from 1999 to 2004, according to new data released by EPA.

The data come from an update to America's Children and the environment, EPA's compilation of information from federal databases that provide insights into children's environmental health. The data provides Americans with information about children's exposure to environmental pollutants, and it is an important instrument for the agency to gauge its progress in carrying out its mission.

Other highlights indicate that children under six are less likely to be regularly exposed to secondhand smoke at home, decreasing from 27 percent of children in 1994 to 11 percent in 2003, and the concentration of lead in young children's blood has gone down by 89 percent over a period of 25 years.

The data present measures of trends in environmental factors related to the health and well-being of children in the United States. The measures were previously published in a 2003 EPA report, and this update adds from 2-5 years of additional data for each of the measures.

The data look at trends in environmental contaminant levels in air, water, food, and soil; concentrations of contaminants measured in the bodies of children and women; and childhood illnesses and health conditions such as asthma that may be influenced by exposure to environmental contaminants.

Children may be more vulnerable to environmental exposures than adults because their bodily systems are still developing; they eat more, drink more, and breathe more in proportion to their body size; and their behavior can expose them more to chemicals and organisms.

(EPA – 10/24/06)

NEW RULE BOOSTS PROTECTION OF UNDERGROUND DRINKING WATER

More than 100 million Americans will enjoy greater protection of their drinking water under a new rule issued by the U.S. Environmental Protection Agency. The rule targets utilities that provide water from underground sources and requires greater vigilance for potential contamination by disease-causing microorganisms.

"The Bush Administration's Ground Water Rule boosts drinking water purity and public health security," said Benjamin H. Grumbles, assistant administrator for Water. "These first-ever standards will help communities prevent, detect and correct tainted groundwater problems so citizens continue to have clean and affordable drinking water."

The risk-targeting strategy incorporated in the rule provides for:

 regular sanitary surveys of public water systems to look for significant deficiencies in key operational areas

• triggered source-water monitoring when a system that does not sufficiently disinfect drinking water identifies a positive sample during its regular monitoring to comply with existing rules.

• implementation of corrective actions by groundwater systems with a significant deficiency or evidence of source water fecal contamination compliance monitoring for systems that are sufficiently treating drinking water to ensure effective removal of pathogens.

A groundwater system is subject to triggered source-water monitoring if its treatment methods don't already remove 99.99 percent of viruses. Systems must begin to comply with the new requirements by December 1, 2009.

(EPA - 10/12/06)

SMALL CHANGE IN DOT HAZMAT REGULATIONS HAS BIG IMPACT

The DOT recently changed the exceptions for small quantities of hazardous materials shipped by air. The new provision (49 CFR 173.4 (A) (11) (i < http://hazmat.dot.gov/regs/rules/final/71fr/11fr-14585.htm>)" which became effective October 1, 2006, specifies that for transportation by aircraft, the hazardous material must be authorized to be carried aboard passenger-carrying aircraft.

Prior to this change, up to 30 mL of most hazardous material or up to 1 mL of division 6.1 PG I materials could be shipped under the small quantity exclusion. However, the change adds another condition. If the material is forbidden on passenger aircraft, the small quantity exclusion does not apply. For example, laboratories took advantage of the small quantity provision to ship small quantities of nitric acid by air to be used as a preservative. According to the hazardous materials table at 49 CFR 172.101, nitric acid is forbidden on passenger aircraft. Therefore, it no longer qualifies for the exclusion.

The small quantity exclusion does not exempt a material from all of the Hazardous Material Regulations. Moreover, preserved samples, if they are no longer corrosive

"http://myregs.com/dotrspa/pdffiles/020093.pdf" http://myregs.com/dotrspa/pdffiles/020093.pdf, would not be subject to the Hazardous Materials Regulations. Learn more about how to properly ship all quantities of hazardous materials by attending Environmental Resource Center's hazardous material training

"http://www.ercweb.com/classes/course.aspx?cours e=1014"

http://www.ercweb.com/classes/course.aspx?course =1014.

(Env Tip of the Week - 10/19/06)

ACID RAIN PROGRAM SHOWS CONTINUED SUCCESS AND HIGH COMPLIANCE, EPA REPORTS

The U.S. Environmental Protection Agency released its acid Rain Program 2005 Progress Report, marking the 11th year of one of the most widely regarded and successful environmental programs in U.S. history. Since 1995, the program has significantly reduced acid deposition in the United States by decreasing sulfur dioxide (SO2) and nitrogen oxides (NOx) emissions. Due to rigorous emissions monitoring and allowance tracking, overall compliance with the Acid Rain Program has been consistently high – nearly 100 percent. There were no units out of compliance in 2005.

In 2005, SO2 emissions from electric power generation were more than 5.5 million tons below 1990 levels. NOx emissions were down by about 3 million tons below 1990 levels. The program's emission cuts have reduced acid deposition and improved water quality in U.S. lakes and streams.

The emission reductions to date also have

resulted in reduced formation of fine particles, improved air quality, and human health related benefits. A 2005 analysis in the "Journal of Environmental Management" estimated the value of the program's human health and environmental benefits in the year 2010 to be \$122 billion annually (2000\$) Most of these benefits result from the prevention of air quality-related health impacts, such as premature deaths and workdays missed due to illness, but they also include improved visibility in parks and other recreational and ecosystem improvements.

Issued in March 2005, the Clean Air Interstate Rule (CAIR) will build upon the Acid Rain Program to further reduce SO2 and NOx emissions. CAIR achieves large reductions of SO2 and NOx emissions across 28 eastern states and the District of Columbia. When fully implemented, CAIR will reduce SO2 emissions in these states by more than 70 percent and NOx emissions by more than 60 percent from 2003 levels.

