

The RT Review

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

• Environmental Engineers & Scientists • Geologists • Remedial Contractors



PAUL LEDEBUR TO HEAD NEW BUILDING SERVICES GROUP



Gary Brown, President of RT Environmental Services, Inc. (RT), recently announced the appointment of Paul Ledebur to manage RT Environmental Services King of Prussia Building Services Group. RT Building Services

Group will focus on:

- Asbestos Containing Material Work
- Lead Based Paint Work
- Microbial Investigation and Remediation Work

Reporting to Paul initially will be Jeffrey Ferretti, and the Building Services Group will be supported by certified microbial consultants, lead based paint inspectors, and asbestos containing material inspectors throughout the firm.

Building services are RT's largest current new business area, with an average of 3-5 new projects each week, going underway. RT has already trained more than 400 property and building managers and engineers at it's mold awareness seminars, and mold related work has been especially heavy this summer, due to both wet weather conditions, and the aging building stock in our region.

In addition, many of our staff are cross-trained, and we are also seeing a significant increase in expert work related to mold claims. A number of our certified microbial consultants, and asbestos containing material and lead based material inspectors are also cross-trained to complete Phase 1 Environmental Site Assessment work, which helps minimize environmental due diligence costs when these issues are of concern at individual properties which are scheduled for an upcoming real estate transaction.

Paul will be active in both the Apartment Association of Greater Philadelphia and the Building Owners and Managers Association, as well as Tri-State Commercial and Industrial Realtors Association activities.

Should you have any projects where we may be of assistance related to mold, lead based paint, or asbestos containing materials, Paul can be reached at (610) 265-1510, ext 11, or by email pledebur@rtenv.com.

NEW JERSEY PROPOSES NEW SOIL REMEDIATION STANDARDS

On August 2, 2004, the New Jersey Department of Environmental Protection (NJDEP) posted on its web site proposed soil remediation standards, which are issued for public comment. The public comment period ends on September 17, 2004. The proposed standards lower the Impact to Groundwater standard for most every compound. The background standard for arsenic is being reduced from 20 milligrams per kilogram (mg/kg) to 8 mg/kg. The most significant changes are to the standards for pesticides and polyaromatic hydrocarbons (PAHs). The Impact to Groundwater standards for these compounds have been reduced two to three orders of magnitude, or 100 to 1,000 times less than the current standard.

Arsenic is known to exist in South Jersey soils at concentrations up to 40 mg/kg. These soils stretch in a belt from Gloucester County, through Mercer County, and into Monmouth County. The arsenic in these soils is naturally occurring and is not bioavailable. In addition, soils extending east into Gloucester County, Camden County, and Burlington County have been found to contain arsenic at levels between 8 mg/kg and 20 mg/kg. By lowering the background standard to 8 mg/kg, the number of sites which will need to be investigated due to the presence of background arsenic will increase significantly. This will place a strain on an already overworked NJDEP and will cause farmers and developers to incur significant costs for the investigation of background conditions which are widely recognized by consultants and NJDEP.

As part of the proposed regulation, the NJDEP proposed a Impact to Groundwater standard for arsenic of 0.006 mg/kg. This means that the NJDEP believes that arsenic at or below the background concentration will impact groundwater quality above the Environmental Protection Agency (EPA) drinking water quality standard of 8 micrograms per liter (µg/l). RT has completed numerous soil and groundwater investigations throughout Cherry Hill and Mount Laurel which involved arsenic. The detected arsenic levels in soils were as high as 38 mg/kg. Groundwater sampling using prepacked Geoprobe® well screens and low flow purge techniques have consistently revealed dissolved phase arsenic below the EPA drinking water quality standard of 8 µg/l. This data indicates that the method by which the NJDEP developed the Impact to Groundwater standard for arsenic

is not realistic and is likely flawed. If soils with arsenic concentrations greater than 1,000 times the proposed standards are not partitioning to the groundwater above EPA drinking water quality standards, the method obviously did not take into consideration soil types or ionic state of the compound, indicating that the proposed standard is to be set unrealistically low and is not based on sound science. (For more information on the arsenic standard, see the Editorial on page 4.)

In addition to arsenic, the NJDEP has lowered the Impact to Groundwater soils standards for many pesticide compounds. For example, the dieldrin remediation standard is proposed to be lowered from 50 mg/kg to 0.007 mg/kg, which is the practical quantitation limit (PQL). Lindane is proposed to be lowered from 50 mg/kg to 0.006 mg/kg, which is also the practical quantitation limit (PQL). Most of the other pesticide compounds have similar remediation standard reductions proposed by the NJDEP.

Pesticides were historically applied to orchards and farmed fields under the direction and/or approval of the United States Department of Agriculture (USDA) and state agencies. The pesticides were designed to remain in the top six to twelve inches of soil to control pests. RT has completed numerous investigations throughout Camden, Gloucester, and Burlington counties for historic pesticide use. When pesticides were detected, they were seldom if ever detected at depths greater than two feet below grade. Based on this data and the documented lack of vertical migration, it is obvious that the proposed Impact to Groundwater standard has not taken into consideration either the chemical properties of the pesticide compounds or the characteristics of typical soils in New Jersey.

Historically, accepted methods to remediate pesticide impacted soil have included soil mixing and/or capping. If the proposed regulations are implemented, the applicability of these remedial technologies will be severely limited. If the Impact to Groundwater standard for dieldrin is

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Directory

Corporate Headquarters

215 West Church Road
King of Prussia, PA 19406
Phone: (610) 265-1510
FAX: (610) 265-0687

E-mail: RTENV@AOL.COM
World Wide Web: HTTP://RTENV.COM

24 HOUR

URGENT LINE SERVICE 800-725-0593

Gary Brown, P.E., President
Phone: (610) 768-0232

E-mail: GBROWN@RTENV.COM

Paul Ledebur

Phone: (610) 265-1510 Ext. 11

Building Services Group Manager

E-mail: PLEDEBUR@RTENV.COM

Walter Hungarter

Phone: (610) 265-5599

Engineering Group Manager

E-mail: WHUNGARTER@RTENV.COM

Chris Orzechowski, P.G.

Phone: (610) 265-5572

Hydrogeology Group Manager

E-mail: CORZECOWSKI@RTENV.COM

Peter Malik

Phone: (610) 265-1510 Ext. 31

Remedial Group Manager

E-mail: PMALIK@RTENV.COM

New Jersey

Tom Brady

E-mail: TBRADY@RTENVNJ.COM

Vice President

Suite 306, Pureland Complex
510 Heron Drive, P.O. Box 521

Bridgeport, NJ 08014

Phone: (856) 467-2276

FAX: (856) 467-3476

Regional Partners

California

Bob Smyth

Phone: (856) 234-1730

FAX: (856) 234-4387

Massachusetts

Andy Irwin

Phone: (508) 653-8007

FAX: (508) 653-8194

Michigan

Michael Carlson

Phone: (248) 585-3800

FAX: (248) 585-8404

North Carolina

Phil Rahn

Phone: (336) 852-5003

Ohio

Ron Clark

Phone: (330) 375-1390 Ext. 207

Virginia

Edward Berg

Phone: (757) 599-6985

FAX: (757) 599-3501

RT STAFF AND PROJECT NEWS

At RT Review Press Time, finishing touches were being put on RT's expanded office space, at our Bridgeport, New Jersey Office. Expanded demand for our services in New Jersey is caused by two factors - more enforcement driven NJDEP environmental programs, and, more Brownfield opportunities as word spreads about New Jersey's deferred local tax treatment for remedial costs the incentives, along with a favorable economy is causing the New Jersey Brownfields market to explode. Our expanded New Jersey facilities will allow RT to continue to add staff, as this market continues to further develop.

Peter Malik and Jeff Ferretti are providing oversight for remediation of the American Metro (former American Standard) site, in Hamilton Township (Mercer County) New Jersey. Preferred Real Estate Investments is redeveloping the site for commercial use; the site is immediately adjacent to the Northeast Corridor Hamilton NJ Transit Station.

Walter Hungarter and Brian Havanki are working on the design and permitting of sites for beneficial use of materials at locations in Southeast Pennsylvania. Materials include concrete, mulch, and recycled asphalt, and recently, additional materials have included gypsum and wood at residential construction sites (see the related article).

Mike Bauer and Rafael Torres are working on a series of asbestos containing material survey and abatement oversight projects, from North Jersey to Maryland. Additional services at the Maryland location include comprehensive due diligence review of recent and historic industrial operations at a former countertop products manufacturing facility, by Keith Gerber and Gary Brown.

Chris Eyre is busy on a series of due diligence assignments for residential developers, who are eying New Jersey's newly designated "smart growth" areas, per Governor McGreevey's initiatives. In addition to environmental due diligence work, soils are being tested at former agricultural sites, and remediated, as appropriate, as part of the development process.

Gary Brown and Larry Bily are working on a large due diligence assignment involving a Massachusetts industrial site, with large scale current and historic manufacturing of electrical and electronic products, as well as historic nuclear operations. The site, which includes a large complex of industrial buildings, is being eyed for potential redevelopment by a Philadelphia area redeveloper client.

Work is also continuing on industrial Brownfields to residential redevelopment projects, in Royersford, Montgomery County, and Phoenixville, in Chester County, making use of Pennsylvania's Award Winning Land Recycling Program. In addition, Act 2 work involving treatment of impacted soils is scheduled to begin at another Southeast Pennsylvania site. All three of these projects are being managed by Peter Malik.

With so many developers and redevelopers seeking new projects, and buoyed by the strong economy, we foresee continued strong demand for Brownfields site redevelopment and smart growth development throughout our service area, through the upcoming and fall and beyond.

We appreciate the opportunity to be of service to our clients as these important projects go forward.

WALTER HUNGARTER PROMOTED TO ASSOCIATE



Gary Brown, President of RT Environmental Services announced that Walter Hungarter has been promoted to Associate. The Associate level at RT Environmental carries additional responsibility related to identifying and implementing programs to keep our existing client base informed of environmental regulatory changes and business opportunities, and to identify new clients to help keep the firm growing and prospering.

Walter manages RT's King of Prussia engineering group, which has grown significantly under his leadership. He has managed projects involving beneficial use permits for construction industry locations at more than 50 facilities in Pennsylvania, and he has also managed successfully multi site Phase 1 Environmental Assessment assignments involving portfolios of commercial and industrial

properties throughout the Eastern United States.

Congratulations to Walter on this well deserved promotion!

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NEW JERSEY PROPOSES NEW SOIL REMEDIATION STANDARDS *(Continued from page 1)*

lowered to 0.007 mg/kg, the highest concentrations of dieldrin which could realistically be mixed to achieve the proposed standard would be 0.042 mg/kg, assuming the soil could be mixed to achieve the proposed standard would be 0.042 mg/kg, assuming the soil could be mixed to a depth of thirty-six inches. That is equivalent to the current Unrestricted Use Soil Clean-up Criteria and barely above the proposed Residential Ingestion-Dermal standard of 0.040 mg/kg. This means that soil mixing would not work on any of the sites currently or historically remediated using this technology.

Another remedial solution was to place the pesticide impacted soil beneath berms around the exterior of the development and then to Deed Notice the berms. The berms were covered with one foot of clean soil and landscaped. The proposed Impact to Groundwater standard for dieldrin is 0.007 mg/kg. Historically, the NJDEP has not allowed soils with concentrations of compounds above the Impact to Groundwater standard to be placed under permeable caps (i.e. soil caps). If this practice continues, the cap for dieldrin impacted soils would need to be impermeable, either using clay or using a geosynthetic liner. The use of these materials would preclude the subsequent planting of trees and shrubs, on the berm as they would penetrate and damage the cap.

The NJDEP currently requires a biennial certification by a Professional Engineer (PE) for Deed Noticed properties. Part of the certification is to evaluate any regulation changes and determine if the existing capping system is still protective of human health and the environment. The evaluation includes an order of magnitude review. If the soil remediation standards change and the concentration to which a site was previously remediated is greater than ten times the new limit, the case can be reopened. Therefore, if dieldrin impacted soils, with concentrations of 0.170 mg/kg were placed beneath a permeable cap and the new Impact to Groundwater standard is 0.007 mg/kg, the concentrations are greater

than ten times the new standard and the PE may not be able to certify that the cap is still protective of human health and an impermeable cap may be required. Even though DEP may have recently signed off on the site, further remediation could be necessary.

The overall result of lowering the pesticide remedial standards is that commonly accepted remedial strategies will no longer work, historic remedies may no longer be protective of human health and the environment, and the value of agricultural land will be significantly reduced. Additionally, developer or homeowner associations which are currently maintaining permeable soil caps may incur significant costs to modify the existing caps.

The last group of compounds for which the Impact to Groundwater standards are being modified are PAHs. The Impact to Groundwater standard for Benzo(a)anthracene is proposed to be lowered from 500 mg/kg to 0.5 mg/kg. Benzo(a)pyrene is proposed to be lowered from 100 mg/kg to 0.5 mg/kg (which is equivalent to the PQL). According to Appendix D of N.J.A.C. 7:26E, (the "Technical Requirements for Site Remediation"), concentrations of Benzo(a)anthracene range from 0.03 mg/kg to 160 mg/kg in historic fill. Benzo(a)pyrene ranges from 0.02 mg/kg to 120 mg/kg in historic fill.

As previously discussed, the NJDEP has historically not allowed for the placement of soils with concentrations of compounds above the Impact to Groundwater standard to be placed under permeable caps. As part of the Brownfield redevelopment initiative, developers have been developing sites in such cities as Jersey City, Camden, Newark, and Bridgeton which contain historic fill. These projects have utilized soil caps to prevent direct contact with the fill material and a Deed Notice to manage the caps.

RT has completed numerous soil and groundwater investigations throughout New Jersey at sites with historic fill. The investigations have revealed concentrations of PAHs in soils within

the expected ranges documented in N.J.A.C. 7:26E. Groundwater investigations revealed that the PAHs detected in the historic fill did not partition to the groundwater. This is due to the characteristics and age of the fill. The proposed Impact to Groundwater standards ignore this information, and assume that soil test results are from new releases. Consequently, NJDEP proposes to set an unneeded low standards for Brownfields sites with historic fill.

As noted above, the Deed Notice requires a biennial certification by submitted by a PE to confirm that the existing cap is protective of human health and the environment. Based on the proposed remedial standard changes, a number of sites which utilized soil caps will fail the order of magnitude review. The NJDEP has not required groundwater investigations on sites where the concentrations of PAHs in the historic fill is below the Impact to Groundwater standard. If groundwater data does not exist the PE may not be able to certify that the existing cap is protective of human health and the environment as concentrations above the proposed Impact to Groundwater standard would be present and a pathway to groundwater would exist through the permeable cap.

The proposed remedial standards for PAHs will cause the costs for development of Brownfield sites to increase and could cause the need to existing caps at Brownfield sites to be modified at significant cost to the developers and/or owners.

The proposed soil remediation standards do not appear to have been developed based on real world data and appear to be unrealistically low. The potential impact to developers and owners of Brownfield sites and farmland is significant. RT will be submitting comments to the NJDEP indicating that setting unrealistically low soil remediation standards will thwart New Jersey's Brownfields redevelopment initiatives. Should you have any questions regarding the proposed changes, please feel free to contact Tom Brady in our New Jersey Office at (856) 467-2276.

FEDERAL REGISTER UPDATES

- **April 26** Surface Coatings - Autos and Light Trucks - Final Rule
- **April 28** Pesticide Exemptions - Active / Invert Ingredients
- **April 30** Final Rule - 8 Hour Ozone NAAQS
- **May 4** H & S Data Reporting - Additional Chemicals
- **May 5** Regional Haze Regs / BAT Guidelines
- **June 17** Allowance System / Stratospheric Ozone Protection
- **June 29** Non Road Diesel Engine Emissions
- **July 1** PSD - Final Rule - NSR - Routine Maintenance / Repair Engine Replacement Exclusion
- **July 7** Sulfuric Acid Exemption
- **July 9** Coastal and Great Lakes Water Quality Standards
- **July 9** NPDES Final Regs, Cooling Water Structures, Ph. 2
- **August 9** Coke Oven Battery Emissions Stds.
- **August 13** New Locomotive Emissions

Editorial**NEW JERSEY DEP - WILL IT MAKE THE ARSENIC SOIL STANDARD TOO LOW?**

The New Jersey Department of Environmental Protection, by proposing to lower the arsenic standard from 20mg per kg to 8mg per kg is losing credibility among environmental managers and consultants. Quite extensively, surface arsenic concentrations exceed 8mg per kg, and by taking this action, the effect is to force expensive studies and for cleanup of potentially thousands of sites where arsenic impact is very minimal. In many instances, the arsenic is at naturally occurring levels, or is simply the result of urbanization.