The Acid Rain Progress report summarizes human health and environmental improvements due to the program. The report also includes sections on compliance strategies, surface water quality monitoring, environmental justice, and EPA's framework for accountability.

(EPA - 10/16/06)

EMISSIONS TRADING ALTERNATIVE WILL HELP IMPROVE VISIBILITY **IN NATIONAL PARKS**

To help state and tribal governments improve visibility in national parks and wilderness areas, EPA has finalized an emissions trading program for its Clean Air Visibility Rule. The emissions trading program provides states and tribes with an alternative approach for applying Best Alternative Retrofit Technology (BART). The BART requirements would be satisfied if the trading program meets or exceeds the visibility benefits resulting from BART.

The BART requirements of the clean Air Visibility Rule apply to industrial facilities, built between 1962 and 1977, that emit air pollutants that reduce visibility by causing or contributing to regional haze. The Clean Air Visibility Rule, including the BART requirements finalized on June 15, 2005, will provide approximately \$240 million annually in visibility improvements in southeastern and southwestern parks. The rule will also provide substantial health benefits in the range of \$8.4 -49.8 billion each year - preventing an estimated 1,600 premature deaths, 2,200 non-fatal heart attacks, 960 hospital admissions, and more than 1 million lost school and work days. The total annual costs of this rule range from \$1.4 to \$1.5 billion. This rule applies to an emissions trading alternative that states and tribes may use to improve visibility in specially protected areas.

Information about EPA's regional haze program, and the trading program announced can be found at "http://www.epa.gov/visibility" http://www.epa.gov/visibility.

(EPA - 10/6/06)

FIRST-TIME STUDY LINKS PERCHLORATE **RISKS TO ONE-THIRD OF U.S. WOMEN**

Federal health researchers have concluded in a first-time study of perchlorate risks that over a third of women may be at risk for thyroid impacts as a

result of food and water exposure to the rocket fuel contaminant, a finding which, if confirmed, may lead EPA to significantly tighten its current perchlorate safety limit, agency sources say.

A stricter safety standard for perchlorate exposures would likely require increased groundwater cleanup at Superfund sites and establish costly new controls for drinking water utilities who may face strict new limits.

The finding indicates that perchlorate exposures "can cause metabolic problems in adults and abnormal neurodevelopment during gestation and infancy," according to an October 5 summary by the

journal Environmental Health Perspectives. Men were not found to be at risk at the same exposure levels.

In the study, Urinary Perchlorate and Thyroid Hormone Levels in Adolescent and Adult Men and Women Living in the United States, Centers for Disease Control & Prevention (CDC) researchers examined 1,111 women and found the body's hormone regulation pattern was disturbed in 36 percent of women with low iodine levels as a result of perchlorate exposure.

(Superfund Report – 10/9/06)

FEDERAL CLIMATE CHANGE **TECHNOLOGY PLAN RELEASED**

The U.S. Department of Energy, DOE, released the Climate Change Technology Program Strategic Plan, CCTP, which details measures to accelerate the development and reduce the cost of technologies that avoid, reduce, or capture and store greenhouse gas emissions.

Stephen Eule, DOE director for the CCTP, said, "The technologies outlined in the Plan - hydrogen, biorefining, clean coal, carbon sequestration, nuclear fission and fusion, and others - have the potential to transform our economy in fundamental ways and can address not just climate change, but energy security, air pollution, and other pressing needs.'

The strategy includes measures to slow the growth of greenhouse gas emissions through voluntary, incentive-based, and mandatory partnerships. It supports more climate change scientific research, spurs clean energy technology development and deployment, and promote international collaboration.

Energy Secretary Samuel Bodman said, "This Strategic Plan is unprecedented in its scope and scale and breaks new ground with its visionary 100 year planning horizon, global perspective, multi-lateral research collaborations, and public private partnerships."

The CCTP Strategic Plan organizes roughly \$3 billion in federal spending for climate technology research, development, demonstration, and deployment to reduce greenhouse gas emissions and increase economic growth.

It provides a long-term planning context, establishes principles for formulating research and development portfolios to identify areas for reductions in greenhouse gas emissions, and highlights technology strategies and investment criteria.

The Plan sets six goals:

· reducing emissions from energy use and infrastructure;

• reducing emissions from energy supply;

· capturing and sequestering carbon dioxide;

• reducing emissions of other greenhouse gases;

· measuring and monitoring emissions

· bolstering the contributions of basic science to climate change.

The Plan is the outcome of coordination through government working groups, expert review, and public comment. A draft Strategic Plan was released in September 2005 and over 250 comments were received during the public comment period.

To view the CCTP Strategic Plan, visit the CCTP website at:

"http://www.climatetechnology.gov/" http://www.climatetechnology.gov/

(ENS - 9/21/06)

NEW EPA PROPOSAL SUGGESTS RENEWED **BID FOR BROAD WASTE LAW WAIVERS**

After months of delay, EPA is gearing up to repropose its controversial definition of solid waste (DSW) rule, which industry sources say suggests the agency will seek to provide a broad exemption from waste rules for recycled material, rather than a narrower option favored by states, environmentalists and the waste treatment industry.

One informed source says the broad exemption could provide industry with wide-ranging discretion to determine what is recyclable and therefore exempt from EPA waste rules. "If it is not discarded then it is recycled," the source says.