In Pennsylvania, Gary Brown, RT's President, made presentations to the cleanup standards Science Advisory Board, on the difficulties with Pennsylvania Department of Environmental Protection's 12mg per kg residential direct contact state wide health standard. In the subsequent Pennsylvania DEP Clean Fill Policy, flexibility has been allowed such that arsenic concentrations of up to 20 mg per kg can be acceptable, if direct contact is addressed under construction industry Best Management Practices.

Prior to World War II, there was extensive coal burning in urban areas throughout the United States. This coal burning causes surface soil to frequently exceed 8mg per kg. Many sites could now have to be restudied to check for ubiquitous arsenic surface concentration; we think the type of unrealistic standard proposed by the New Jersey Department of Environmental Protection works against statewide Brownfields initiatives. When standards are set below common background levels, (including background levels from historical urban development), it is the New Jersey Department of Environmental Protection which loses credibility with the public because there are not now nor will there ever likely be grant or loan programs large enough to cleanup

low levels of contamination caused by general historical urbanization. In a published article, D.A. Belluck,* predicted an emerging "public health" crisis, in part, because regulatory agencies such as the New Jersey Department of Environmental Protection cannot effectively deal with this issue the public becomes concern when agencies such as DEP promulgate cleanup criteria portraying much of the state as "contaminated".

Proposals such as the current proposal to lower the arsenic standard to 8mg to kg are likely to also cause DEP a major loss of credibility, among developers and redevelopers who chose to comply with the state's environmental programs. It is clear that setting a standard so low that ubiquitous surface arsenic contamination from historical coal burning throughout the state's urban areas is regulated but is rarely cleaned up does not really offer any significant risk reduction, and only serves to make redevelopment efforts harder. DEP proposes to have these types of sites use a "site specific" standard, which requires costly and time consuming investigation work at sites which may not even have any actual "releases" which DEP regulates. It is not clear that DEP has the authority to regulate historical anthropogenic / urbanization impacts, but, by setting a low standard, it seeks to do so.

If fact, New Jersey's original standard of 20mg per kg, was based on a realistic review of background data, including background urban values, according to the New Jersey Department of Environmental Protection response to the Academy of the Environmental Health of Soils in their last publication on state soil cleanup goals. By switching to 8mg, DEP has now decided that cleanup of all or most of our urban areas might be necessary, with the burden falling on current

property owners, who in most instances, who did not either cause nor contribute to the contamination. This is a very large economic decision which we do not think should be DEP's alone to make.

RT recommends that the New Jersey legislature should make the final decision on any issue of this magnitude, because policy issues of this type do not relate to individual spills on properties, and administrative agencies should not make decisions beyond law and regulation. Historically, DEP has only been given authority to regulate spills and releases of regulated substances which have occurred at any site. Historical coal burning and natural background arsenic do not fit this category at all.

Lets all hope that New Jersey's environmental Brownfields project progress is not interrupted or slowed by propagation of unrealistic remediation standards, which could have the effect of requiring pre World War II ubiquitous atmospheric deposition to be studied and /or cleaned up. We obviously have many real and more pressing environmental issues to deal with at tens of thousands of sites with actual releases.

We think the arsenic standard of 20mg/kg should be left alone unless the legislative approves a reduction, after NJ DEP presents a cost effectiveness analysis of the full impact of their proposal.

For a copy of Gary Brown's presentation on Arsenic Standards to the Pennsylvania DEP Cleanup Standards Science Advisory Board, or, comments on D.A. Belluck's article call 800-725-0593, ext 34.

**International Journal of Toxicology 22:109-128, 2003.*

GARY BROWN NAMED PENNSYLVANIA UTILITY CONTRACTORS ASSOCIATION ASSOCIATE MEMBER OF THE YEAR

Brenda Reigle, Executive Director of the Pennsylvania Utility Contractors Association (PUCA) announced that Gary Brown, President of RT Environmental Services (RT), is PUCA's Associate of the Year. The Association, of which RT is a member, had a number of it's contractor members concerned about how the Pennsylvania Clean Fill program would impact their business.

Because the Clean Fill program clearly could impact the business of each and every utility contractor, RT worked with PUCA to implement a two pronged program, to make sure PUCA members would know how to continue their work under the Clean Fill program.

Initially, presentations were made at PUCA Regional meetings throughout Pennsylvania. When the Clean Fill program became final, seminars were held individually, first for PUCA contractors, and then for consulting engineers, to make sure

they were aware of the New Clean Fill program regulatory requirements. All key PUCA contractors attended an all day seminar in Harrisburg in which a tailored Clean Fill program presentation was delivered by Gary Brown, as well as Walter Hungarter of RT. Also participating in this presentation was William Auxer, Esq. of the Kaplin Stewart Law Firm.

PUCA members, who conduct excavation work throughout the Commonwealth, installing all types of utilities, from gas lines and water mains, to communications lines, including fiber optic lines. Special attention during the seminars focused on managing materials excavated in urban areas.

RT Environmental Services, Inc. appreciates that PUCA has named Gary Brown to be PUCA Associate of the Year. We pledge to keep all of our clients informed, as we have since the inception of the firm in 1988, on how changing and updated environmental regulations may impact their business.

PA UPDATES

DEP PROPOSES NEW PUBLIC PARTICIPATION POLICY

DEP is proposing a new policy on public participation in the permit application review process. Public participation is an important part of making informed environmental decisions, and this policy extends the Department's public participation guidelines to the permit application review process. It establishes consistent guidelines for how DEP encourages public participation in the review of a permit application, how it reviews and responds to comments received during the public participation process, and clarifies the Department's role in public meetings. It also highlights the responsibility of the Department's Center for Collaboration and Environmental Dispute Resolution for applications that may generate significant public interest.

The proposed policy was published in the Pennsylvania Bulletin on July 10. Comments were to be received through Aug. 25.

To view the policy, visit the Department's website at www.dep.state.pa.us, DEP Keyword: "Public Participation."

(PADEP Update - 7/2/04)

DEP CHALLENGES SUDDEN CHANGE OF COURSE THAT HURTS PA ECONOMY

DEP Secretary Kathleen A. McGinty said the EPA's proposed designation of 22 Pennsylvania counties as nonattainment for fine particulate matter relies on an arbitrarily weighted emissions scoring process rather than sound technical merits for determining air quality.

"This sleight of hand could put Pennsylvania at a disadvantage in terms of public health and economic competitiveness," Secretary McGinty said.

In February, Pennsylvania recommended 16 counties for nonattainment based on air quality monitoring data and other available information, including particulate-forming emissions, meteorology and demographics. Those counties included Philadelphia, Delaware, Chester, Bucks, Montgomery, Berks, Lancaster, York, Dauphin, Cumberland, Lebanon, Cambria, Westmoreland, Washington, Allegheny and Beaver. Three counties – Bucks, Montgomery and Lebanon – subsequently were removed from that list based on EPA guidance and agency data concerning the designation process.

EPA's designations include those original 16 counties plus Mercer, Lawrence, Butler, Armstrong, Indiana and Greene.

Pennsylvania recommended to EPA that boundaries for the designated areas generally follow county boundaries and metropolitan statistical areas, which are socially and economically integrated. This approach is similar to the methodology used for designating areas under the eight-hour ozone health-based standard, which was announced in April.

However, EPA's proposed designations are based on a recently developed weighting emissions scoring process. That process, which EPA never published for review and comment, expands nonattainment areas to include counties monitoring attainment solely because of their location to certain major emission sources, including coal-fired power plants.

Among the EPA nonattainment designations, four counties – Armstrong, Bucks, Montgomery and Mercer – currently are monitoring attainment for the annual particulate matter standards. Additionally, there is no ambient monitoring data for Lawrence, Butler, Greene, Indiana and Lebanon counties.

(PADEP Update - 7/2/04)

RENDELL ADMINISTRATION STREAMLINES PERMITTING TO SPEED INFRASTRUCTURE IMPROVEMENTS

On behalf of Governor Edward G. Rendell, Environmental Protection Secretary Kathleen A. McGinty and Transportation Secretary Allen Biehler have announced the implementation of a cooperative effort to speed up infrastructure improvements in aging communities by streamlining the permit process for the maintenance, repair or replacement of bridges, highways, utility lines and other items in or near state waterways.

Recognizing the need to share ideas and resources, the two departments worked together to create a new general permit that will reduce the number of individual stream work permits by 22 percent and cut the processing time from several months to a few weeks for most projects. This new streamlined permit, which was published in the Pennsylvania Bulletin in late June will help communities improve key infrastructure more quickly, a particularly important task when trying to attract new businesses to a community.

Public comments following the release of the draft general permit last fall resulted in a few key changes. The permit will require that a Pennsylvania Natural Diversity Inventory search of the site be current before work begins to ensure species of special interest and their habitat are protected. The permit also highlights the time to year restrictions needed to protect both wild and stocked trout, and clarifies that this approach may be used on land owned by railroads

(PADEP Update - 6/25/04)

TWO DEP FINAL RULEMAKINGS APPROVED IN JUNE

The Independent Regulatory Review Commission (IRRC) June 10 approved two DEP final rulemaking packages.

The first package updates and clarifies several requirements concerning disinfectants, disinfection byproducts and surface water treatment. It was developed in response to recent federal corrective amendments to two 1998 federal rules – the Interim Enhanced Surface Water Treatment Rule (IESWTR) and the Disinfections/Disinfection Byproducts Rule (D/DBP). The federal corrective amendments resulted in several Chapter 109 provisions being unnecessarily more stringent than federal requirements. The rulemaking also adds three requirements needed for Pennsylvania to obtain primacy for the Safe Drinking Water Program. These requirements relate to disinfection byproduct monitoring, increased monitoring criteria and surface water turbidity reporting. Lastly, several existing provisions were clarified.

One provision more stringent than the federal requirements is monthly reporting of chlorite monitoring. The federal rule requires chlorite reporting on a quarterly basis. Entry point chlorite samples are taken daily, and compliance with the chlorite MCL is based upon monthly distribution sampling. DEP believes that monthly reporting is appropriate given the acute health concerns associated with the parent chlorine dioxide disinfectant. The amendments will affect approximately 2,565 water systems in Pennsylvania.

The second package was a comprehensive amendment to all but two of the radiological health chapters that comprise 24 Pa. Code, Article V. The amendments address recent changes to Nuclear Regulatory Commission (NRC) regulations that are incorporated by reference; correct cross references, improve clarity and provide flexibility for compliance, where possible; address fee inequities by charging radiation-producing machine service providers a \$100 annual

PA UPDATES

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fee to material licenses. In addition, "healing arts screening" is updated to ensure adequate patient safeguards in light of the recent widespread CT screening practices.

Upon approval by the Attorney General for form and legality, the regulations will be published in the Pennsylvania Bulletin and will become effective on the date of publication.

(PADEP Update - 6/25/04)

REPORT UNCOVERS 40,000 TONS, \$4 MILLION IN MISSED RECYCLING OPPORTUNITIES

In a report to the Greater Philadelphia Commercial Recycling Council (GPCRC) Board of Directors, Executive Director David Biddle on May 13 outlined plans for targeting the healthcare higher education and cultural sectors as part of the council's beefed-up recycling education and assistance program.

Biddle presented to the board a formal report, titled "Two Year Evaluation and Directions for 2004-05." According to the report, future plans call for GPCRC to perform research and needs assessments for targeted sectors, then hold "Recycling Summits: to encourage businesses to set specific recycling goals over the next 5-10 years. The council will help representatives meet recycling goals and oversee sector-wide program tracking and data management.

"We're hoping to see goals of at least 25 percent recycling by 2005 and 50 percent by 2007," Biddle said. "We'll start with the healthcare industry in the fall, move on to institutions of higher learning, then to museums, performing arts venues and other cultural institutions."

GPCRC has executed comprehensive waste audits and recycling program designs for more than 30 major businesses and institutions in the region; brokered partnerships with 12 regional organizations and agencies; and developed an online clearinghouse for recycling and property managers (www.gpcrc.com). The council has identified recycling opportunities in excess of 40,000 tons, representing avoided cost savings of an estimated \$4 million a year.

For more information about GPCRC, go to www.gpcrc.com.

(PADEP Update - 6/25/04)

DEP ANNOUNCES NEW GENERAL PERMIT FOR BENEFICIAL USE OF FOUNDRY SAND

DEP has announced notice of a general permit that expands the beneficial use options for foundry sand and sand system dust generated by ferrous metal foundries and steel foundries.

The new general permit provides for additional uses of materials as construction material, or as soil additive or soil amendment. The materials must be used consistent with applicable standard engineering or other professional or industry practices and procedures.

This general permit is now available in addition to general permit WMGR0019, which limits uses to roadway construction or sand used in the manufacture of cement or asphalt. The new general permit will allow the use of foundry sand under buildings, parking lots, athletic fields and also allow foundry sand meeting the requirements of the permit to be blended with other materials to make potting soil or topsoil.

PA UPDATES (Continued)

A link to the permit can be found at <http://dep.state.pa.us> subject Residual Waste, General Permits.

(PADEP Update - 5/28/04)

DEP SUBMITS WATER QUALITY REPORT TO EPA

The 2004 Pennsylvania Integrated Monitoring and Assessment Report has been completed by the DEP's Bureau of Water Supply and Wastewater Management. This document, which represents a consolidation of reporting requirements found in Sections 303(d) and 305(b) of the federal Clean Water Act, includes:

1) a narrative description of Pennsylvania's Water Quality Management Program and a statewide summary of the status of all waters,

2) a five-part, segment-specific list of the use attainment status of water bodies throughout the state,

3) the Assessment and Listing Methodology use to interpret monitoring results and develop the five-part list, and

4) responses to comments received during a 60-day public comment period provided for the draft list.

This report represents the first time that Pennsylvania has used the EPA-recommended consolidated reporting format and the effort resulted in a very lengthy document, approximately 2,200 pages. The entire text can be found at:

<http://www.dep.state.pa.us/dep/deputate/watermgt/WQStandards/wqstandards.htm>.

Key findings are:

Surface Water Quality Assessment Summary

Streams (miles)	Aquatic Life Use	Human Health Use	Recreational Use
Assessed	67,979	1,944	140
Supporting	57,217	571	13
Impaired	10,762	1,373	127
Lakes (acres)			
Assessed	75,543	28,665	64,588
Supporting	30,346	165	63,351
Impaired	45,197	28,500	1,237

A statewide summary of use support status for three water uses in assessed lakes and streams is presented in the following Table.

Monitoring information indicates that 84 percent of the assessed stream miles support the designated fish and aquatic life use. Impairment is reported in 16 percent of the assessed miles. The three largest sources of reported impairment are abandoned mine drainage, agriculture and urban runoff/storm sewers. The major causes of aquatic life use impairment in streams on a statewide basis are siltation, metals, nutrients and pH.

A total of 40 percent of the assessed lake acres support designated fish and aquatic life uses, while 60 percent have been assessed as impaired. The major sources of impairment in lakes are agriculture and "Other" sources. The "Other" source code is, in many cases, associated with low dissolved oxygen levels in the hypolimnion of naturally stratified lakes and is not caused by a pollutant.

For lakes, the human health assessment is for the fish consumption use. A total of 28,665 lake acres have been assessed for support of the fish consumption use (excluding Lake Erie and Presque Isle Bay). The major reason for the large proportion of impaired acres is the implementation of a risk-based mercury fish consumption advisory methodology in 2001. Nearly all of the lake advisories are due to mercury. In addition, fish consumption advisories are in place

for a number of species in Pennsylvania portion of Lake Erie and in Presque Isle Bay. These advisories are due to PCB and mercury. Just over 481,900 acres are affected to those advisories.

Only a limited number of stream miles have been assessed for water contact use support. Important recreational areas and aquatic life use-impaired streams with potential sources of bacteria are targeted for bacteriological sampling. These potential sources include municipal point sources, combined sewer overflows and agricultural sources.

A total of 64,588 lake acres have been assessed for support of the water contact recreation use. Ninety-eight percent of the assessed acres support the water contact use. Pathogens and nutrients from agricultural and on-site wastewater are responsible for the reported impairments.

(PADEP Update - 5/7/04)

PADEP ISSUES NEW COMPLIANCE AND ENFORCEMENT DIRECTIVE

On April 4, PADEP issued a compliance and enforcement directive establishing department-wide standards and guidelines for identifying violations, notifying those responsible, tracking and resolving the violations, and enforcing penalties for non-compliance. According to PADEP, the directive is a stepped-up enforcement and compliance initiative designed to ensure that violations are corrected in a timely manner and that fines for violations are collected from the violators. Pursuant to the directive, all violations should be documented in writing 14 days after the receipt of any additional information necessary to determine the existence of a violation. In addition, the directive sets standards (including time limitations) applicable to, among other things, the issuance of resolution of Notices of Violation ("NOVs"), assessment and collection of fines and penalties, and enforcement actions. The directive also offers compliance incentives to regulated entities by allowing for reduced agency inspections at facilities that have implemented a comprehensive, third-party-audited environmental management system, and for NOV issuance waivers for parties with a strong compliance track record over the prior three years.