Any broad exemption could provide industry with a host of benefits, including limiting cleanup, worker training, and manifest and financial assurance requirements since the rule would exempt many materials from waste management rules, sources say.

However, any EPA plan to move forward with a broad exemption from waste rules is likely to draw stiff opposition from some states, the waste treatment industry and environmentalists who are concerned that it could lead to an increase in hazardous waste contamination and more Superfund sites, sources say, noting that many of the sites placed on the Superfund cleanup list were former waste recycling operations that went bankrupt.

EPA's bid to move forward with a broad exemption comes as chemical and aluminum manufacturers are urging the agency to provide special exemptions for materials and practices used in their industry sectors and to ease regulatory requirements as a way to encourage recycling.

The agency submitted a draft version of the reproposed rule Oct. 5 to the Office of Management & Budget (OMB). An EPA spokesperson says the agency is "on schedule" to release the repurposed rule later this year. The spokesperson could not comment on the content of the pending proposal.

(Superfund Report - 10/23/06)

STORMWATER SITE PLAN APPROVALS IN PA -SEE THE NOVEMBER 4 PA BULLETIN . . NEW PA **PRIVATIZATION APPROACH!**

NJ REGULATORY UPDATES

NEW JERSEY ADDRESSES PUBLIC CONCERNS OVER REMEDIATION HAZARDS

The New Jersey Department of Environmental Protection (DEP) is proposing to expand the Technical Requirements for Site Remediation to enhance public notification of remediation work. The new system will require more direct communication with the public when sites are of high local concern.

The proposed rules were in the New Jersey Register in August 2006 with expected adoption in the fall. Meanwhile, the DEP Office of Community Relations has developed an interim guidance for those who wish to enhance outreach in communities where remediation work is taking place.

Officials caution that this guidance should not be construed as an alternative to the state statutes guiding remediation in New Jersey. At any site, the party responsible for conducting the remediation must do so pursuant to New Jersey's Technical Requirements for Site Remediation.

But the state says early, two-way communication with residents, business owners and local officials affected by remediation activities is critical to a successful investigation and cleanup, especially when future uses include public recreation or housing.

With an effective outreach strategy, the parties responsible for the remediation can anticipate the needs and concerns of the community and deal with them proactively.

Effective outreach creates a forum to share information and raise and address community concerns about future use early in the remediation process. This effort can save time and money and build critical community support.

Risk of exposure to hazardous materials during the remediation can be a local concern, even when all technical requirements are met. Whether these concerns are scientifically based or perceived, they pose a real obstacle to progress if not addressed.

"We often hear from the public that they do not know what is taking place on the property next door or across the street," says the Office of Community Relations.

The guidance encourages the remediating party to notify nearby property owners and tenants and the community living and working nearby prior to any field activities associated with remedial investigation or a single phase remediation, either by the posting of appropriate signage or by direct notice.

The DEP is urging developers to recognize "sensitive populations" and inform the DEP, the municipal clerk, and the local health official before starting any field activities associated with the remedial investigation or a single phase remediation.

In addition, the DEP is asking developers to be aware of Environmental Justice Petition Neighborhoods. For more information, call 609-292-2885 or visit the NJDEP Environmental Justice website at:

"http://www.nj.gov/dep/ej"\t "_blank" www.nj.gov/dep/ej. The new guidelines were covered during a brownfields to greenfields redevelopment conference hosted by the DEP that brought municipal officials, environmental commissioners and nonprofit organizations together to discuss new approaches to brownfield redevelopment.

(ENS - 7/31/06)

NEW DEP HDSRF FORMS AVAILABLE

The Office of Brownfield Reuse has announced that the new Hazardous Discharge Site Remediation Fund (HDSRF) application form is now available. An electronic copy will soon be found on the Office of Brownfield Reuse web site. For those unfamiliar with HDSRF, it was established in July 1993 in conjunction with the Industrial Site Recovery Act to provide funding to public entities (municipalities, counties, and redevelopment agencies), qualifying private entities (businesses, corporations, homeowners, etc.) and non-profit organizations for the investigation and/or remediation of a suspected or known discharge of a hazardous substance.

In 2003, the HDSRF received additional funding through an appropriation and permanent allocation of monies for loans and grants to the program. In September 2005, the HDSRF was expanded through amendments to the Statue to increase the availability of grants and loans to public entities, private entities, and non-profit organizations described in section 501(c) (3) of the federal internal revenue code.

Also available is a spreadsheet that summarizes the most recent revisions to the HDSRF. For more information, contact Stephen Kehayes, Office of Brownfields Reuse, HYPERLINK "mailto:Stephen.Kehayes@dep.state.nj.us" Stephen.Kehayes@dep.state.nj.us, (Telephone) 609-777-0649.

NEW JERSEY PLEDGES FUND TO RESTORE EDISON'S TOWER

New Jersey will invest \$1.8 million to repair and restore a tower that commemorates the work of Thomas Edison, state officials announced.

The funds will go to preserve the Edison Memorial Tower in Edison State Park in New Jersey's Middlesex County.

The 131-foot, cast-concrete art deco tower was built in 1937, but it has fallen into disrepair and is crumbling.

"The Edison Tower is a priceless piece of New Jersey's history, and yet, it has been closed to the public for the past decade because of deferred maintenance," Department of Environmental Protection (DEP) Commissioner Lisa Jackson said. "Thanks to Governor Corzine's leadership, this year's state budget allows us to begin restoring this monument."

The tower's location marks the spot of the archaeological remains of Thomas Edison's 1876 industrial research complex. The tower site is listed on both the New Jersey and National Registers of Historic Places and is significant for its architectural design and archaeology.

The tower and Menlo Park Museum, also constructed in 1937, were dedicated Feb. 11, 1938 to commemorate Thomas Edison's 91st birthday.

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- Grace Period Rule, pg. 20
- New Feature NJDEP Notices, pg. 22

While working in his Menlo Park laboratory, Edison received nearly 400 patents from 1876 to 1882. Edison and his staff developed the first system of incandescent electric lighting, the phonograph and the electric railroad car.

(ENS - 9/11/06)

LAW DIVISION EXCLUDES "LOST USE" FROM NATURAL RESOURCE DAMAGES UNDER SPILL ACT

The Superior Court, Law Division - Union County, recently held that Exxon Mobil Corporation is liable to the New Jersey Department of Environmental Protection ("NJDEP") pursuant to the Spill Compensation and Control Act, N.J.S.A. 580-23.11a et seq. ("Spill Act") for natural resource damages ("NRD") to restore natural resources injured by discharges of hazardous substances from two refineries. Damages for "lost use" of these natural resources, however, are not available pursuant to the Spill act. New Jersey Department of Environmental Protection and Administrator, Spill Fund v. Exxon Mobil Corporation, Docket No. UNN-L-3026-04 (May 26, 2006). The decision has significance for thousands of contaminated sites for which NJDEP has announced its intention to seek NRD for lost use of groundwater.

Using private outside counsel, NJDEP sought recovery of NRD from Exxon Mobil arising from historic discharges of hazardous substances from two petrochemical facilities in Linden and Bayonne, New Jersey, known as the Bayway Refinery and Bayonne Refinery. Exxon Mobil's predecessor had entered into a 1991 Administrative Consent Order to remediate the refineries. NJDEP filed its complaint in August 2004, seeking NRD based upon three causes of action: Spill Act, public nuisance, and trespass. The decision addresses only the Spill Act claim.

NJDEP moved for summary judgment on Spill Act liability for NRD and for funding of a natural resource restoration plan. Exxon Mobil crossmoved, asserting that damages for "lost use" of natural resources are not available under the Spill Act. NRD for "lost use" typically compensates the public for the value of the services provided by the natural resources that are lost or impaired as a result of a discharge, including, for example inability to use groundwater for drinking

purposes. At the federal level, trustees of natural resources have long asserted claims for loss of services of natural resources that arise from a release of hazardous substances. Exxon Mobil argued that the plain language of the Spill Act does not authorize damages for such lost use of groundwater.

The Court agreed with Exxon Mobil. Following dicta of the New Jersey Supreme Court's decision in In re Kimber Petroleum

NJ REGULATORY UPDATES (Continued)

Corp., 110 N.J. 69 (1988), the Court determined that "restoration" and "replacement" of damaged natural resources falls within the "cleanup and removal costs" recoverable by NJDEP pursuant to the Spill Act. Slip op. at 5-6. However, damages for lost use of such natural resources does not constitute restoration or replacement. The Court relied on the lack of any specific language in the Spill Act suggesting that damages for lost use of natural resources are recoverable. Id. at 7-8.

Given that NJDEP's efforts to recover NRD at thousands of contaminated sites are based, at least in part, on recovery of "lost use" of groundwater, this decision is very significant. NJDEP has sought leave to appeal. Publicly, representatives of the agency maintain that the decision will have no effect on the NJDEP's filing of further NRD lawsuits, including claims for lost use of groundwater, or the development of a robust NRD program. We expect that these issues will be further addressed in the courts and through agency policy and rulemaking.

(Riker Danzig Env. Update - 9/06)

RULES SET FOR FIRST STATE CO2 CAP-AND-TRADE PROGRAM

The seven Northeast states participating in the first U.S. multi-state program to reduce harmful climate changing emissions from power plants have released a model set of regulations to be proposed in each state to implement the program.

The Regional Greenhouse Gas Initiative (RGGI) creates a mandatory carbon dioxide emissions cap, combined with a market-based trading system that rewards innovative companies for quick action and lowers overall costs.

This is the first mandatory cap-and-trade program for carbon dioxide (CO2) emissions in U.S. history. The states participating in RGGI are: Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York and Vermont. The state of Maryland recently adopted legislation requiring Maryland to join RGGI by June 2007.

The agreement caps power plant emissions at current levels beginning in 2009 and starts ramping down the limit in 2015, giving companies ample time to prepare for the new targets. By 2019, targets will be set 10 percent below current emissions.

Estimates project that average household bills could increase by approximately \$3-21 annually above what they otherwise would have been. But the deal includes innovative measures to protect consumers, who can expect to see less pollution as well as lower energy bills due to new investment in energy efficiency.

"Elected officials all across the country should be watching what these governors have accomplished by setting aside political rhetoric and getting down to the business of real global warming solutions," said Dale Bryk, an attorney at the Natural Resources Defense Council who has been closely involved in the process.

"What they are doing here is going to set a sensible, achievable pace for the rest of the country, and create a new wave of investment in cleaner, more efficient energy technologies," said Bryk.

Under the cap-and-trade program, the states

will issue one allowance, or permit, for each ton of CO2 emissions allowed by the cap. Each plant will be required to have enough allowances to cover its reported emissions. The plants may buy or sell allowances, but an individual plant's emissions cannot exceed the amount of allowances it possesses.

The total amount of the allowances will be equal to the emissions cap for the region. Coal, oil and gas-fired electric generating units with a capacity of 25 megawatts or more will be included under RGGI.