(MGKF Client Alert - 6/04)

PENNSYLVANIA LEADS NATION IN TRASH IMPORTS

The amount of waste in Pennsylvania imports fell by more than 1 million tons in 2003, the state's Department of Environmental Protection (DEP) states. But despite this figure, the state still leads the nation as the No. 1 waste importer. Total trash imports dropped to 10.6 million tons, a 10 percent decrease from 2002. At its peak in 2001, Pennsylvania imported 12.6 million tons. The DEP reports that approximately 25.4 million tons of refuse were disposed of in 59 state landfills or burned in 5 incinerators.

(Waste Age Wire - 4/12/04)

DEP EMPLOYEES ARE USING LESS WATER AND ELECTRICITY IN THEIR NEW NORRISTOWN BUILDING

Moving 100 vehicles, 300 people, 4,000 boxes of files, and untold pieces of equipment is no easy task. Throw in cold, rainy weather and a tight timeframe in which to accomplish it all, and you have a recipe for disaster.

Not so for Pennsylvania Department of Environmental Protection's Southeast Regional Office (PA DEP), where the Herculean task of

moving from Conshohocken to the new "green" headquarters in Norristown went off without a hitch (well, hardly a hitch), thanks to meticulous advance planning and some old-fashioned teamwork by employees over the weekend. By the time everyone reported for work Monday, February 9, in the new building, telephones were hooked up, computers were humming, and email was flying. Even allowing for the requisite unpacking of boxes, actual work was being conducted Monday morning.

"All in all, things went smoothly," said Regional Director Joe Feola. "That's a tribute to a lot of hard work by a lot of people in the office." (RT thinks its because of Joe's well known leadership ability!)

The Southeast Region's new headquarters is the latest in a growing list of "green" buildings in the Commonwealth. Pennsylvania lead the nation with nine buildings certified by the U.S. Green Building Council under the internationally recognized Leadership in Energy and Environmental Design (LEED) program.

The most obvious "green" aspect of the building is a 4,000-gallon wooden cistern that is connected to the roof gutters to collect rainwater. The filtered rainwater will be used to flush toilets in the building. In the event of a prolonged drought, the cistern can be filled from the public water system. By the same token, during an unusually heavy rainfall, water can be diverted to the regular storm drain system.

Combined with waterless urinals and other low-flow plumbing fixtures, the building is expected to use 58 percent less potable water (750,000 gallons a year, down to 313,000 gallons), compared to a similarly sized non-green building.

Energy costs are expected to be cut by approximately 35 percent (\$1.12 per square foot down to \$0.72 per square foot) compared to a conventional building, thanks to the use of "Green-E" produced electricity, lighting power density that averages less than 0.75 watts per square foot; a daylighting design of the 4-story atrium with photocell-sensored dimming; and high performance split task ambient T-5 indirect lighting and occupant sensors.

(Estuary News - Spring 2004)

PENNSYLVANIA, EPA SIGN VOLUNTARY CLEANUP AGREEMENT

Pennsylvania and the Environmental Protection Agency signed an agreement to allow owners or developers of contaminated sites to settle their liabilities under three environmental cleanup laws by following the state's voluntary cleanup program.

The agreement makes Pennsylvania the first with a state to allow landowners and developers to address their liabilities under the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act, or superfund; and the Toxic Substances Control Act, which regulates the cleanup of polychlorinated biphenyls, according to EPA and Pennsylvania DEP officials. PCBs are found in soil at a significant number of contaminated sites across the country.

"This agreement will encourage more business-people and economic development agencies to clean up and redevelop old industrial sites, knowing that when they've met Pennsylvania's standards for making these sites safe for workers again, they need not worry about any potential liability under federal environmental law either," department Secretary Kathleen A. McGinty said in a statement.

Following the voluntary program and meeting all standards and requirements would release a responsible party from all liability under CERCLA, RCRA and TSCA.

NJ UPDATES

NEW JERSEY RULING MAY BOOST STATES' USE OF OUTSIDE LAWYERS IN NRD SUITS

A recent ruling by a state judge upholding New Jersey's controversial use of outside lawyers to pursue natural resource damages (NRD) claims on a contingency basis is likely to provide a boost for other states considering similar efforts, according to state and industry officials following the lawsuit.

The ruling in the closely watched case comes as several other states and tribes around the country are reportedly negotiating with the same law firm at the center of the New Jersey campaign - Allan Kanner & Associates to pursue NRD claims on contingency.

At issue is New Jersey's unprecedented campaign to pursue thousands of NRD claims under state law by using outside counsel paid for by damages collected through the effort. State, tribal and federal trustees are allowed to pursue NRD claims under state and federal laws for injuries to natural resources that occur from hazardous releases.

The claims are in addition to the costs of cleaning up contamination.

The effort - spearheaded by the state's environment chief Bradley Campbell - is designed to comply with a New Jersey law that limits the amount of time the state has to bring the claims.

New Jersey industry groups filed a blanket challenge against the effort in February, charging that the use of outside counsel violated state law and created an economic incentive to litigate the claims.

But New Jersey Superior Court Judge Jack Sabatino rejected the industry claims in a June 18 order, saying the state can use outside lawyers as long as all papers submitted by the counsel are co-signed by officials from the state's attorney general's office.

However, in a win for industry, the order also requires any services performed by the outside counsel in claims where recovered damages exceed \$2 million to be approved by the court. That could "scale back" the fees that Kanner's firm can receive, says one industry observer.

Sabatino also transferred industry's other argument in its lawsuit - that the campaign should have been subject to public notice and comment procedures - to the state's appellate division.

While the industry lawsuit challenges New Jersey's campaign under state law, the case is being closely followed by industry and state officials nationwide because New Jersey is the first state to pursue NRD claims with outside counsel on such a large scale.

(Superfund Report - 6/5/04)

INDUSTRY TO CITE NEW MEXICO CASE IN DEFENSE OF NEW JERSEY NRD CLAIMS

Industry attorneys plan to cite the recent dismissal of a closely watched natural resource damage (NRD) suit over groundwater contamination in New Mexico as part of their defense against a slew of similar lawsuits filed by the state of New Jersey.

The attorneys say both states' broad legal theories and statutes are similar.

However, the state of New Mexico is planning to appeal the dismissal of its NRD claims over the South Valley Superfund site in Albuquerque, saying the federal judge fundamentally misinterpreted state law.

New Mexico has struggled to recover more than \$1 billion in NRD claims under state law at the site, a former General Electric (GE) manufacturing facility, after U.S. District Court Judge Bruce Jenkins last month rejected most of the state's arguments that contamination from the site had rendered an underground aquifer unfit for use as drinking water. In doing so, the judge found that the groundwater was not permanently damaged.

In May, Jenkins dismissed the state's claims, saying the court has resolved all of the legal issues and the remaining matters could be addressed administratively, according to an outside attorney working for the state. No court documents were available at press time, but the attorney says the defendants are expected to soon file legal documents that will effectively dismiss the case. GE did not return a call for comment.

Industry attorneys in New Jersey say Jenkins' ruling will be cited as a defense against NRD suits filed in state court by the New Jersey Attorney General's office. "It will be used by every defense," says one industry attorney, who calls last month's ruling in the South Valley case "a very good analysis of what a state can and can't claim and the standard of proof that will have to be met."

While both New Jersey and New Mexico are seeking to recover the claims under state laws, the source says the statutes are very similar, and that the legal theories are almost identical. Both states are asserting "very broad claims" on the lost use of groundwater, the source says.

The source also expressed surprise that the state would file its suits "in the immediate aftermath of the New Mexico case."

New Jersey May 20 filed 10 long-expected NRD complaints in state court as part of the state's unprecedented campaign to aggressively pursue thousands of NRD claims before a 2005 statute of limitations enacted by the state legislature. More suits are being prepared, a state official says.

The suits include claims against a number of large companies, including GE, ChevronTexaco, AT&T, General Dynamics, IBM and Viacom. "We will make the polluters pay for those losses and also for restoring the natural resources," Attorney General Peter Harvey said in the announcement.

The complaints are not expected to have any impact on an existing industry challenge against the state's policy that is currently pending in state court, industry officials say. That suit charges that elements of the state's NRD campaign should have been subject to public notice and comment procedures, and also alleges that the state's retention of outside counsel to pursue the claims on a contingency basis violates state law.

The state asserts that public notice and comment procedures do not apply to the campaign because it is an enforcement program, and argues that the state is allowed to use outside counsel to pursue the claims. A ruling on the suit is expected in June.

Meanwhile, New Mexico officials are predicting they will prevail in their appeal to the U.S. Court of Appeals for the Tenth Circuit.

New Mexico Attorney General Patricia Madrid criticized the dismissal of the case in a May 17 statement. "From the beginning, we have maintained that this judge has fundamentally misunderstood New Mexico's water law regarding the use and value of the state's water," the statement says.

The dismissal clears the way for the state to appeal its case to the Tenth Circuit, where state attorneys are confident they will prevail. "There's definitely reversible error on a number of counts," an attorney for the state says.

(Superfund Report - 5/24/04)

RUTGERS STUDY SUGGESTS SPRAWL MAY BE LESSENING

For half a century after World War II, the quest for a house, a yard and a station wagon, minivan or SUV drove families ever farther from urban areas into rapidly expanding suburbs.

Eventually, malls and office parks followed, letting people live, shop and work completely outside the

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cities that, since the industrial revolution, had been the traditional centers of population, employment and life in general.

But a new study by Rutgers University suggests that the region's suburbanizing trend might have leveled off or even declined in recent years, with people and jobs moving back toward New York and the rest of the region's urban core. High housing prices and traffic in the surrounding ring of suburbs, and an influx of immigrants to cities, are cited as factors in the "The Beginning of the End of Sprawl?"

"The 50-year trend in relentless suburbanization and urban decline changed dramatically," said James W. Hughes, dean of Rutgers' Edward J. Bloustein School of Planning and Public Policy, who co-wrote the study with professor Joseph J. Seneca. "The suburban ring lost while the core of the Metropolitan region, which includes Essex, Hudson and Union Counties in New Jersey, began to be reborn."

Among other urbanizing factors, the study found that the aging of Baby Boomers has produced a large flock of empty nesters - parents whose children have moved away from home - who have traded their detached suburban homes for condominiums or townhouses in urban areas. Those areas also tend to offer more cultural opportunities than suburbs, Blockbuster and the multiplex notwithstanding.

"They're coming back," said Pat Connors, a broker at Century 21 Kenny in Jersey City. "They commute to Manhattan, using the PATH, the ferry. I see them coming back and not wanting to sit on the highways."

The 20-something children of the Baby Boom tend to seek inexpensive rental housing, mainly available in cities, as do immigrants who have been arriving in large numbers in recent years, the study found.

While the suburbs initially promised privacy, convenience and other benefits of automobile travel, facilitated by an expanding highway system, "suburban traffic congestion reached epidemic proportions," Hughes said.

(Associated Press, Gloucester County Times - 5/19/04)

APPELLATE DIVISION INVALIDATES NJDEP REGULATION

In *New Jersey Association of Realtors v. NJDEP*, No. A-0502-03T3 (App. Div. Feb. 25, 2004), the Appellate Division invalidated a recently amended provision of NJDEP's Technical Requirements for Site Remediation ("Tech Regs"), which requires that person establishing a Deed Notice send copies to the recorded deed notice to certain entities. N.J.A.C. 7:26E-8.2(g)(5). NJDEP amended the regulation to require that notice be provided to the "New Jersey Realtors Association." NJDEP, conceding that the regulation was intended to apply to the New Jersey Association of Realtors ("NJAR"), expanded the persons to whom deed notices are to be sent so that a broader range of people would have knowledge that contamination exists at these properties.

NJAR challenged the regulation stating that it travenes the New Residential Construction Off-Site Disclosure Act (the "Act"), which requires a seller (including a broker) to provide a purchaser with notice of the availability of lists maintained by municipal clerks of off-site conditions that may affect the property value. The Appellate Division agreed that the regulation conflicted with the Act. The regulation impermissibly imposed a duty on realtors to

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compile a register of properties with deed notices to supplement the lists maintained by the municipal clerk. Under the Act, however, a real estate broker is only obligated to inform a purchaser of the existence of the municipal lists, not to create, maintain or supplement those lists.

(Riker Danzig Environmental Update - 5/04)

TAX CREDIT FOR SITE REMEDIATION

A new credit in the State's Corporation Business Tax that would reimburse business for up to 100% of Brownfield cleanup costs was established with Governor McGreevey's signing of A2628 in January (P.L. 2003, c. 296). The provisions of the act went into effect upon enactment and remain in effect through December 31, 2006. Only persons who are not "responsible parties" under the Spill Act are eligible for the credit.

(Riker Danzig Environmental Update - 5/04)

BROWNFIELD ACT AMENDED

Governor McGreevey amended the Brownfield Act by signing Assembly bill A-2585 into law in January (P.L. 2003, c. 224). As reported in the May 2003 issue of the Riker Danzig ENVIRONMENTAL UPDATE, the new law revises the development agreement program by authorizing sales tax generated from the purchase of materials used for remediation or redevelopment at a brownfields site to be included in the tax revenues used as a basis for reimbursement of cleanup costs. The act also allows that if redevelopment is being performed in phases, reimbursement of cleanup costs. The act also allows that if redevelopment is being performed in phases, reimbursement may commence at the completion of each phase in the same percentage as the occupancy rate of that particular phase.

Another provision of the act reduces from 90 to 45 days the time in which NJDEP must respond to a request to decrease a remediation funding source.

The bill, as introduced, would have increased to reimbursement rate of remedial costs from 75% to 100%, but the final amended version deleted this provision. Also deleted was a measure that would have authorized reimbursement of NJDEP oversight costs.

The new law also requires NJDEP to complete its investigation and mapping of the State's areas of historic fill within nine months of the law's effective date. In addition, the law mandates that data concerning the contamination of an aquifer to be submitted in digital form by the person performing a remediation and that the agency make it publicly available in the GIS (Geographical Information System) within 90 days of receipt of the information.

(Riker Danzig Environmental Update - 5/04)

NJ DEP TO STEP UP ENFORCEMENT OF IDLING VEHICLES

NJ Department of Environmental Protection regulations at N.J.A.C. 7:27-14 prohibit diesel-powered vehicles from idling for more than three consecutive minutes if the vehicle is not in motion. As part of a statewide effort by the DEP to implement measures to reduce diesel emissions in New Jersey, the DEP will be targeting various types of diesel-powered vehicles that operate on the roadways of the state. These include charter buses, public transportation buses, long-haul trucks and short-haul delivery trucks to ensure their owners and operators are complying with the idling regulations.

DEP inspectors will target bus staging areas, convenience stores, public entertainment venues, retail centers, truck yards, warehouse distribution centers and loading/unloading areas to ensure that diesel-powered vehicles are complying with all applicable regulations. They also will respond to resident com-

plaints with the help of the local environmental health agencies throughout the state. Failure to comply with the idling standards will result in enforcement actions and civil administrative penalty assessments for the property owner and the vehicle operator, starting at \$200 per day.

(Env. Tip of the Week - 7/11/04)

NEW JERSEY PRESERVES HIGHLANDS WATER RESOURCES

New Jersey in April announced purchase of development rights on one property in the Highlands region and purchased another property outright for the protection of open space and water resources in the Highlands region. The Department of Environmental Protection (DEP) Green Acres Program purchased a conservation easement on Buttonwood Game Preserve in Harmony Township and acquired the Danville Ridge property in Liberty Township from private owners at a combined cost of \$1.57 million.

Threatened by overdevelopment, this northwestern section of the state supplies drinking water for 292 municipalities and 16 counties in New Jersey. The region produces one-third of the state's potable water and supplies drinking water to about 64 percent of New Jersey residents.

The New Jersey Highlands is a 1,250 square mile area in the northwest part of the state known for its hills, forests and lakes. It stretches from Phillipsburg in the southwest to Ringwood in the northeast, and lies within portions of seven counties - Hunterdon, Somerset, Sussex, Warren, Morris, Passaic and Bergen - and 87 municipalities.

The larger Highlands regions runs from Connecticut through New York and New Jersey into Pennsylvania.

(Environment News Service - 4/28/04)

NEW GROWTH CONTROL REGULATIONS EXPECTED FROM NJDEP

NJDEP has developed, in draft form, significant new statewide growth control initiatives to implement, via regulation, the BIG Map initiative abandoned under much public criticism last year. Included will be new regulations describing the agency's "growth-sensitive framework for water and natural resource protection," which will create varying levels of regulatory control depending on whether a geographic area qualifies as a growth area, transition area, or low-impact area. Other regulations will modify the water quality management planning rules and the rules for treatment works approvals and sewer bans to incorporate the growth-sensitive framework. This will result in restrictions of sewer and water service extensions to "low impact" areas (and to a lesser degree, transition areas), and will facilitate development in growth areas. A third set of rules will be directed at reducing development in endangered and threatened species habitats. NJDEP is expected to publish the proposed regulations soon.