(ENS - 8/21/06)

NJDEP ANNOUNCES LAND USE PERMIT CONDITIONS ENFORCEMENT INITIATIVE

NJDEP's Bureau of Coastal and Land Use Compliance and Enforcement ("CLUE") is conducting an initiative to monitor and enforce all conditions and limitations of NJDEP land use permits including freshwater wetlands permits, Coastal Area Facility Review Act permits, stream encroachment permits, waterfront development permits, coastal wetlands permits, and Highlands Preservation area Approval permits. Developers conducting activities subject to these permits can anticipate a CLUE inspection during the project's site preparation and construction phases. Permit holders are responsible to comply with the specific conditions of each permit, and failure to comply may result in notices of violation and/or penalty assessments. Common transgressions include failure to: (1) file a permit with the county clerk; (2) gain NJDEP approval of deed restrictions or conservation easements and to file them with the county clerk prior to initiating regulated activities; (3) apply for a permit modification when project specifications change or a permit changes hands; (4) notify NJDEP prior to commending construction; and (5) maintain the permit and a full set of approved plans on site

(MGKF Client Alert - 8/06)

NEW JERSEY TO CURB EMISSIONS OF SMALL STATIONARY DIESELS

New Jersey is proposing to curb the emissions of small stationary diesel engines. A large number of these small engines, roughly between 75 and 400 horsepower (hp), represent almost 80 percent of current inventory of diesel stationary engines in the state, but they are not covered under current regulations.

The New Jersey Department of Environmental Protection (DEP) says it aims to reduce particulate matter for which the state is in non-attainment of federal air quality standards in many areas.

Current measures in the New Source Review sections of existing state regulations, or of the State-Of-The-Art and State Reasonably Achievable Control Technologies regulations in New Jersey do not enforce monitoring and controlling of all emissions from stationary diesel engines that are less than 100 kilowatts and/or have the potential to emit less than five tons per year.

In addition, the DEP says, the State Title V operating permit addresses only significant sta-

tionary sources that are located at major sources. Their emissions are based on a mass rate such as pound per hour or tons per year and not on engine power output such as grams per horsepower hour. Retrofitting diesel engines greater than 50 hp with add-on controls, combined with the use of ultra-low sulfur diesel fuel, should reduce particulate matter by 97 percent and nitrogen oxides, NOx, by at least 80 percent compared to uncontrolled levels, the agency proposes.

Emissions of sulfur dioxide, which contributes to acid rain will also be reduced through the use of ultra-low sulfur diesel.

View DI014 – Control Measures for Stationary Diesel Engines online at:

"http://www.state.nj.us/dep/airworkgroups/comments.htm" \t "_blank"

http://www.state.nj.us/dep/airworkgroups/comments.html.

Email comments to: HYPERLINK "mailto airworkshop@dep.state.nj.us" airworkshop@dep.state.nj.us

UNDERGROUND STORAGE TANKS: CERTIFICATION TO PERFORM SERVICES ON UNREGULATED HEATING OIL TANKS

Summary of Action: N.J.A.C. 7:14B. P.L. 2006, c. 58 (which amended the underground storage tank provisions of the Water Pollution Control Act (the Act)), requires the Department to establish in the Underground Storage Tanks rules at N.J.A.C. 7:14B a certification program for tank testing, tank installation, tank removal, tank closure, and subsurface evaluations for corrective action, closure or corrosivity on unregulated heating oil tanks (generally, those heating oil tanks for on-site consumption in residential buildings, and those in nonresidential buildings with a capacity of 2000 gallons or less and that are at least 10 percent below the ground).

The law also mandates that a grant or loan from the fund established under the Underground Storage Tank Finance Act to close or replace an unregulated heating oil tank may only be made to reimburse the applicant for work performed by a person certified by the Department.

The rules will be effective for a period not to exceed 18 months. They will be proposed to be readopted within that time period. That proposal will be subject to public comment and thereafter be adopted before the expiration date of the specially adopted interim rules.

The interim rules establish the general requirements for individuals and business firms to become certified to perform various services on unregulated heating oil tanks, after passing an examination. The Department anticipates it will have the examination program in place in the spring of 2007. The rules provide that, as of the date the Department publishes a notice in the NJ Register and on the DEP website that the examinations are available, only individuals or firms certified under the interim rules may perform services on unregulated tanks. The interim rules also establish certification renewal requirements, financial responsibility assurance provisions, and revocation provisions. The special adoption also includes amendments to the Oversight rules at

NJ REGULATORY UPDATES (Continued)

N.J.A.C. 7:26C to establish penalties and grace periods for violations of the interim rules.

Once the certification program is established the owner or operator of an unregulated heating oil tank system shall ensure that all services performed on unregulated heating oil tank systems are performed by an individual or under the immediate, on-site supervision of an individual certified under N.J.A.C. 7:14E-13 or N.J.A.C. 7:14B-16.

SITE REMEDIATION PROGRAM GRACE PERIOD RULES

Summary of Action: The Department of Environmental Protection is adopting amendments to the Department Oversight of the Remediation of Contaminated Sites Rules, N.J.A.C. 7:26C (Oversight Rules) to set forth penalties for violations of the Underground Storage Tank Rules, N.J.A.C. 7:14B, the Industrial Site Recovery Act Rules, N.J.A.C. 7:26B, the Oversight Rules, N.J.A.C. 7:26C, and the Technical Requirements for Site Remediation Rules, N.J.A.C. 7:26E, and identify these violations as either minor or non-minor for the purpose of providing grace periods in accordance with the Fast Track Compliance Act, N.J.S.A. 13:1D-125 et seq., (commonly known as the Grace Period Law.) The amendments to these rules set forth how the Department will respond to any violation identified as minor. In addition to the amendments to the Oversight Rules at N.J.A.C. 7:26C-10, the Department is adopting amendments to the Oversight Rules at N.J.A.C. 7:26C-3 regarding the memoranda of agreement (MOA) application and termination procedures, and to the Standard ISRA RA at N.J.A.C. 7:26B, Appendix A and the Standard Administrative Consent Order contained in the Oversight Rules at N.J.A.C. 7:26C, Appendix A in order to make the provisions of these two agreements consistent with each other.

Operative Date: September 18, 2006

CONTROL AND PROHIBITION OF MERCURY EMISSIONS, N.J.A.C. 7:27-27A-3.10

Summary of Action: The New Jersey Department of Environmental Protection (Department) is adopting amendments to the standards and procedures for the control and prohibition of mercury from coal-fired boilers. These amendments would modify rules adopted on December 6, 2004, which establish requirements for the coal-fired boilers in the State and for certain other sources of mercury emissions to the air. The 2004 rule required the seven coalfired facilities with 10 coal-fired electric steamgenerating units in the State to comply with the mercury emission limits by December 15, 2007, or by December 15, 2012, for up to half of a company's New Jersey coal-fired capacity, if a company commits to effectively control emissions of nitrogen oxides, sulfur dioxide, and particulates, along with mercury, on its entire New Jersey fleet.

Operative Date: September 14, 2006.

DEP COMMISSIONER JACKSON PLEDGES EFFICIENT POLLUTION CLEANUP DURING SENATE COMMITTEE HEARING

In testimony before the Senate Environment Committee today, Department of Environmental Protection Commissioner Lisa P. Jackson outlined aggressive plans to ensure protection of public health by spurring timely and thorough cleanups of contaminated properties.

Commissioner Jackson discussed the creation of a system within DEP's Site Remediation Program to prioritize cleanups of properties that pose the greatest environmental threats and requested the Legislature to set a more stringent health standard for cleanups of sites that could be used for residences, schools or child-care facilities.

"The state has in excess of 16,000 contaminated sites. These range from minor leaks of residential heating oil tanks to federal Superfund sites," Commissioner Jackson said. "It is crucial that we effectively track progress of remediation efforts at these sites. And it is equally important that the public, our partners in local government, the development community and lending institutions have real-time computerized access to this information – not simply a list that is published every few years."

Commissioner Jackson testified during a hearing on S-2261, a bill sponsored by Sen. Fred H. Madden, Jr., that stems from mercury contamination at Kiddie Kollege, a child-care center that operated at a former thermometer plant in Franklin, Gloucester County.

Among its provisions, the bill prohibits issuance of construction permits for any building that has been used for industrial or other highhazard purposes until the builder receives a "No Further Action" letter from the DEP.

The new site-tracking system will integrate Geographic Information System technology and DEP databases to rank sites based on factors such as extent of contamination and proximity to water supplies. It will be used to prioritize cleanup orders to responsible parties and to evaluate when public funds are needed to get cleanups under way.

In addition, the Commissioner proposed creating of a program to issue licenses to professionals to evaluate and oversee cleanups at sites that pose less serious environmental health threats, freeing DEP staff to focus on sites with more pressing issues.

(NJDEP – 10/23/06)

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

NEW JERSEY'S PROPOSED RULE: PCBs, POLLUTANT MINIMIZATION PLANS

NJDEP has a new Proposed Rule entitled Monitoring and Pollutant Minimization Plans for Polychlorinated Biphenyls. The new rule is being proposed by the NJDEP in an effort to reduce PCB loading to New Jersey's PCB- impaired waters by requiring discharges to develop and implement PCB Pollutant Minimization Plans (PMPs). The rule, which closely resembles a similar rule adopted in 2005 by the Delaware River Basin Commission (DRBC), will likely be finalized by the end of 2006.

NJDEP ISSUES GRACE PERIOD RULE GUIDANCE

NJDEP has amended subchapter 10 of the Department Oversight of the remediation of Contaminated Sites rule, N.J.A.C. 7:26C (Oversight Rule), to set forth penalties for violations of portions of the Underground Storage Tank Rule, N.J.A.C. 7:14B (UST Rule), the Industrial Site Recovery Act Rule, N.J.A.C. 26B (ISRA Rule), the Oversight Rule, and the Technical Requirements for Site Remediation Rules, N.J.A.C. 7:26E (Technical Requirements). Through the amendments the Department has identified these violations as either minor or nonminor in accordance N.J.S.A. 13:1D-125 et seq, commonly known as the Grace Period Law. In addition, the Department has amended Subchapter 3 of the Oversight Rules regarding the Memoranda of Agreement (MOA) application and termination process, establishing a period of time, consistent with the grace period applicable for non-MOA cases, for the correction of deficiencies prior to MOA termination. The rule adoption was published in the New Jersey Register on September 18, 2006, and the rule became effective on that date.