(MGKF Client Alert - 6/04)

A FAST TRACK FOR SMART GROWTH

On July 9, the Governor approved significant legislation designed to fast track many development permit applications in areas designated for smart growth in New Jersey. Known as Chapter 89 of the laws of 2004, the new legislation becomes effective on November 6, 2004.

The law applies in "smart growth areas," which include planning areas 1 and 2 and centers designated under the State Development and Redevelopment Plan (SDRP); growth centers in endorsed plans

approved by the State Planning Commission and the Pinelands Commission; urban enterprise zones; municipally designated redevelopment areas approved by the Department of Community Affairs (DCA); and other similar areas designated by the Department of Environmental Protection (DEP).

For projects within such areas, applications for development permits from the Department of Transportation (DOT) or DCA are subject to expedited processing, including wetlands; stream encroachment; waterfront development; water main extensions under the Safe Drinking Water Act; treatment works approvals; septic approvals under the Realty Improvement Act; water quality management ("208") plan amendments; water allocation; NJPDES; well drilling; dam safety; and underground storage tanks. DEP permits which are not affected by the new legislation include CAFRA, air pollution, solid waste, and radiation protection

The law provides that an applicant seeking expedited review must have the application certified as complete and in compliance with applicable regulations by a private sector professional registered with the agencies.

The expedited procedures have strict, enforceable timeframes for permit processing. The substantive regulatory criteria for obtaining permits is unchanged; only the procedure will be expedited.

The law also provides for permits by rule, to be issued immediately once a qualified registered professional certifies that all regulatory requirements have been satisfied. These permits by rule include treatment works approvals for sewer lines, pump stations, and service connections in sewer service areas; water quality management ("208") plan amendments for new/expanded sewer service where there is an existing treatment plant; water main extensions where available capacity exists; and highway occupancy permits for drainage, utility openings, and utility poles.

The act establishes a special Smart Growth Unit in the Office of Administrative Law to hear and decide appeals from permit decisions on an expedited basis. In many cases, administrative law judges (ALJs) will be required to hear appeals within 45 days, and render a decision within 45 days thereafter. ALJ decisions will be final and not subject to review and reversal by the DEP Commissioner.

(By Richard M. Hluchan, Ballard, Spahr, Andrews and Ingersoll, NJ Real Estate Alert - 7/04)

NEW JERSEY FUNDS LOW INTEREST CLEAN WATER LOAN PROGRAM

New Jersey Governor James McGreevey has signed legislation authorizing up to \$800 million in appropriations to provide low interest loans to communities for projects that restore and protect clean water and drinking water resources.

"Clean drinking water should be a basic right for all New Jersey residents," said McGreevey as he signed the bill. "My administration will continue to fight for this right by providing funding for projects like these, preserving open space and adopting the highest level of protections for our rivers and streams."

The Department of Environmental Protection (DEP) and New Jersey Environmental Infrastructure Trust (NJEIT) in partnership are responsible for a program that provides 20 year low interest loans for projects that will protect water resources and drinking water supplies. Each year, the program accepts applications for loans primarily from public agencies, although the private sector is also eligible to receive loans for drinking water projects.

(Environment News Service - 7/28/04)

FEDERAL REGULATORY UPDATES

EPA OFFERS TO REPORT FOR ACHIEVING SMART GROWTH, WATER QUALITY GOALS

EPA has released a new report to help communities protect water resources and achieve smart growth.

According to the agency, some of the adverse effects of growth and development include loss of woodlands, meadowlands and wetlands, as well as increased polluted runoff. The report documents 75 innovative approaches - including redeveloping abandoned properties, encouraging rooftop gardens, creating shared parking and promoting tree planting - that state and local governments and water quality professionals can use to achieve their smart growth and water quality goals.

To request a free copy of the report, email ncepmal@one.net or call (800) 490-9198 and ask for EPA publication 231-R-04-002. The report and more information about smart growth are also available at <http://www.epa.gov/smartgrowth>.

(Environmental Protection E-News - 7/9/04)

OHIO LAWSUIT MAY BE TEST CASE FOR INTERIM BROWNFIELDS LIABILITY RULE

A recently filed lawsuit over lead contamination at a residential development in Ohio may be test case for how courts will interpret interim federal standards adopted under the brownfields law for assessing whether property developers are eligible for Superfund liability exemptions, EPA and industry sources say.

The suit comes as EPA has delayed sending its draft proposed rule setting final standards for winning the exemptions to the White House Office of Management and Budget because of internal agency concerns about the economic impact of the rule, EPA officials say. One agency official downplayed the concerns, saying they were "not a show-stopper." The brownfields law required EPA to implement the final rule by January 2004.

In a complaint filed June 2 in the U.S. District Court for the Southern District of Ohio, home-building giant The Ryland Group is seeking to recover cleanup costs and damages from a developer and environmental consultant after residents found high levels of lead on properties built on a former shooting range in Butler County, OH. The company - which purchased the property in 2000 - ultimately spent millions of dollars remediating the site and buying back properties from disgruntled homeowners following earlier cleanup efforts, according to the complaint.

In *The Ryland Group, Inc. v. The Payne Firm, Inc., et al.*, Ryland argues it is exempted from cleanup liability because it complied with the law's interim standard - even though they brought the property before the law took effect.

Superfund law provides a defense against liability at contaminated sites for innocent landowners. But the law, known as CERCLA, never defined standards for parties to conduct "all appropriate inquiry (AAI)" to determine whether they could use the defense until President Bush signed the brownfields law in 2002. The new law required EPA to promulgate a rule defining AAI.

As an interim measure, the brownfields law also required EPA to adopt an AAI standard created by the American Society for Testing and Materials (ASTM). The interim standard applies retroactively to property purchases made after May 31, 1997

and prospectively to properties purchased after the law was signed until EPA issues the final standard.

While industry and EPA officials agree that the interim standard will likely apply to the litigation, one industry source says the Ryland case could determine how the courts will apply the interim standard for contaminated properties purchased before President Bush signed the law. "The issue becomes, 'is a court required to apply the [interim] standard [retroactively]?' " the source says.

If the interim standard does apply retroactively, the case may also show how strictly courts will apply the standard. Will courts "require strict absolute compliance or substantial compliance [with the interim standard]?" the industry source says.

An EPA official says the agency has not provided any guidance on interpreting the language in the statute, nothing that it is a matter for the judicial branch.

An attorney for Ryland did not respond to requests for comment on the case, but the company asserts in its complaint that it performed AAI under the ASTM standard mandated by the brownfields law. The company's environmental assessment of the site, conducted in accordance with the ASTM standard, "is a required element for Ryland to avail itself of the 'innocent landowner' defense from potential CERCLA liability," the complaint says.

(Superfund Report - 6/21/04)

TOXIC RELEASES ROSE IN 2002; CRITICS CLAIM UNDERREPORTING

The level of toxic contaminants released into the environment in 2002 rose five percent over the previous year, the first such increase since 1997, data released in June by the U.S. Environmental Protection Agency shows.

By comparison, the total volume of toxic releases in 2001 declined by 13 percent from the previous year. Almost 25,000 facilities reported on nearly 650 chemicals, the EPA said.

While the Toxic Release Inventory (TRI) shows a 15 percent decrease from 2001 to 2002, the EPA attributes that figure to a court decision that affected reporting by the metal mining sector. "Without metal mining, there was a five percent increase from 2001 to 2002, primarily due to increases reported by one facility," the EPA said.

An EPA official cited the 1999 shutdown of BHP Copper Company's San Manuel plant in Tucson, Arizona, as the reason for the increase. The closing of a facility results in the reporting of components as waste releases, the agency explained.

Two environmental groups objected that the figures do not accurately reflect the level of toxic releases in the United States. They said EPA is allowing industry to underreport the amount of air pollution by 330 million pounds a year.

(Environment News Service - 6/24/04)

COUNTIES IN 22 STATES HAVE UNHEALTHFUL AIR BECAUSE OF SOOT

U.S. counties are home to nearly 100 million people appear to flunk federal air standards because of microscopic soot from diesel-burning trucks, power plants and other sources, the Environmental Protection Agency said in July.

The EPA said a preliminary analysis showed that 243 counties in 22 states - almost all in the eastern third of the nation and in California - may have to

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take additional measures to curb pollution to meet the standard by 2010.

EPA Administrator Mike Leavitt cautioned that the designations are preliminary and some counties may be taken off the list after further discussions with state officials. A final designation of areas in noncompliance will be made in November.

Leavitt called the need to reduce airborne microscopic soot - particles less than one seventh as wide as a human hair - "the single most important action we can take to make our air healthier." He said soot-filled air annually causes 15,000 premature deaths, 95,000 cases of chronic or acute bronchitis, and thousands of hospital admissions because of respiratory or cardiovascular illnesses.

The EPA in 1997 issued tougher standards for soot, for the first time regulating particles as small as 2.5 microns. But because of lengthy litigation finally resolved in 2002, the agency has yet to implement the requirements or even officially designate what areas violate the standard.

The designations made public were characterized as the initial agency step to putting states on notice as to which ones likely will have to submit additional pollution control plans.

Leavitt said federal requirements being phased in to reduce sulfur in gasoline and diesel fuel; requirements for cleaner trucks; and programs aimed at curbing interstate transfer of pollution from power plants will go a long way toward meeting the soot air standards.

(Associated Press, Gloucester County Times - 7/1/04)

EPA's LATEST LEAD REPORT SHOWS LIMITED WATER SUPPLY PROBLEMS NATIONWIDE

States' information on water utility 90th percentile lead levels reported under the Lead and Copper Rule (LCR) "continues to show that there does not appear to be a widespread problem with elevated lead levels across the country comparable to that currently being observed in the District of Columbia," EPA reports in its latest summary of the data.

Building on its initial preliminary summary last month of LCR data from systems serving more than 50,000 people, the updated summary includes additional and corrected data from large systems, as well as new data from systems serving 3,300 to 50,000 people.

EPA emphasized, however, that problems with California's data forced the agency to hold it in a separate database pending resolution of the problem, which it said stems from the state's inconsistent entry of monitoring period start and end dates. The separate database includes California data from 80 of 150 large systems and 280 of 498 smaller systems.

The report shows that through June 1, data show that less than 4 percent of currently active community and noncommunity water systems have exceeded the LCR action level of 15 micrograms/L,

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with most 90th percentile readings coming in under 5 micrograms/L.

(Water and Wastes Digest - 6/29/04)

EPA EYES NEW POLICIES FOR REMEDIATING INSOLUBLE DNAPL CONTAMINATION

EPA may develop a host of new cleanup policies for addressing chemicals commonly found at contaminated sites that are extremely difficult to remediate, known as dense nonaqueous phase liquids (DNAPLs), according to two new agency studies.

The studies, developed by separate EPA panels, recommend the agency revisit earlier DNAPL cleanup decisions and create new guidance to better determine when cleanup efforts may be warranted.

DNAPLs are chemicals that do not easily dissolve in water and that often penetrate deep into groundwater aquifers, making contamination difficult to identify and remediate. EPA estimates that DNAPLs, which include chlorinated solvents and polychlorinated biphenyls, are found at 60 percent of Superfund sites and large numbers of Resource Conservation & Recovery Act sites.

EPA's groundwater task force, formed under the auspices of the agency's One Cleanup Program, released a paper May 10 that considers several policy options for addressing DNAPLs, including developing "fact sheets" describing the benefits of various cleanup approaches and alternative cleanup goals.

The paper, Cleanup Goals Appropriate for DNAPL Source Zones, proposes that EPA develop supplemental guidance on technical impracticability (TI) determinations, which are EPA rulings that alternative cleanup methods should be approved because of the difficulty of cleaning up DNAPL contamination to drinking water standards. The paper suggests, "Such a guidance could resolve questions that are currently discouraging TI determinations." One industry official notes that obtaining a TI determination can be "almost impossible."

The paper also proposes that EPA issue a "policy memorandum re-emphasizing that program flexibilities are to be used for DNAPL source zones, as a means of setting cleanup goals that are achievable in a reasonable time frame." Industry officials say retaining flexibility is essential in meeting groundwater cleanup goals. However, the paper notes that EPA issued a similar memo in 1995 that "has had little discernable effect on remedy decisions."

In addition, the task force is proposing that EPA issue guidance on "recommended methods and approaches for delineating the extent of the DNAPL source zone," which may encourage site managers to characterize the contamination. However, this option would likely face industry opposition, the study notes. "There may not be a clear consensus on which characterization methods are most helpful," it states.

Other proposed guidances would focus on: determining when DNAPLs should be removed; developing performance measures for assessing the effectiveness of such removals; and developing accounting methods for comparing long-term remedies.

(Defense Environment Alert - 6/1/04)

ADDITIONAL DETAILS ANNOUNCED ON PROPOSED CLEAN AIR INTERSTATE RULE

The EPA released a supplement to its proposed

Clean Air Interstate Rule, providing additional implementation details, including model cap-and-trade programs for power plants that states may adopt to achieve required emissions reductions. The Clean Air Interstate Rule would establish permanent caps reducing emissions of nitrogen oxides (NOx) as sulfur dioxide (SO2) in the eastern United States. In 2015, NOx emissions from the electric power sector are estimated to be 65 percent below today's levels. SO2 emissions from that sector are estimated to be 50 percent below current levels by 2015 and about 70 percent below when fully implemented.

The proposed supplement provides for the use of a cap and trade program, like Clean Air Act's Acid Rain program, to ensure complete accountability and transparency as this rule is implemented. Each of the 29 states affected and the District of Columbia must submit a plan to EPA that demonstrates how it will meet its assigned statewide SO2 and NOx emissions budget (i.e., emissions reduction requirements which are provided in the January 2004 proposal).

The Clean Air Interstate Rule (proposed in January 2004, formerly the Interstate Air Quality Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone) is a national tool proposed to help communities achieve clean air and meet the health-based fine particle and 8-hour ozone standards. When combined with the recently completed Clean Air Nonroad Diesel Rule and other national control programs, the reductions required by the Clean Air Interstate Rule are anticipated to achieve significant regional improvements in air quality and reduce the need for additional local controls.

For more information on the supplemental proposal, the public comment and hearing processes, and the

January 2004 proposed Clean Air Interstate Rule, visit <http://www.epa.gov/interstateairquality>.

(Environmental Tip of the Week - 5/25/04)

CALIFORNIA POISED TO SLASH GREENHOUSE GAS EMISSIONS FROM VEHICLES

Greenhouse gases emitted by passenger cars and light trucks would be reduced 30 percent in 10 years under a draft proposal released by the California Air Resources Board (ARB). The proposed regulation would implement state legislation passed in 2002 to cut greenhouse gas emissions, which are responsible for global warming.

If the proposed is adopted, California would be the first state in the nation requiring automobile manufacturers to make cars that emit fewer global warming pollutants.

"The proposal protects public health and conforms to the language and spirit of [the legislation], which requires the ARB to limit emissions from California passenger cars that contribute to global warming," said ARB Executive Officer Catherine Witherspoon.

Transportation is California's largest source of carbon dioxide, with passenger vehicles and light duty trucks creating more than 30 percent of total climate change emissions. Due to advances in vehicle technology, it is now possible to reduce such emissions without sacrificing performance or other desirable vehicle attributes.

It analyzes a series of technology packages that automakers could use to reduce those gases and

finds that automakers can reduce greenhouse gas emissions by 23 percent by 2011, and up to 30 percent by 2014, across the vehicle fleets.

Read the ARB proposal at:

http://www.arb.ca.gov/cc/factsheets/cc_isor.pdf
(Environment News Service - 6/16/04)

DOT EXTENDS COMPLIANCE DATES FOR TWO RECENT FINAL HAZMAT RULES

The DOT has extended the compliance date to update and clarify requirements in the Hazardous Materials Regulations applicable to incident reporting requirements and the Hazardous Materials Incident Report (HMIR)

DOT Form F 5800.1. In response to appeals submitted by persons affected by the December 3, 2003 final rule, this final rule amends certain requirements, and makes minor editorial corrections. This final rule is effective January 1, 2005.

The final rule amendment are the following:

- 49 CFR 171.16(b)(1) has been clarified so that readers understand that either a written or electronic HMIR must be submitted, but not both
- Removed the supplemental guidance immediately following Item 23 from the HMIR
- Amended the requirement to provide the manufacturer and model number of any valve or device that failed on a tank to include the words "if present and legible"
- Corrected the definition of an "undeclared hazardous material"

For more information on this ruling see <http://hazmat.dot.gov/rules/69fr-30113.htm>

Applicability of the HMR to Loading, Unloading and Storage Operations

On October 30, 2003, RSPA published a final rule (68 FR 61905) to clarify the applicability of the Hazardous Materials Regulations (HMR) to loading, unloading, and storage operations. RSPA is delaying the effective date of the final rule from October 1, 2004 to January 1, 2005. Fourteen appellants raised a number of issues related to the consistency of the final rule with Federal hazardous materials transportation law; state and local regulation of hazardous materials facilities; the relationship of the HMR to regulations promulgated by OSHA, EPA, and ATF; the definitions adopted in the final rule for unloading incidental to movement, transloading, and storage incidental to movement; and the consistency of the final rule with security regulations adopted in a final rule issued under Docket No. HM-232.