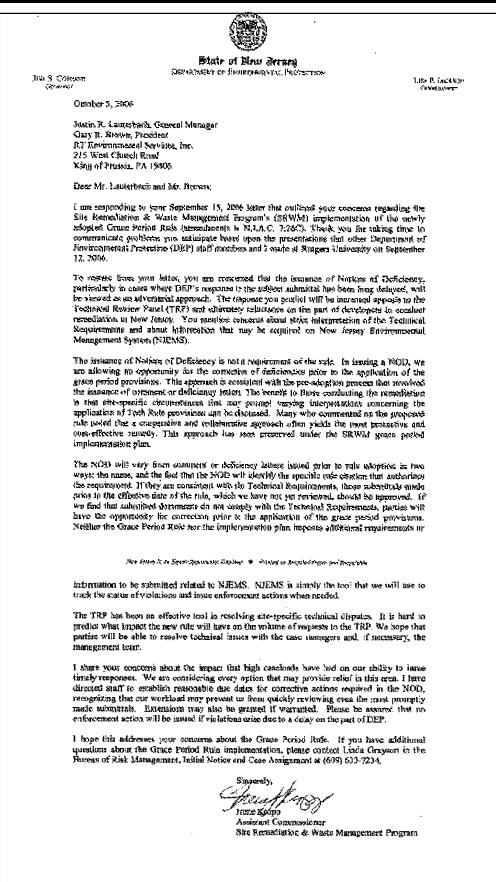
The Department has made some policy and procedural changes to facilitate implementation of this rule amendment. Parties responsible for conducting remediation will receive a Notice of Deficiency (NOD) in lieu of the comment or deficiency letter formerly issued in response to deficient submittals. An opportunity will be afforded to correct deficiencies before they are considered to be minor or non-minor violations subject to the rule provisions included in N.J.A.C. 7:26C-10. Correspondence related to a party's failure to comply with their obligations under a rule or oversight document, including failure to comply with the Technical Requirements at N.J.A.C. 7:26E, will be relayed to the party who is obligated to comply rather than to their designated agent, consultant or attorney. Conditional approvals will no longer be issued. Full compliance with the Technical Requirements and the Department's comments is required prior to the approval of submittals related to remediation.

A key issue associated with this change is the long historical delays associated with review of reports. RT's clients have been informed of changes in NJDEP procedures, which can result in findings of deficiencies, even though the work may have been acceptable when completed.

RT has corresponded with NJDEP Assistant Commissioner Irene Kropp, who has responded as found on the next page:

We thank Assistant Commissioner Kropp for responding and expressing sensitivity on this issue. Should you have any questions, call Justin Lauterbach at 856-467-2276.

NJ REGULATORY UPDATES (Continued)



NJDEP NOTICES

Notice of Rule

Underground Storage Tank Rules N.J.A.C. 7:14b-3.1, 3.2, 3.3, 3.5, 3.7 and 3.10; Industrial Site Recovery Act Rules N.J.A.C. 7:26b-8.1 AND 8.4; AND THE Department Oversight of the Remediation of Contaminated Sites; N.J.A.C. 7:26C-9.2 Proposal Date: 11/06/2006 Comment Period closes: 1/5/2007 Notice of Rule Discharges of petroleum and Other Hazardous Substances, N.J.A.C. 7:1E Proposal Date: 10/16/2006 Comment Period closes: 12/15/2006

Notice of Rule

Well Construction and Maintenance; Sealing of Abandoned Wells Rules, N.J.A.C. 7:9D Proposal Date: 10/16/2006 Comment Period closes: 12/15/2006

Notice of Rule

Flood Mitigation Rules, N.J.A.C. 7:13, N.J.A.C. 7:7 and N.J.A.C. 7:7E

The NJ Department of Environmental Protection is proposing to repeal the existing Flood Hazard Area Control rules, N.J.A.C. 7:13, and to adopt new rules in its place that will incorporate more stringent standards for development in flood hazard areas and adjacent to surface waters. The Department's experience in administering N.J.A.C. 7:13, as well as the recent flood events in the State, have demonstrated the need to adopt new rules that will better protect the public from the hazards of flooding, preserve the quality of surface waters and protect the wildlife and vegetation that exist within and depend upon such areas for sustenance and habitat. The Department is also proposing related amendments to the Coastal Permit Program rules, N.J.A.C. 7:7, and to the Coastal Zone Management rules, N.J.A.C. 7:7E, in order to ensure better consistency with N.J.A.C. 7:13 as regards development in flood hazard areas and procedures are proposed to be relocated into N.J.A.C. 7:13 from the Ninety-Day Construction Permits rules, N.J.A.C. 7:1C, so that all Proposal Date: 10/2/2006

Comment Period closes: 12/31/2006

Notice of Rule

N.J.A.C. 7:27-14, Control And Prohibition of Air Pollution from Diesel-Powered Motor Vehicles, and N.J.A.C. 7:27A, Air Administrative Procedures and Penalties Proposal Date: 9/18/2006

Comment Period closes: 11/17/2006

Notice of Rule

New Jersey Pollutant Discharge Elimination System (NJPDES) Requirements for Indirect Users – Dental Facilities, N.J.A.C. 7:14A-21.12 The NJ Department of Environmental Protection is proposing new rules at N.J.A.C. 7:14A-21

N.J.A.C. 7:26C - Department Oversight of the Remediation of Contaminated Sites

On October 2, 2006, the Department of Environmental Protection adopted special amendments and new rules to the Underground Storage Tank Rules, N.J.A.C., 7:14B and amendments to the Department Oversight of the Remediation of Contaminated Sites rules,

N.J.A.C. 7:26C. These amendments and new rule were effective upon filing (October 3, 2006) HYPERLINK "http://www.nj.gov/dep/srp/regs/oversignt/" http://www.nj.gov/dep/srp/regs/oversignt/