Delaying the effective date will provide RSPA with sufficient time to fully address the issues raised by the appellants. It will also provide RSPA with sufficient time to coordinate the appeals document fully with the other Federal agencies that assisted in developing the HM-223 final rule.

For more information on this ruling see <http://hazmat.dot.gov/rules/69fr-30588.htm>

(Environmental Tip of the Week - 6/11/04)

MASSACHUSETTS REQUIRES 85 PERCENT MERCURY CAPTURE BY 2008

Massachusetts has announced new regulations to limit mercury emissions from the state's four oldest coal-fired power plants. The move is part of the state's drive to formulate clean air rules that are the toughest in the country, state officials say.

Under the direction of Governor Mitt Romney, a Republican, the Executive Office of Environmental Affairs and the Department of Environmental

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Protection (DEP) have promulgated a two phase mercury emissions standard.

The first phase requires facilities to capture 85 percent of the mercury contained in combusted coal by January 1, 2008. The second phase requires facilities to capture 95 percent of mercury on combusted coal by October 1, 2012. These limits are much tougher than the EPA's requirements for the country as a whole.

(Environment News Service - 6/2/04)

LAWSUIT THREATENED TO FORCE EPA ACTION ON STORMWATER RUNOFF

Two conservation groups notified the U.S. Environmental Protection Agency (EPA) they intend to sue the agency for failing to set standards controlling stormwater pollution from strip malls, subdivisions and other new developments.

The Natural Resources Defense Council (NRDC) and Waterkeeper Alliance charge that the EPA's "unwillingness" to control this pollution will lead to more beach closings, waterborne disease, flooding, fish kills and contaminated drinking water supplies.

They claim that the agency's inaction is illegal. The EPA now has 60 days to establish standards to avoid the lawsuit

Pollution from runoff from paved surfaces, such as parking lots, highways, rooftops, is the fastest growing source of water pollution across the country, according to a 2002 report by the Pews Oceans Commission.

(Environment News Service - 7/9/04)

TRUCKERS HAULING HIGHLY HAZARDOUS MATERIALS NEED NEW PERMIT

Trucking companies planning to haul highly hazardous materials must have a special safety permit, beginning January 1, 2005, the U.S. Department of Transportation's Federal Motor Carrier Administration (FMCSA) announced in July.

The safety permit will be required for motor carriers hauling certain types and amounts of radioactive materials, explosives, toxic inhalant materials and compressed or refrigerated liquid methane or natural gas.

"This regulation will promote the safe and secure transportation of the most dangerous hazardous materials," said FMCSA Administrator Annette Sandberg.

She said the special permit is needed because these highly hazardous materials would be dangerous in crashes or if used in terrorist attacks.

Under guidelines outlined in a final rule issued in July, the nation's approximately 3,100 hazardous materials carriers must meet all federal operational, safety and security standards and must communicate regularly with drivers by phone or other electronic device.

Carriers with poor safety ratings will be prohibited from transporting the hazardous materials requiring these special permits. Temporary safety permits may be issued to carriers without safety ratings for a period of 180 days pending the outcome of a compliance review, a measure the agency said would "prevent unnecessary interruptions of commerce."

Permits will be suspended or revoked from carriers failing to comply with the Federal Motor Carrier Safety Regulations, Hazardous Materials Regulations or similar state requirements.

The final rule is online at <http://fmcsa.dot.gov>. It also can be viewed in the DOT Docket Management System, <http://dms.dot.gov> by searching for docket number FMCSA-97-2180.

(Environment News Service - 7/2/04)

EPA ISSUES CONTIGUOUS PROPERTY OWNER GUIDANCE

A new contiguous property owner provision, section 107(q), provides CERCLA liability protection to landowners who own property that is or may be contaminated, but is not the original source of the hazardous substance contamination.

To meet the contiguous property owner statutory criteria, a landowner must show that he:

1. Did not cause, contribute, or consent to the release or threatened release;
2. Is not
 - a. Potentially liable for response costs at the facility, or "affiliated" with any such person through any direct or indirect familial relationship, or any contractual, corporate, or financial relationship (excluding such relationships created by a contract for the sale of goods or services), or
 - b. The result of a reorganization of a business entity that was potentially liable;
3. Takes reasonable steps to:
 - a. Stop any continuing release, and
 - b. Prevent any threatened future release, and
 - c. Prevent or limit human, environmental, or natural resource exposure to any hazardous substance released on or from property he owns;
4. Provides full cooperation, assistance, and access to those authorized to conduct response actions or natural resource restoration;
5. Is in compliance with any land use restrictions established or relied on in connection with a response action and does not impede the effectiveness or integrity of any institutional control employed in connection with a response action;
6. Is in compliance with any request for information or administrative subpoena under CERCLA;
7. Provides all legally required notices with respect to the discovery or release of any hazardous substance at the facility; and
8. Conducted all appropriate inquiry in accordance with CERCLA § 101 (35)(B) at the time of acquiring the property, and did not know or have reason to know that the property was or could be contaminated by release of threat of release of a hazardous substance from property not owned or operated by him.

(In January, EPA issued Section 107(q) Guidance)

EPA MUST LIMIT ALL TOXICS FROM VINYL PRODUCTION

Environmentalists won a partial victory in June when a federal appeals court ruled the U.S. Environmental Protection Agency (EPA) has failed to set emission limits for all hazardous air pollutants emitted by factories that manufacture polyvinyl chloride (PVC).

The popular plastic is used in the construction industry for siding water distribution irrigation and sewer pipe, wire and cable insulation, electrical conduit, floor and wall coverings, and roofing; in the healthcare industry for blood bags and tubing, packaging, gloves, masks, labware and medical devices; in vehicle manufacturing; toys and electronics.

PVC producers release large quantities of vinyl chloride, a known human carcinogen, in addition to other hazardous air pollutants that threaten the environment and public health in and around communities where these plants are located.

The environmentalists challenged a final agency rule that set limits for vinyl chloride, but did not address other pollutants emitted by these facilities.

methanol, chlorine, hydrogen chloride, and ethylene dichloride - exposure to these and other hazardous pollutants is associated with serious adverse health effects.

Although the court rejected the challenge to the vinyl chloride limits set by the agency, it agreed that the EPA must set standards for these other pollutants.

The court ordered the agency to reconsider properly why it has not set these limits.

(Environment News Service - 6/21/04)

EPA OPENS COMMENT ON THE ERP OR NSR AND UPDATES REGULATIONS TO REFLECT COURT STAY

EPA has granted a request to reconsider several aspects of the equipment replacement provision (ERP), which were adopted as part of regulatory changes to the New Source Review (NSR) Clean Air Act permitting program.

In response to petitions to reconsider portions of the ERP, EPA is soliciting additional public comment on the following three issues: 1) the basis for determining that the ERP was allowable under the Clean Air Act; 2) the basis for selecting the cost threshold (20 percent of the replacement cost of the process unit) that was used in the final rule to determine if a replacement was routine; and 3) a simplified procedure for incorporating a Federal Implementation Plan into state plans to accommodate changes to the NSR rules.

In a separate action, EPA is updating the Code of Federal Regulations and restoring the Routine Maintenance Repair and Replacement (RMRR) exclusive that was in effect prior to the adoption of ERP in order to reflect an appeals court stay of the final ERP rule. In December, the U.S. Court of Appeals for the District of Columbia Circuit stayed implementation of the ERP based upon a challenge by environmental groups, public interest groups and several states. The stay was granted until the rule could be thoroughly reviewed by the court. The regulatory update is administrative in nature and will require no change in implementation of the RMRR, which is currently in effect.

The text of the actions announced and fact sheets summarizing them are available at : <http://www.epa.gov/nsr/actions.html>.

(Environment Tip of the Week - 6/30/04)

SPCC ONE-YEAR EXTENSIONS PROPOSED BY EPA

Environmental Protection Agency ("EPA") finally responded to the pleas of the regulated community and proposed one-year extensions to the Spill Prevention, Control and Countermeasure ("SPCC") Plan preparation date of August 17, 2004 and the SPCC Plan implementation date of February 18, 2005. See 69 Fed.Reg. 34014 (June 17, 2004). If adopted as proposed, companies will have until August 17, 2005 to revise your SPCC Plan(s) to comply with the rule changes promulgated by EPA on July 17, 2002 (67 Fed.Reg. 47042), and you will have until February 18, 2006 to implement the

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provisions in the newly completed plan.

In the interim, make sure that your facility is continuing to comply with the SPCC requirements at 40 C.F.R. Part 112 that were in effect prior to the July 17, 2002 rule changes. EPA is continuing to inspect facilities for compliance with these requirements.

Comments on the extension were due by early July.

(Babst Calland Administrative Watch - 6/04)

EPA ISSUES NONROAD DIESEL RULE

Announced May 11, the Bush administration's Clean Air Nonroad Diesel Rule has earned praise from industry groups, environmentalists and public health advocates alike.

According to EPA, the rule will cut emission levels from construction, agricultural and industrial diesel-powered equipment by more than 90 percent. The rule will also remove 99 percent of the sulfur in diesel fuel by 2010, resulting in dramatic reductions in soot from all diesel engines.

"We are going to make that burst of black smoke that erupts from diesels a thing of the past," EPA Administrator Mike Leavitt said. "We're able to accomplish this in large part because of a collaboration with engine and equipment manufacturers, the oil industry, state officials, and the public health and environmental communities.

Jed Mandel, president of the Engine Manufacturers Association, said, "Because nonroad engines must operate under harsh...conditions, meet unique performance requirements and vary over a wide range of engine sizes and power requirements, meeting EPA's new emissions standards will be no simple task and will require a large development effort on the part of engine and emissions control equipment manufacturers. However, given time to adapt the technologies and lessons learned from the on-highway engine market to non-road engines, we are confident that manufacturers will be able to provide the emissions reductions called for in the regulation."

For more information on the rule, visit <http://www.epa.gov/cleandiesel>.

(Environmental Protection E-News - 5/13/04)

CHANGES TO DOT REPORTABLE INCIDENTS

On July 1, 2004, new DOE regulations on reportable incidents became effective. The changes include revisions on who must report hazardous material incidents, what incidents are reportable, and the written notification form itself, as directed in 49 CFR 171.16. The rule published in the December 3, 2003 Federal Register.

Under the new requirements, the person with physical possession of the hazardous material must report incidents occurring during transportation, loading, unloading, and temporary storage. Immediate notice by phone and/or a detailed incident report are required, depending on the incident. Historically, the carrier was responsible for reporting.

The revised 49 CFR 171.15 indicates that incidents requiring immediate notification to the National Response Center (800-424-8802) include those where, as a direct result of the hazardous material, one of the following occurs:

- Person is killed
- Injuries require hospitalization
- Public evacuation of 1 hour or more

- Transportation artery/facility closed for 1 hour or more

- Flight pattern is altered by incident
- Fire, breakage, spillage, or suspected contamination of:

- Radioactive materials
- Infectious substances
- Marine pollutant release in quantity > 450L or 400 kg

The person that reports the incident determines that it should be reported (e.g. continuing danger to life at scene)

If one of these reportable incidents occurs, the person in possession of the hazardous material must call the National Response Center as soon as practical but no longer than 12 hours after the incident with the required information:

- Caller's name
- Caller's contact phone number
- Name and address of the person represented by the caller
- Date, time and location of the incident
- Extent of injury, if any
- Hazardous material classification, proper shipping name and quantity, if available
- Type of incident and nature of hazardous material involvement
- If there is continuing danger to life at the scene

The regulations at 49 CFR 171.16 state that a detailed incident report (DOT Form 5800.1, Rev. 01/2004) must be submitted within 30 days, in an electronic or written format. This detailed report is required for:

- Incidents that require immediate notification (as listed above)
- Unintentional releases of hazmat or discharges of hazardous waste
- Structural damage of cargo tank containing hazmat occurs
- Undeclared hazmat is discovered

The addition of reporting undeclared hazmat is particularly important to the DOT in their effort to minimize the number of undeclared shipments so as to increase safety, particularly with air shipments. The release reporting requirements do not apply to certain consumer commodities, batteries, and paint related material (when shipped in a packaging of five gallons or less), and limited quantities.

A copy of the new DOT Form 5800.1 can be found on page 67761 of the December 3, 2003 Federal Register.

(Environmental Tip of the Week - 5/11/04)

DO COMPANIES FULLY REPORT ENVIRONMENTAL LIABILITIES?

The GAO released a report on July 16, 2004, regarding environmental disclosure. Initial reviews of the report makes no profound recommendations or findings. The most significant action is that the GAO does call for the SEC and EPA to coordinate better and for EPA to provide information on environmental liabilities to SEC in a more formalized manner. Both EPA and the SEC have agreed to do that and they will meet in the near future to begin that process.

The report concluded that there is not enough information to determine if companies are under-reporting. This mainly comes from research on companies that already disclose and there are wide variations in the information that those companies

present. Therefore, the GAO could reach no firm conclusions.

The report does point out that the SEC does not systematically track environmental disclosure and the SEC does not have a public database that provides information on letters and responses the SEC has made on environmental disclosure. The SEC has committed to work to rectify these situations.

While some experts said the SEC needed to make no changes, GAO's survey of experts in this field found that the SEC should:

- Modify its requirements and guidance on environmental disclosure
- Increase oversight of environmental disclosure
- Pursue non-regulatory measures to encourage better environmental disclosure

The experts were very polarized; being split between those who said the SEC was too flexible and narrowly focused and those indicating the SEC was doing it just right. The GAO concluded that its expert panel (made up of 30 persons) was too small a sample to make any conclusions.

Commissioner Campos represented the SEC and Deputy Assistant Administrator Shimberg (Enforcement) represented the EPA at the release of the report. Both the SEC and EPA were pleased with the report and said they were committed to implementing its recommendations.

In short, the report said there is not enough information to draw a conclusion about environmental disclosure, but EPA and SEC should work together to see if companies are disclosing properly.

A full copy of the report and more information can be found at:

www.gao.gov/docsearch/repandtest.html.

(National Brownfields Association - 7/19/04)

EPA DELAYS RCRA FINANCIAL ASSURANCE RULES PENDING ADVISORS' GUIDANCE

EPA will not issue regulations on the financial guarantees that Resource Conservation & Recovery Act (RCRA)-regulated hazardous waste landfills must obtain to pay for closure and post-closure costs until an external advisory board provides recommendations on improving the requirements, according to an EPA official.

Dale Ruther, of EPA's Office of Solid Waste, told state waste officials July 12, "At this point, I think we're going to wait and see what the Environmental Financial Advisory Board (EFAB) comes back with" before developing any new RCRA financial assurance regulations. Ruther made his remarks at the Association of State & Territorial Solid Waste Management Officials (ASTSWMO) State Hazardous Waste Conference.

The announcement comes despite growing concerns that some RCRA-regulated landfills often go bankrupt, leaving federal and state governments to pay for any cleanup if the sites are contaminated because of leaks and launching an internal study on how many RCRA facilities become Superfund remedial action and removal sites. "It's something we're concerned about," Mjones said.

EPA tasked the EFAB with evaluating financial assurance mechanisms such as the financial test - which allows companies and others to show they will be able to pay for landfill closure and post-closure costs by proving their financial strength - corporate guarantees and different types of insurance. The EFAB held its first meeting on financial assurances last month but has not announced when it

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will report back to EPA.

But some state officials are concerned about the absence of EPA requirements. One official attending the meeting said, "It's hard for states to take a position without any backup regulations from EPA." Another state official said, "The financial test makes states nervous" and cited concerns about states' inability to fully evaluate companies' financial strengths.

Meanwhile, some states are moving ahead with their own financial assurance regulations given the lack of federal guidance. Washington state is preparing to finalize a new financial assurance rule that expands the state's mandates to off-site recyclers and used oil processors, prohibits so-called captive insurance - which involves a subsidiary insuring its parent company - and requires that companies have "good" or better insurance and bond ratings, according to a presentation by Jim Sachet of the state's Department of Ecology.

(Superfund Report - July 19, 2004)

STATES, ENVIRONMENTALISTS CHALLENGE POWER PLANT COOLING WATER RULE

Six Northeastern states and a coalition of environmental groups filed separate law suites challenging a U.S. Environmental Protection Agency (EPA) rule that regulates the intake of cooling water by existing power plants.

Both suits charge the rule is far too lenient and fails to minimize power plant fish kills as required by the Clean Water Act.

over plants withdraw billions of gallons daily from

reservoirs, rivers and lakes to cool their turbines. The practice kills large numbers of fish and other aquatic organisms that are drawn into intake pipes along with cooling water.

The regulation being challenged is known as the Phase III rule - it applies to some 540 existing power plants that withdraw more than 50 million gallons of water per day. Both the environmentalists and the attorneys general have asked EPA to stay the regulation, set to become effective on September 7, 2004, until their challenges have been considered in court. The challenged rule is the second of three cooling water intake regulations the EPA is required to develop under the Clean Water Act and pursuant to a consent decree files in 1995 as a result of a lawsuit brought by several environmental groups.

The Phase I rule, which was finalized in 2002, called on new facilities that draw 10 million gallons of water or more a day from natural water bodies to use cooling systems with recirculated water. These systems, known as "closed-cycle" cooling, can reduce fish kills by some 95 percent.

But the Phase II rule, finalized on July 9, allows existing plants to withdraw billions of gallons per day through their "once through" cooling systems, rather than converting to closed-cycle cooling. It requires plants to reduce the number of aquatic organisms drawn into the cooling systems by 60 percent. Further reductions or a mandate to use closed-cycle cooling would be too expensive for the industry, according to the EPA, which estimated the Phase II rule will cost the utilities some \$400 million annually to implement.

"The Second Circuit court was very clear that the Clean Water Act requires best technology, not after-the-fact attempts at mitigation," Super said.

Federal regulation of cooling water intake has been a long time coming. A 1972 amendment to the Clean Water Act called on the agency to create appropriate regulations- in 1977, the 4th U.S. Circuit Court of Appeals remanded EPA's first attempt at under on procedural grounds.

Environmentalists sued in 1993, filed a consent decree in 1995 and in 2001 the EPA issued the Phase I rule. Phase II was finalized in February and published in the Federal Register on July 9.

The Phase II rule, scheduled for proposal in November 2004, will be existing electric generating plants using smaller amounts of cooling water and for other manufactures.

(By J R Pegg, Environment News Service - 7/27/04)

NEW PUBLICATION - PERFORMANCE MONITORING OF MNA REMEDIES FOR VOCs IN GROUNDWATER

This document provides technical recommendations regarding the types of monitoring parameters and analyses useful for evaluating the effectiveness of the natural attenuation component of groundwater remedial actions. The information will be helpful during the design of the performance monitoring plan as well as during its implementation (April 2004, 92 pages). View or download at <http://www.epa.gov/ada/download/reports/600R04027/600R04027.pdf>.

(Tech Direct - 8/1/04)

Construction Waste Management, LLC Reduces Waste Going To Landfills

Construction Waste Management, LLC (a division of ASG, Inc. T/A Builders Cleanup) a Philadelphia based firm, is set to begin to reduce the amount of C&D waste going to local landfills. The National Builders Association estimates that 8,000 lbs. of C&D waste, 80% of which is unpainted framing wood and gypsum wallboard, is generated for every 2,000 s.f. home constructed. This is the equivalent of approximately 90,000 tons of wallboard alone which is generated each year and goes directly to landfills. Construction Waste Management, LLC (CWM) goal is to reduce the amount of C&D waste going to landfills by maximizing recycling at residential and commercial construction sites.

The Pennsylvania Department of Environmental Protection has issued ASG, Inc. T/A Builders Cleanup a Municipal Waste General Permit (WMGM025) on February 20, 2004. This permit allows ASG, Inc. T/A Builders Cleanup to process new left over construction

materials at new residential and commercial construction sites. These materials (unpainted framing wood, gypsum wallboard, brick, block and concrete materials) are crushed and beneficially reused right on the construction site as mulch, soil conditioner and subbase materials instead of being transported to landfills. The permit allows the beneficial use of 30,000 tons/year of gypsum wallboard, 25,000 tons/year of unpainted framing wood and 10,000 tons/year of brick, block and concrete.

On July 16, 2004, CWM completed a demonstration project at Swarthmore College as part of a new dormitory construction project designed under the US Green Building Council Leadership in Energy and Environmental Design (LEED) standards. To earn credits toward certification under this program, 50% of the waste produced during construction must be diverted from landfills, additional credits are awarded if 75% or more of the waste does not go to landfills. Over 40 tons of waste was diverted from the landfill and beneficially reused onsite. Gypsum wallboard was processed for use on the College's athletic fields as a soil conditioner and incorporated into leaf compost and topsoil providing calcium to enrich the soil and promote growth. Unpainted framing wood and pallets were processed and used as mulch. CWM estimates that 19% of the project's total waste stream were materials processed during the demonstration project, helping the College in its "Green Building" certification process for the project.

In addition to reducing the amount of C&D waste going to landfills, a significant cost savings was realized during this demonstration project. Historically, the College was purchasing gypsum for use as a soil conditioner. This cost could now be eliminated as the College can use the processed gypsum wallboard in its

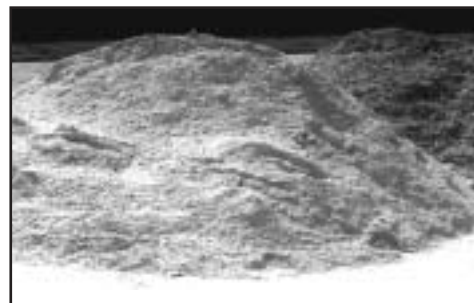
place. The cost of transportation and disposal was significantly less, as a smaller amount of waste was sent to landfills.

Nationally, as landfills approach their maximum capacities, the importance of C&D recycling operations similar to CWM will be realized. For instance, Massachusetts has recently proposed the first ban in the US. on certain C&D debris from being disposed at landfills. If the Massachusetts ban is successful, other states are expected to follow suit.

RT Environmental Services, Inc. prepared the Municipal Waste General Permit Application which made this demonstration project possible. We with Construction Waste Management, LLC the best in its new business, which meet's PA DEP Secretary Kathleen McGinty's objectives to maximize recycling and beneficial use throughout the Commonwealth. For more information on the PA General Beneficial Use Permits, call Walter H. Hungarter, III or Gary R. Brown, P.E. at (610) 265-1510.



Gypsum wallboard grinding unit equipped with an air filtration device to control dust emissions during grinding activities. The large pieces of gypsum wall board are being loaded onto the belt for processing.



Product pile on the left is gypsum wallboard following processing. Product pile on the right is mulch (2" minus) product following processing.

BIG CITY GROWTH RETURNS TO THE UNITED STATES

As per a recent Philadelphia Inquirer article, downtown's are definitely on the upswing these days, defying the predictions of those who thought that Americans would begin to avoid population centers after the September 11, 2001 attacks. Cities such as Chicago, New York, and Boston began to gain population in the 1990's, and are continuing to grow. Migration of young professionals and empty nesters to big-city downtowns was the highlight of the economic boom years of the last decade.

"The trend has resulted in more high-density, mixed-use, pedestrian-friendly development - the 'flip side' of the low-density, auto-dependent, segregated-use development that dominated much of the growth patterns following World War II," according to Richard Rosan, president of the non-profit Urban Land Institute.

Rosan says he thinks people are more likely to leave urban areas "if they are fed up with inadequate transit systems, inefficient planning, and a low quality of life," rather than because of fears of terrorism.

The downtowns that have experience revivals have been those that were not made unattractive places to live by so-called "urban renewal." The Fannie Mae Foundation asked 160 "urban specialists" to list what they considered the 10 top influences on the American metropolis between 1950 and 2000. At the top of this list, the specialists put the 1956 Interstate Highway Act and the dominance of the automobile. The Interstate Highway System was supposed to save central cities by rescuing them from automobile congestion, while also providing high-speed, long-distance travel from city to city.

Instead, the experts said, the highways "became snarled in ever-growing congestion, and their construction devastated many urban neighborhoods." Beltways designed to take traffic away from central cities became "Main Streets", carrying people to suburban housing and shopping. What made the downtowns attractive - historic buildings and small businesses - was destroyed when those areas

were bulldozed.

Interstate highways that ran through the downtowns made them "a pedestrian-unfriendly patchwork of highway ramps, empty lots, parking structures, and isolated buildings," according to Robert Fishman, a history professor at Rutgers University - Camden, who analyzed the survey responses for Fannie Mae.

Although Interstate 95 and the Schuylkill Expressway did their share to move people from Philadelphia to the suburbs, the decision to forgo a connection between the two highways through South Street in the 1960's spared not only that neighborhood, but paved the way for the resurgence of Center City and the re-creation of Society Hill and adjacent neighborhoods over the next 40 years.

Some cities, however, were not as fortunate as Philadelphia. Billions of dollars are now being spent to undo the damage interstate highways has created in places such as Boston, where the so-called "Big Dig" is taking 15 miles of elevated roadway downtown and putting it underground.

In Hartford, Conn., Interstate 91 once cut off the downtown from pedestrian access to the Connecticut River. A section of the road was removed, and the waterfront became a destination for the region.

And then there is downtown Columbus, Ohio - another victim of interstate highway construction, mostly Interstate 670. Before 1950, Columbus' downtown was seamless. Then I-670 came along, severing the central business district from Short North, a residential district.

In 1995, the interstate was redesigned, and a bridge was proposed over I-670 to link the downtown with Short North - both of which had been experiencing a revival, according to David Meleca, an architect over-seeing the project. Taking a cue from pedestrian bridges built in medieval times in European cities, what has become known officially as Union Station Place, modeled after a former rail station rejoins both sides of High Street after almost 40 years.

We at RT have seen an increasing trend over the last several years in brownfields redevelopment work, mostly in urban areas. This now turning into a torrent of projects. RT's projects include:

- Preferred Real Estate Investments redevelopment of the former Dresser Industries/Jeffrey Mining facility site, in the previously mentioned Short North area, as the Ohio State Library.
- At 801 Market Street, in Philadelphia, the upper floors of the Strawbridge's store, which formerly housed corporate headquarters, were redeveloped as commercial office space.
- In Royersford, Grainor Price Homes is redeveloping the former Anchor Glass Site, with residential development, directly along the Schuylkill River.
- In New Jersey, Preferred Real Estate Investments is redeveloping the former American Standard Site, immediately adjacent to the Hamilton Township, New Jersey Northeast Corridor Rail Station, also as commercial redevelopment.

Recent trends also indicate that redevelopment is spreading from inner urban areas, to more distant redevelopment sites, with the Hamilton, New Jersey and the Royersford, Pennsylvania sites being key examples.

Both New Jersey's Brownfields Program and the Pennsylvania Land Recycling Program, are making such redevelopments possible and economical, as existing infrastructure and buildings can be made reusable within short redevelopment time frames. New Jersey's Brownfields Remediation reimbursement incentives at the current time, are making that states Brownfield's sites even more attractive.

RT is pleased to assist it's clients in the all important redevelopment of our urban areas, and we believe that stronger urban areas within the United States are something that we can all be proud of.

Gary Brown (*excerpts from Philadelphia Inquirer article by Alan J. Heavens - 8/1/04*)

PENNSYLVANIA BULLETIN NOTICES

Final Technical Guidance:

Technical Decision Making and the Use of Conventional Technology, Alternate Technology, Experimental Technology and Best Technical Guidance (BTG) in Onlot Sewage System Repair Situations. Effective Date: May 8, 2004

(PA DEP Update - 5/21/04)

Final Technical Guidance- Substantive Revision:

Technical Reference Guide (TRG) PENTOXSD for Windows PA Single Discharge Wasteload Allocation Program for Toxics Version 2.0. Effective Date: May 22, 2004

(PA DEP Update - 5/21/04)

Interim Final Technical Guidance:

Guidance for Evaluating Alternate Recycle Return Locations Proposed under the Filter Backwash Recycling Rule (FBRR). Comments were being accepted through June 28.

(PA DEP Update - 5/29/04)

Draft Technical Guidance:

Recognition of Cost Items Associated with Concurrent Act 537 and Combined Sewer Overflow Long Term Control Plan (LTCP) Planning. Comments were being accepted through June 28.

(PA DEP - 5/28/04)

Final Technical Guidance:

Underground Storage of Explosives. Effective Date: June 19.

(PA DEP - 6/11/04)

Final Technical Guidance:

Technical Reference Guide WQM 7.0 for Windows Allocation Program for Dissolved Oxygen and Ammonia Nitrogen Version 1.0. Effective Date: June 26, 2004.

(PA DEP Update - 6/25/04)

Final Technical Guidance:

Experimental Onlot Wastewater Technology Verification Program. Effective Date: July 3.

(PA DEP Update - 7/2/04)

TECHNOLOGY UPDATES

DOCTORS RECOMMEND MERCURY FISH WARNINGS BE POSTED IN STORES

Those concerned about the toxic effects of mercury on human health and the environment are pleased with new policy statements adopted by the American Medical Association. The doctors are calling on the federal government to test fish for mercury levels and require stores to post mercury warnings wherever canned tuna and other fish are sold.

At its annual meeting June 12 to 16 in Chicago, the American Medical Association (AMA) adopted resolutions warning that women who might become pregnant, are pregnant, or who are nursing should follow federal, state, and local advisories on fish consumption. "Because these advisories may differ, the most protective advisory should be followed," the doctors said.

Physicians should assist in educating patients about the relative mercury content of fish and shellfish products, the AMA decided; they should make patients aware of the advice in both national and regional consumer fish consumption advisories.

Testing of the mercury content of fish should be continued by appropriate agencies, the physicians said, and results should be publicly accessible and reported in a consumer friendly format.

"Given the limitations of national consumer fish consumption advisories, the [U.S.] Food and Drug Administration should consider the advisability of requiring that fish consumption advisories and results related to mercury testing be posted where fish, including canned tuna, are sold," the new AMA policy states.

Mercury is a persistent, bio-accumulative toxin that poses a significant health risk. A potent neurotoxin, mercury exposures can affect the brain, kidneys and liver, and spinal chord, and cause developmental problems.

Recent findings by the U.S. Environmental Protection Agency (EPA) indicate that one in every six women of childbearing age has unsafe mercury blood levels.

In March, the EPA and FDA issued a joint notice advising pregnant and nursing women, women who may become pregnant and young children to limit their consumption of canned albacore tuna to six ounces per week, an amount equal to one average meal. The advisory said the same groups should eat no more than 12 ounces, or two average meals, of canned light tuna and other fish that are lower in mercury.

(Environment News Service - 7/9/04)

ENVIRONMENTAL FACTORS THE MAJOR CAUSE OF CANCER

Most cases of cancer are linked to environmental causes, U.S. government scientists report, and simultaneously, a second group of government researchers says the number of cancer survivors is growing the United States. Cancer is the second leading cause of death for Americans after heart disease.

But more people diagnosed with cancer are living longer today than ever before. A new report by the Centers for Disease Control and Prevention (CDC) and the National Cancer Institute (NCI) released in June shows that 64 percent of adults whose cancer is diagnosed today can expect to be

living in five years.

The majority, 61 percent, of cancer survivors are aged 65 and older, and the study estimates that one of every six people over age 65 is a cancer survivor. The findings are published in the June 25 issue of CDC's Morbidity and Mortality Weekly Report, "Cancer Survivorship - United States, 1971 - 2001."

Cancer linked to environmental causes make up at least 80 percent of all cancer cases, according to a second new report by the National Cancer Institute, this one published with the National Institute of Environmental Health Sciences. Environmental causes include exposure to agents in the air and water as well as lifestyle factors such as smoking and diet.

(Environment News Service - 6/28/04)

U.S. NOT READY FOR IMPENDING WATER CRISIS

The U.S. government is ill prepared to confront increasingly severe water shortages across the country and should make a new commitment to water research and governance, water experts warn in a new report. Water research is fragmented among 20 federal agencies and is poorly coordinated, according to a new study from the National Academics of Science sponsored by the U.S. Geological Survey (USGS).

The report comes on the heels of an announcement by USGS scientists that the parched Interior West could be drier it has been in 500 years. A decade of drought has produced the lowest flow on record in the 1,400 mile long Colorado River, which provides drinking water to Phoenix and Las Vegas.

USGS scientists said that drought continues to affect a broad area of the West, from the Central Plains into the Northern Rockies, and has now moved into the Southeast.

(Environment News Service - 6/21/04)

SUPERCOMPUTER FINDS CLIMATE LIKELY TO HEAT UP FAST

A powerful new supercomputer climate modeling system at the National Center for Atmospheric Research (NCAR) has found that global temperatures may rise more than previous projections if humans continue to emit large quantities of carbon dioxide into the atmosphere. The system, known as the Community Climate System Model, version 3 (CCSM3) was unveiled Wednesday in Boulder.

CCSM3 shows that global temperature could rise by 2.6 degrees Celsius (4.7 degrees Fahrenheit) in a hypothetical scenario in which atmospheric levels of carbon dioxide are suddenly doubled. That is greater than the two degree Celsius (3.6 degree Fahrenheit) increase that had been indicated by the previous version of the model.

William Collins, a NCAR scientist who oversaw the development of the new system, says researchers have yet to pin down exactly what is making the model more sensitive to an increased level of carbon dioxide. But he says the model overall is "significantly more accurate" than its predecessor.