10/4/2006 NOTICE OF RULE AMENDMENT ADOPTION

Effective October 2, 2006, the Division of Land Use Regulation adopted amendments to the Freshwater Wetlands Protection Act rules (N.J.A.C. 7:7A-11) and the Coastal Permit Program rules (N.J.A.C. 7:7-10) which increased the permitting fees by 20% and established additional fees for major developments requiring stormwater/water quality review in accordance with the Stormwater Management rule (N.J.A.C. 7:8). The fee increase affects all permits and authorizations pursuant to the Freshwater Wetlands Protection Act, the Coastal Area Facilities Review Act (CAFRA), the Waterfront Development Law and the Wetlands Act of 1970.HYPERLINK "http://www.state.nj.us/dep/landuse/announce.html" http://www.state.nj.us/dep/landuse/announce.html

Soil Sampling Guidelines for Child Care Centers

HYPERLINK "http://www.state.nj.us/dep/dccrequest/soilsampling.htm" http://www.state.nj.us/dep/dccrequest/soilsampling.htm 10/20/06

Interim Guidance for the Approval of Drinking Water Sources for Child Care Facilities

HYPERLINK "http://www.nj.gov/dep.dccrequest/safedrnk.htm" http://www.nj.gov/dep.dccrequest/safedrnk.htm 10/30/06

PROPOSED RULEMAKING:

PENNSYLVANIA BULLETIN NOTICES

Coal Mine Reclamation Fees and Reclamation of Bond Forfeiture Sites 8/5/06

REGULATIONS:

The Department of Environmental Protection published proposed revisions to the State Implementation Plan covering RACT for the 8-Hour Ozone Standard for comment.

8/11/2006

TECHNICAL GUIDANCE:

The Department of Environmental Protection published a notice of final the General Plan Approval/Operating Permit for Dry Abrasive Blasting Operations, a draft policy on locational data for water use systems and a final policy on radon certification. 8/11/06

Proposed Revisions to General Plan Approval and General Operating Permit

The Department of Environmental Protection (Department) proposes to revise the following general plan approval and operating permit: BAQ-GPA/GP-3 (GP-3) for portable nonmetallic processing plants. 8/12/0t6

Availability of Final General Plan Approval and/or General Operating Permit for Landfill Gas-fired Simple Cycle Turbines (BAQ-GPA/GP-22)

8/19/06

Proposed Temporary Amendments to the Water Quality Regulations, Water Code and Comprehensive Plan to Extend the Designation of the Lower Delaware River as a Special Protection Water 8/25/06

REGULATIONS:

The Department of Environmental Protection published proposed regulations governing mine opening blasting.

9/1/06

TECHNICAL GUIDANCE:

The Department of Environmental Protection this week published a proposed manual for water and wastewater system operators. 9/8/06

TECHNICAL GUIDANCE:

The Department of Environmental Protection published notice of new General NPDES Permit for Concentrated Animal Feed Lot Operations, and a change in the guidelines for the Small Business Advantage Grant Program. 9/15/06

TECHNICAL GUIDANCE:

The Department of Environmental Protection published proposed revisions to the PA Drinking Water Information System User Manua 9/22/06

Renewal of General Permit No. WMGR038; Renewal and Availability

Under the authority of the solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P.S. §§ 4000.101 – 4000.1904) and the Residual Waste Processing Facilities and the Beneficial Use of Residual Waste other than Coal Ash, the Department of Environmental Protection (Department) announces the renewal and availability of General Permit No. WMGR038. The general permit is renewed for 10 years. 10/13/06

CALIFORNIA EMISSION STANDARDS

The Independent Regulatory Review Commission approved the final Environmental Quality Board regulation adopting California vehicle emission standards for new cars.

11/4/06

FEDERAL REGISTER NOTICES

http://www.epagov/homepage/fedrgstr

Environmental Protection Agency Mercury Switches in Motor Vehicles; Proposed Significant New Use Rule

(Federal Register -7/11 /06) **Council on Environmental Quality** Environmental Management Systems and the National Environmental Policy Act The proposed guide, "Aligning the Complementary Processes of Environmental Management Systems and the National Environmental Policy Act," is available at HYPERLINK "http://www.nepa.gov" http://www.nepa.gov in the Current Developments section

(Federal Register -7/17 /06)

Environmental Protection Agency Hazardous Waste Management System; Modification of the Hazardous Waste Program; Cathode Ray Tubes; Final Rule

(Federal Register -7/28/06)

Department of Defense; Department of the Army, Corps of Engineers Proposal to Reissue and Modify Nationwide Permits; Notice (Federal Register -9/26/06)

Environmental Protection Agency A Framework for Assessing Health Risks of Environmental Exposures to Children availability of a final report

(Federal Register -10/13/06)

Environmental Protection Agency Revisions to Ambient Air Monitoring Regulations; Final Rule

(Federal Register -`10/17 /06)

KEY HIGHLIGHTS

FEDERAL UPDATES

- Mercury in Car Switches, pg. 10
- Hazwaste Manifest Changes, pg. 10
- Dry Cleaners Air Rules pg. 11
- Stationary Diesel Engine Emissions, pg. 12
- DOT Hazmat Rule Changes, pg. 15, 16

PA UPDATES

- Air and Hazwaste Issues, pg.3
- More Watershed Specialists, pg. 3
- Farmers & Water Quality, pg. 4

NJ REGULATORY UPDATES

- Remediation Public Involvement, pg. 18
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SOIL VAPOR WORSE THAN THOUGHT

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MECHANICS' ASBESTOS EXPOSURE

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