Climate models work by solving mathematical formulas, which represent the chemical and physical processes that drive Earth's climate, for thou-

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sands of points in the atmosphere, oceans, sea ice, and land surface. CCSM3 is so complex that it requires about three trillion computer calculations to simulate a single day of global climate, NCAR explains.

As scientists learn more about the atmosphere, the world's most powerful climate models are in general agreement over the climate effects of carbon dioxide, the most prevalent greenhouse gas, which is emitted by burning of fossil fuels in motor vehicles and industrial plants. Observations show that atmospheric levels of carbon dioxide have increased from 280 parts per million by volume (ppmv) in preindustrial times to more than 370 ppmv today, and the increase is continuing.

A doubling of carbon dioxide over present-day levels would significantly increase global temperatures, according to all the major models. The models do not always agree, however, on the complex impacts of clouds, sea ice, and other pieces of the climate system.

Scientists will contribute findings from CCSM3 to the next assessment by the Intergovernmental Panel on Climate Change, an international research body that advises policymakers on the likely impacts of climate change.

(Environment News Service - 6/24/04)

PANEL: MOLD BLAMED FOR BREATHING PROBLEMS

Increased effort is needed to reduce mold-producing moisture in buildings that has been blamed for respiratory problems, including some asthma, a scientific panel said in May. While the study by the Institute of Medicine did not blame mold for other, often major illnesses that some have sought to associate with it, the report couldn't rule out those dangers either.

"In short, excessive building dampness is not your friend, It's associated with a lot of things that could give rise to problems," said Noreen Clark, dean of the School of Public Health at the University of Michigan. "Even though the available evidence does not link mold or other factors associated with building moisture to all the serious health problems that some attribute to them, excessive indoor dampness is a widespread problem that warrants action at the local, state and national levels," she said.

Excessive dampness influences whether mold, as well as bacteria, dust mites and other such agents, are present and thrive indoors, the committee noted. In addition, the wetness may cause chemicals and particles to be released from building materials. A rare ailment known as hypersensitivity pneumonitis also was associated with indoor mold exposure in susceptible people. But the committee said it was unable to find evidence that mold is associated with fatigue, neuropsychiatric disorders or other health problems that some people have attributed to fungal infestations of buildings.

The committee said information exists on how to

TECHNOLOGY UPDATES (CONTINUED)

control dampness but architects, engineers, building contractors, facility managers and maintenance staff do not always apply this knowledge. The members called for development of guidelines for preventing indoor dampness and said they should be promoted nationally. In addition, building codes and regulations should be reviewed and modified as necessary to reduce moisture problems, the committee said.

Lawsuits claiming illnesses from mold in buildings that were not properly built or cleaned up to have multiplied in recent years.

Changes in building codes in the 1970's to make homes more energy efficient and airtight had the effect of allowing less ventilation through a house that would dry out wet wall or floor, which in turn may have led to more mold damage claims, according to attorneys involved in some cases.

(By Randolph Schmid, Gloucester County Times 5-26-04)

NOAA REPORTS THIRD WARMEST SPRING ON RECORD FOR U.S.

All regions of the contiguous United States were warmer than average in spring (March - May), according to scientists at the NOAA Climatic Data Center in Asheville, N.C. The global average temperature was also the fourth warmest on record for the same period. Additionally, the Southeast and parts of the West were unusually dry during spring, but precipitation was above average in the Great Lakes region.

According to NOAA, the average temperature for the contiguous United States for March - May was 54.7 degrees F (12.6 degrees C), which was 2.9 degrees F above the 1895-2003 mean, making it the third warmest spring on record. Florida was the only state in the contiguous United States with a near-normal temperature.

The mean temperature in the 30 states was much above average, including Oklahoma and Kansas, which had their warmest spring on record. An additional 17 states were warmer than average, according to NOAA.

(Environmental Protection E.- News - 6/24/04)

NATIONAL ACADEMY OF SCIENCES TO REVIEW EVERGLADES RESTORATION

The federal government and the state of Florida have agreed to allow an independent scientific panel to review the massive \$7 billion, 30 year Everglades restoration plan.

The review of the Comprehensive Everglades Restoration Plan (CERP) will be accomplished by the National Academy of Sciences and will produce biennial reports to Congress on the progress of the restoration. The agreement to set up the review, was signed by the U.S. Army Corps of Engineers, U.S. Interior Department and the South Florida Water Management District.

The Comprehensive Everglades Restoration Plan is a daunting effort by any measure. It covers 16 counties across more than 18,000 square miles and centers on revamping the Central & Southern Florida Project, which includes 1,000 miles of canals, 720 miles of levees, and hundreds of water control structures.

This enormous water control project has provided south Florida with a reliable water supply and flood protection, but it has contributed to the wide-

spread degradation of the Everglades ecosystem, which is dependent upon a natural, slow, steady flow of clean water.

The Everglades has been ravaged by agricultural pollution, invasive species and inhibited natural water flows caused by Army Corps projects and subsequent development. The ecosystem is about a fifth of its original size and contains some 60 endangered or threatened species.

(Environment News Service - 6/16/04)

FLAME RETARDANT CHEMICAL FOUND IN ARCTIC WILDLIFE

A chemical widely used as a flame retardant in consumer electronics, furniture and clothing has been found in polar bears and Arctic birds. This discovery, announced by Norwegian scientists adds to growing concern that the chemical - known as Deca - is persistent and accumulates in humans and wildlife.

Polar bear samples analyzed by the National Veterinary Institute in Oslo and blood and eggs from glaucous gulls analyzed by the Norwegian Polar Institute were both found to contain Deca, a type of polybrominated diphenyl ether (PBDE). The human health impacts of PBDE's, developed in the 1960s, are not well known, but scientists have found they cause neurological damage in laboratory animals. The samples, taken from the remote Arctic archipelago of Spitsbergen, are the first evidence that Deca accumulates in wildlife far from any potential source.

Two other forms of PBDEs - Penta and Octa - have been found to be extremely persistent and accumulate in the body, much like mercury, lead and polychlorinated biphenyls (PCBs). Researchers have determined that Deca - although less easily absorbed by the body than other PBDEs - breaks down under sunlight and during metabolic processes into chemical components of Penta.

In addition, research shows that Deca escapes into the environment because it is not chemically bound to products to which it is added.

(Environment News Service - 6/2/04)

MOUSE ALLERGENS FOUND IN MAJORITY OF U.S. HOMES

Scientists at the National Institute of Environmental Health Services (NIEHS) have found detectable levels of mouse allergen in the majority of a representative sample of U.S. homes. Dust samples used in the study were collected from kitchen and living room floors, upholstered furniture, beds, and bedroom floors.

The odds of having elevated mouse allergen concentrations were increased when rodent or cockroach problems were reported. Exposure to mouse allergen is a known cause of asthma in occupational settings, but until now, exposure to these allergens had not been studied in residential environments on a national scale.

The survey was conducted using established sampling techniques to ensure that the surveyed homes were representative of U.S. homes. The homes were sampled from 75 randomly selected areas - generally counties - across the country. The 831 homes included all regions of the country, all housing types, and urban, suburban, rural settings.

(Environment News Service - 6/9/04)

SEATTLE ROLLS OUT NATION'S LARGEST HYBRID BUS FLEET

New hybrid diesel-electric buses began rolling along the streets of Seattle, leaving less pollution and noise in their wake than the older diesel buses they replaced. 235 General Motors (GM) hybrid buses operate on both ultra-low sulfur diesel and electricity that is generated within the vehicle and stored in batteries on the roof.

They eliminate the need for overhead wires inside the Downtown Seattle Transit Tunnel, which Metro Transit is important since work begins next year to retrofit the tunnel to carry both buses and light rail.

"This hybrid bus is a first of its kind, and it's not surprising that it is showing up here first," said King County Executive Ron Sims. "We led the region on converting to ultra-low sulfur fuel, and now we are on the cutting edge for hybrid technology."

New Flyer of Winnipeg manufacturers the buses with diesel engines supplied by Caterpillar of Peoria, Illinois. General Motors plans to roll out more than 270 of its hybrid buses to 10 cities in 2004. These buses deliver 60 percent greater fuel economy than conventional transit buses, and can reduce certain emissions up to 90 percent, the company says.

"Replacing 13,000 transit buses in America's nine largest cities with hybrid buses would save 40 million gallons of fuel a year," GM says.

(Environment News Service - 6/9/04)

REPORT: POWER PLANTS ARE NO. 1 SOURCE OF AIR POLLUTION IN NORTH AMERICA

Coal- and oil-fired electric power plants accounted for almost half of all industrial air emissions in 2001, according to a new report from the Commission for Environmental Cooperation, an international organization created by Canada, Mexico and the United States under the North American Agreement on Environmental Cooperation.

The findings are part of Taking Stock 2001, the organization's annual report on chemical pollution from industrial facilities. The report compares data submitted to the Canadian and United States federal government by 21,254 facilities, which monitor their releases of toxic chemicals, including carcinogens and neurotoxicants, to the air, land and water. (Mexico does not yet require reporting but is expected to do so in the near future, CEC notes.)

According to the data, 46 of the top 50 polluters in North America were coal- or oil-fired power plants. Overall in North America, air releases decreased by 18 percent from 1998 to 2001. However, air releases, including smokestack emissions, continued to account for almost two-thirds of the chemicals released by companies on-site. For electric power plants, the decrease in toxic air releases was half the rate of other sectors over the same time period.

For more information, go to <http://www.cec.org>.
(Environmental Protection E.- News - 6/4/04)

ACTIVE CAPPING DEMONSTRATED ON ANACOSTIA RIVER

The Hazardous Substance Research Center/South and Southwest (HSRC/S&SW), a U.S. EPA-

TECHNOLOGY UPDATES (CONTINUED)

funded, university research consortium led by Louisiana State University, is demonstrating an active capping process to remediate portions of the Anacostia River in Washington D.C. The HSRC/S&SW is collaborating with EPA's SITE program, members of the Anacostia Watershed Toxics Alliance, the EPA/Industry Sediment Remediation Technology Development Forum, and the District of Columbia government. Conventional sand caps are designed to reduce containment release from sediments by physically isolating contaminants from organisms and the water column. The active capping process underway at the Anacostia, however, involves covering contaminants with layers of alternative materials that offer treatment and/or sequestration of contaminants.

Large amounts of sediment wash, excess nutrients, industrial waste, and urban runoff have severely degraded water quality of the Anacostia. As a result, the river contains extremely low levels of dissolved oxygen and high levels of bacteria that detrimentally affect aquatic life and use of the river. Demonstration of active capping is occurring on a grid of capping cells located on several acres along the river west of the Washington Navy Yard.

Extensive site assessment was conducted in 2002 to identify the sediment contaminants and their distribution and to characterize the site's hydrological and geotechnical properties. PCB concentrations in the demonstration sediment were found to reach 6-12 ppm, and total polycyclic aromatic hydrocarbons reached 30 ppm. In addition, elevated concentrations of target metals exist in the sediment: cadmium (3-6 ppm), chromium (120-155 ppm), copper (127-207 ppm), lead (351-409 ppm), mercury (1.2-1.4 ppm) and zinc (512-587 ppm). Although the flow velocity of the river is relatively low (less than 1 ft/s), the area is subject to 1-ft tidal variations and tidal influence seepage. Soft sediments with a surficial strength of approximately 10 lb/ft² underlay much of the area.

Following two years of laboratory treatability studies, HSRC/S&SW selected four alternative cap technologies for the demonstration:

- AquaBlokTM: a permeability control agent tested in conjunction with the SITE program
- Apatite: a phosphate mineral with ability to scavenge metals
- Coke: a high carbon-content material capable of sorbing organic contaminants, and
- Laminated mat: synthetic materials emplaced under controlled conditions, with coke for added weight.

The demonstration is taking place in five 100- by 100ft study cells, each containing one of the four capping materials as well as a conventional sand control. Two- to six-inch layers of capping materials were placed and verified using underwater surveying techniques. Conventional clamshell buckets introduced the cap materials in thin lifts.

Field efforts began in March 2004 with placement of a sand cap, followed by the alternative cap materials. Preliminary results indicate that the simple technique of clamshell distribution can effectively lay the thin lifts of cap material required over soft sediment. Some variation in material thickness due to intermixing with soft sediment and to placement variations has been noted, but no areas of inadequate cap coverage have been detected. Final

analysis of the cap placement effectiveness is expected in late spring.

Monitoring of the caps is underway to evaluate changes in chemical isolation, physical stability, and fate processes. Long-term monitoring of the site will continue to track sediment recovery and overall improvements to the Anacostia watershed. Preliminary performance of the capping materials will be evaluated in 2004 with monitoring continuing through at least 2005. Webcam viewing of the demonstration and project updates are available at <http://www.hsrc-ssw.org/anacostia/>.

(EPA Tech Trends - May 2004)

DELL OFFERS GRANTS FOR COMPUTER RECYCLING

Dell is offering \$220,000 in grant money to support computer recycling events in the fall of 2004. These grants are in addition to the \$120,000 in grants the company awarded in the spring. Company revenue for the past year totaled \$43.5 billion.

The company will award a series of \$10,000 grants to selected state, provincial and local governments, universities and other nonprofit groups, nearly doubling the number of organizations that participated in the spring 2004 pilot program. The grants will be awarded through an application and review process.

Through the spring program, which awarded \$10,000 grants to 12 organizations, more than 800 tons of unwanted computer equipment were collected in communities from Alaska to South Carolina.

Cities, towns, and counties won the majority of Dell's spring grants. Winners included the Central Contra Costa Solid Waste Authority of San Ramon, California; the Washington, DC Department of Public Works, Office of Recycling; the Town of Bethlehem, New York; and the cities of Atlanta, Georgia; Knoxville, Tennessee; Milwaukee, Wisconsin, and Santa Fe, New Mexico.

All proposals are reviewed by a grant review board of individuals from a variety of Dell business units, government organizations and experts from environmental and recycling organizations. Decisions for the U.S. grant awards were to be announced August 30 at the National Recycling Coalition's Annual Congress and Expo in San Francisco.

For more about the NRC, visit: www.nrc-recycle.org.

(Environment News Service - 7/6/04)

HUMAN CARBON EMISSIONS USING UP OCEANS' ABSORPTION CAPACITY

Humans have used up about one-third of the potential of the world's oceans to absorb the greenhouse gas carbon dioxide generated by human activities such as burning coal for electricity and gasoline for transportation.

The first comprehensive study of the ocean storage of carbon dioxide derived from human activities - anthropogenic CO₂ - determined that the oceans have taken up some 118 billion metric tons of this carbon dioxide between 1800 and 1994.

The international team of scientists who completed the survey said this total is approximately one-third of the oceans' long-term potential.

The global survey combined measurements of

carbon dioxide and other ocean factors such as temperature, salinity, oxygen, nutrients and chlorofluorocarbon tracers in the Atlantic, Pacific and Indian oceans.

These findings were published in the July 16 issue of the journal "Science".

"If the ocean had not removed 118 billion metric tons of anthropogenic carbon between 1800 and 1994, the CO₂ level in the atmosphere would be about 55 parts per million greater than currently observed," said Christopher Sabine, an oceanographer at the National Oceanic and Atmospheric Administration's Pacific Marine Environmental Laboratory and the lead author of one of the papers.

Today's CO₂ levels are reaching 380 parts per million in the atmosphere. By contrast, analysis of ice cores determined that for the 400,000 years before the industrial revolution began in the 1800s, atmospheric CO₂ concentrations remained between 200 and 280 parts per million.

Studies over the last decade have indicated that the land plants are taking up CO₂ at rates comparable to the oceans, but scientists have determined that over a 200 year time frame, land plants have released more of gas to the atmosphere than they have taken up.

The uptake of anthropogenic CO₂ by oceans changes their chemistry and potentially can have significant impacts on the scientific team.

(Environment News Service - 7/15/04)

MOLD - DETECTING RADAR EXPLORED

When mold is ignored, it can lead to structural problems and may lead to serious health issues, but detecting and remediating hidden mold, as in wall cavities, can be difficult and expensive.

To that end, researchers at Atlanta's Georgia Tech Research Institute (GTRI) are working with humidity control expert Lew Harriman in a two-year study to explore "the possibility of using radar to detect mold behind gypsum wallboard." Funded primarily by HUD, researchers, using damp, mold-infested wallboard panels, are "using a signal-processing algorithm and high-sensitivity, laboratory-size radar system recently developed by GTRI."

They will "determine the feasibility of using millimeter-wave, extremely high-resolution radar to detect mold in these panels based on unique characteristics of the mold backscatter signature. Also, Harriman will investigate the possibility that X-ray and gamma-ray technologies might work."

Ultimately, the goal of the research is to be able to develop handheld prototype, similar to a stud finder, to lay the technical foundation for a commercial product. They hope to make a product that would be cost-effective, projecting cost at between \$1,000 and \$2,000, and that contractors could learn to use quickly and easily. The complete article is available at http://www.csemag.com/news_stories/news116.asp

(American Indoor Air Quality Council - 5/6/04)

AURA EARTH OBSERVING SATELLITE LAUNCHED INTO ORBIT

After previous attempts ended by equipment malfunctions, NASA successfully launched the latest Earth Observing Satellite, in July.

Aura will help scientists understand how atmospheric composition affects and responds to earth's changing climate.

TECHNOLOGY UPDATES (CONTINUED)

The satellite will help reveal the processes that connect local and global air quality. It will also track the extent to which Earth's protective ozone layer is recovering from decades of ozone depleting chemicals.

Aura will carry four instruments each designed to survey different aspects of Earth's atmosphere. The instruments will provide an unprecedented picture of the composition of the atmosphere.

Aura will survey the atmosphere from the troposphere, where humankind lives, through the stratosphere, the location of the ozone layer that protects life on Earth from the harmful ultraviolet rays of the Sun.

"Aura, the first comprehensive laboratory in space to help us better understand the chemistry and composition of the Earth's atmosphere, is fundamentally a mission to understand and protect the very air we breathe," said NASA Associate Administrator for Earth Science Dr. Ghassem Asrar.

Aura's space-based view of the atmosphere and its chemistry will complete the first series of NASA's Earth Observing System satellites. The other satellites are, Terra, which monitors land, and Aqua, which observes Earth's water cycle.

(Environment News Service - 7/15/04)

BIOMIN IMPLEMENTS FOCUSED: REMEDIES FOR FOULING OF OILSORB AND CARBON BY: CALCIUM AND IRON

75% of early change outs of activated carbon are due to mineral fouling. If preventive action is taken, change outs can be reduced by 50%, and labor costs be cut by 75%.

One preventive method may be the use of inline magnetism. The calcite is converted to soluble aragonite. The magnets reduce the polarity of the minerals, the neutralize them, which means they will stay in solution. Contact Biomin if you are interested in using this method.

A second method involves lowering the pH to 5, at which point 80% of the carbonate ion (including bi-carbonate) breaks down into CO₂, which can be vented or scrubbed. Carbon dioxide addition is the cheapest and safest method for lowering pH, which will protect an air stripper.

Thirdly, an anti-scalant can be metered into the water, including sodiumhexametaphosphate (3-5 ppm) or polyacrylates (1-2 ppm), available from such firms as Betz or Nalco, which will also protect an airstripper. However, in many circumstances, such as when removing PCE, CO₂ or radon, a venturi aeration system can be installed. These systems operate under a low pressure gradient (20 psi), and strip substances with low Henry's constant. Contact Biomin for further information at <http://www.biomininc.com>.

USGS REPORT EXAMINES HEALTH OF US RIVERS, STREAMS

America's rivers and streams are generally suitable for irrigation, supplying drinking water, and home and recreational uses. However, in areas with significant agricultural and urban development, the quality of US water resources has been degraded by contaminants such as pesticides, nutrients, and gasoline-related compounds.

A series of 15 reports on the health of major river

basins across the country have been released by the USGS. The river basins include those in Pennsylvania, New Jersey, New York, Delaware, Maryland, and Virginia.

For more than a decade, USGS hydrologists have looked at three questions related to water quality. What are the conditions of our nation's streams and ground water? How is water quality changing over time? And how do natural features and human activities affect the quality of streams?

Major challenges that continue to affect streams and ground water are sources of pesticides, nutrients, metals, gasoline-related compounds and other contaminants. In urban areas, insecticides such as diazinon and malathion, which are commonly used on lawns and gardens, were found in nearly all of the streams that were sampled. Streams in agricultural areas were more likely to contain herbicides - especially atrazine, metolachlor, alachlor, and cyanazine.

Free copies of the NAWQA reports are available from 1-800-ASK-USGS, by fax 303-202-4693 or online at <http://pubs.water.usgs.gov/nawqasum/>.

(Water World - June 2004)

WATER PURIFICATION DEVICE WINS POPULAR SCIENCE AWARD

On July 14th, Senator Pete Domenici presented the Popular Science magazine's "Best of What's New" award to Dr. Tony Tether, Director, and Dr. Robert Leheny, Deputy Director, of the Defense Advanced Research Projects Agency (DARPA). The MSR® MIOX® Purifier, an individual use water purification device, was the Grand Award Winner for General Innovation in 2003, and is now being used both by the U.S. Military and by the general public to treat water to drinking water quality. DARPA provided the funding for research and development and was instrumental in bringing the MSR® MIOX® Purifier to realization.

The MIOX® Purifier is a prime example of a technology funded for the military that has significant advantages for people worldwide. Rodney Herrington of MIOX Corporation, V.P. of R&D and inventor of the purifier, stated, "DARPA's contribution to funding the miniaturization of the MIOX technology has not only supported the health and safety of our military, but has also provided the world with a technology with enormous humanitarian benefit."

Weighing only 3.5 ounces and measuring 7 inches in length, the MSR® MIOX® Purifier uses electricity to convert common table salt and water into powerful disinfectant. The purifier's small size and capacity to treat a large volume of water into a single dose make it ideal for any situation requiring pure water quickly and easily. The purifier has passed the EPA Guide Standard & Protocol for Microbiological Purifiers, achieving more than ten times the required inactivation level for bacteria, viruses, Giardia, and Cryptosporidium. The MSR® MIOX® Purifier is a miniaturization of MIOX Corporation's municipal water purification systems installed worldwide with a combined treatment capacity of over 1 billion gallons of water per day.

The MSR® MIOX® Purifier enables a more effective fighting force by improving mobility and stealth. Nearly 50% of the transportation sorties in Iraq are currently delivering bottled water to the

troops. With the purifier, individual warfighters can now treat locally available water sources and no longer have to rely on transported water or on long supply lines that are prone to interruption and logistics difficulties. Moreover, the potability of the treated water can be guaranteed through the use of MIOX safety indicator strips, protecting U.S. service personnel from waterborne diseases and dehydration.

The Office of Naval Research purchased 1,000 purifiers in 2003, and the Office of the Secretary of Defense purchased an additional 6,500 units. A further order for 3,500 units was recently placed by the U.S. Army. These purifiers are being distributed to U.S. armed forces worldwide. The purifier enables U.S. troops in Iraq, Afghanistan, and other areas of deployment to stay healthy and hydrated.

(Water World - 7/21/04)

ANIMAL MANURE FOULING CHESAPEAKE BAY

Cattle, pigs and chickens within the Chesapeake Bay watershed produce some 44 million tons of manure each year and far too much of it is seeping into the Bay, according to a new report by the Chesapeake Bay Foundation. The report says this pollution must be reined in if efforts to restore the health of the Bay are to succeed.

"The Chesapeake Bay is being choked by excess manure, and despite years of efforts the Bay's water quality is not improving," said CBF President William Baker. "Action to stop the pollution must begin now, not next year or several years from now."

There is broad agreement that the Chesapeake Bay is an ecosystem in serious peril, and despite a slew of agreements and goals to protect and restore the Bay, little has changed in past decade.

The nation's largest estuary continues to suffer from an unnatural influx of nitrogen and phosphorous, which come from sewage wastewater, agricultural runoff, urban runoff and air pollution.

These pollutants feed massive algae blooms that kill fish and Bay grasses, which provide vital habitat for the Bay's famous blue crabs.

The Chesapeake Bay watershed covers more than 64,000 square miles and the foundation says the Bay has more land draining into it relative to its volume of water than any other major body of water in the world.

Animal manure is largest source of agricultural pollution, the single biggest source of nitrogen and phosphorous applied to the land, and the second biggest source of nitrogen that enters the Bay, according to the report.

The study notes that modern intensive animal operations generate massive manure surpluses. This manure is collected and usually spread on field crops.

The excess nitrogen and phosphorous not absorbed by the crop or the soil seep into groundwater and surface water or are released into the air and ultimately end up in the Bay.

The report identifies three "hot spots" within the Bay's watershed where livestock produce far more animal manure than local farmers can use as fertilizer.

The three areas - Virginia's Rockingham County, Pennsylvania's Lancaster County, and the Delmarva Peninsula - together generate 54 percent

TECHNOLOGY UPDATES (CONTINUED)

of the nitrogen from manure in the watershed, even though they constitute only 23 percent of the land area.

The foundation is calling on the six states of the Bay watershed to follow the lead of Pennsylvania, which is holding a summit in October to improve dairy feed efficiency.

It recommends requiring safeguards for the spreading of manure on cropland throughout the watershed, including efforts to limit air releases and surface runoff and to prevent direct manure discharges into surface waters through the use of setbacks and vegetated buffers.

Bay states need to prepare strategies to establish viable alternative uses for manure, the foundation said, should explore ways to fund these efforts, including "user fees" such as additional taxes on meat and dairy products.

"The Bay restoration effort is at a tipping point, on the brink of either success or failure," said Chesapeake Bay Foundation Vice President Theresa Pierno. "Governments, businesses, and citizens must all contribute to reducing nutrient pollution from manure. The Chesapeake Bay region should lead the world in efficiently using manure as a resource for both economic and environmental benefit."

(By J.R. Pegg, *Environment News Service* - 7/30/04)

SHRINKING GLACIERS TRIGGER ALASKAN EARTHQUAKES

Retreating glaciers in southern Alaska may be opening the way for future earthquakes, new research by scientists from NASA and the U.S. Geological Survey (USGS) demonstrates.

The study examined the likelihood of increased earthquake activity in southern Alaska as a result of rapidly melting glaciers. Southern Alaskan glaciers are very sensitive to climate change, said Jeanne Sauber of NASA's Goddard Space Flight Center, Greenbelt, Maryland.

Many glaciers have shrunk or disappeared over the last 100 years. The trend, which appears to be accelerating, seems to be caused by higher temperatures and changes in precipitation, she said.

As glaciers melt they lighten the load on the Earth's crust.

(*Environment News Service* - 8/3/04)

BIODIESEL POPULARITY ON THE RISE

Two more biodiesel facilities have opened up at petroleum loading racks, streamlining the process of distributing biodiesel nationwide, according to the National Biodiesel Board. Peru, Indiana's Countrymark Co-op is the nation's first soy biodiesel rack injection unit with custom-blending capabilities. CHS celebrated extending its location offerings of rack-injected biodiesel with a site in McFarland, Wisconsin.

In April, CHS opened the nation's first facility to offer pre-blended B2 - two percent biodiesel mixed with petroleum diesel - and B5 at the petroleum loading rack at its terminal in McPherson, Kansas.

In the past, petroleum distributors obtained pure biodiesel (B100) and petroleum diesel fuel from separate supply sources and blended themselves. Access to pre-blended biodiesel increases operational efficiencies for the distributor while maintaining integrity of the product, and will signifi-

cantly increase availability to consumers, the National Biodiesel Board points out. Although the majority of biodiesel customers are large fleets at public utility companies, the farm is becoming a market for the fuel. United Soybean Board research shows 31 percent of farmers use biodiesel, with up to 50 percent using it in some states.

(*Environment News Service* - 8/3/04)

EPA ANNOUNCES INITIATIVE TO PROMOTE METHANE RECOVERY

U.S. Environmental Protection Agency (EPA) Administrator Mike Leavitt announced July 28 that the United States will join Australia, India, Italy, Japan, Mexico, and United Kingdom and Ukraine in efforts to develop and promote cooperation on the recovery and use of methane. According to the EPA, the goal of the partnership, known as the Methane to Markets Partnership, will be "to deliver significant energy, safety and environmental benefits through the recovery and use of methane, while reducing global greenhouse gas emissions."

"The Bush Administration welcomes this global partnership, a partnership that has the double benefit of capturing the second most abundant greenhouse gas and turning it to productive use as a clean-burning fuel," Leavitt said.

(*Waste Age Wire* - 8/2/04)

DEEP SEA MAY BE IMPACTED BY CLIMATE CHANGE

Climate change appears to be affecting marine life more than 13,400 feet below the ocean surface, according to scientists at Scripps Institution of Oceanography. In a report published in a recent issue of the journal "Science," the research team reports that population fluctuations of some key deep sea species correlate with food supplies and significant climatic changes, including El Nino and La Nina.

The paper illustrates a stark contrast in the community structure of the 10 most dominant mobile animals before and after the powerful 1997-1998 El Nino/ La Nina event. Animals examined as part of the study include deep-ocean sea cucumbers, urchins and brittle stars.

"Large animals, the kind you would be able to see if you were standing on the bottom of the ocean, may be impacted by climate just the same as animals in shallow water or terrestrial environments," said Henry Ruhl of the Scripps Institution of Oceanography. In 1999, Scripps' researchers showed that seafloor-dwelling animals were experiencing a long-term food shortage.

The new study indicates that food supplies have since increased and that climate, food supplies and the abundance of large animals on the seafloor are linked. The findings are part of a 14-year study of a deep-sea location in the eastern North Pacific Ocean approximately 136 miles west of Point Conception off the central California coast.

(*Environment News Service* - 7/26/04)

HIGH CARBON DIOXIDE LEVELS TURNING OCEANS MORE ACIDIC

By the middle of this century, the amount of carbon dioxide entering the world's oceans will lead to increasing acidity of the upper layers that may harm marine life and disrupt the food chains, scientists at

a UN sponsored intergovernmental symposium have concluded. Such dramatic changes in the carbon dioxide (CO₂) system in open-ocean surface waters have not been observed for more than 20 million years of Earth's history, according to scientists from the world's leading oceanographic institutions. The accumulations of CO₂ will be three times greater in magnitude and 100 times faster than those experienced between ice ages, the marine scientists predict.

This increase in acidity could disrupt marine food chains and alter ocean biogeochemistry in ways that are not yet understood or predictable, according to research presented at the symposium, which was organized by UNESCO's intergovernmental Oceanographic Commission (IOC) and the International Council for Science's Committee on Oceanic Research. According to research led by Christopher Sabine of the National Oceanographic and Atmospheric Administration (NOAA) in the United States the ocean has taken up approximately 120 billion metric tons of carbon generated by human activities since 1800. His research was published in the July 15 issue of the journal "Science."

Carbon dioxide in the Earth's atmosphere is building up as fossil fuels such as coal, oil and gas are burned for power and transportation. The IOC reports that some 20 to 25 million tons of CO₂ are being added to the oceans each day. Some governments such as the United States and Australia have been working towards sequestration of some of the atmospheric carbon dioxide in the ocean.

Ocean strategies for sequestering atmospheric CO₂ involve enhancing the ocean's natural capacity to absorb and store atmospheric CO₂, either by inducing and enhancing the growth of carbon-fixing plants in the surface ocean, or by bypassing the slow, surface-to-deep water transfer of dissolved CO₂ by directly injecting it into the deep ocean, the scientists explain. The absorption of carbon dioxide by the ocean is considered a beneficial process that reduces the concentration of CO₂ in the atmosphere and mitigates its impact on global temperatures. But there is growing concern over the price of this service.

(*Environment News Service* - 7/19/04)

RESEARCHERS WARN OF PCB RISK FROM OLDER CAULKING

Environmental health researchers at Harvard School of Public Health have identified caulking and sealing materials as an unrecognized and possibly widespread source of polychlorinated biphenyl (PCB) contamination in schools and buildings constructed in the 1960s and 1970s.

The researchers say a survey of masonry buildings from that era is necessary to determine where in the United States these materials has been used, and that caulking should be routinely analyzed for PCBs and managed appropriately to reduce potentially significant health risks. The study, published in the July 2004 issue of "Environmental Health Perspectives," is based on an investigation of 24 buildings in the Greater Boston Area.

The investigation revealed that one-third of the buildings contained caulking materials with PCB content exceeding U.S. Environmental Protection Agency standards of 50 parts per million, in some cases containing nearly 1,000 times the standard.

(*Environment News Service* - 7/21/04)

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RT E-MAIL DIRECTORY

LARRY BILY LBILY@RTENV.COM
 TOM BRADY TBRADY@RTENVNJ.COM
 GARY BROWN GBROWN@RTENV.COM
 CHRIS EYRE CEYRE@RTENVNJ.COM
 CRAIG HOPKINS CHOPKINS@RTENVNJ.COM
 PAUL FREDERICK PFREDERICK@RTENV.COM
 KEITH GERBER KGERBER@RTENV.COM

WALTER HUNGARTER WHUNGARTER@RTENV.COM
 PAUL LEDEBUR PLEDEBUR@RTENV.COM
 PETER MALIK PMALIK@RTENV.COM
 PAUL MOSCATELLO PMOSCATELLO@RTENVNJ.COM
 CHRIS ORZECZOWSKI CORZECZOWSKI@RTENV.COM
 KATHY O'CONNOR KOCONNOR@RTENV.COM

VISIT OUR WEBSITE WWW.RTENV.COM



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RT Environmental Services, Inc.
 215 West Church Road
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