

The RT Review

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

• Environmental Engineers & Scientists • Geologists • Remedial Contractors



CALIFORNIA MAY BAN PERC IN DRY CLEANING

Southern California's smog police are moving to bar dry cleaners from using perchloroethylene, a suspected carcinogen. If they succeed, the ban would be the first in the U.S. involving dry-cleaning for the widely used solvent.

The South Coast Air Quality Management District has led the way in pushing clean-air initiatives since its formation in 1977, and other air-quality agencies are watching to see what happens with perc. Water-based house paints became standard in many parts of the country after the agency outlawed oil-based paints in the mid-1990s. "When the AQMD does something, it gets people's attention," says Timothy Malloy, an environmental professor at the University of California at Los Angeles School of Law.

Dry cleaners in the U.S. use about 25% of the 250 million pounds of perc produced annually, making them the second-biggest consumers after the makers of cooling chemicals used in refrigerants.

The AQMD board was expected to adopt the dry-cleaning ban at a Nov. 1 meeting. Under the proposal, dry cleaners won't be able to purchase perc machines after July 1, 2004. The complete ban would take effect in 2019, allowing time for old machines to be phased out.

The California Cleaners Association and the Korean Dry Cleaners and Laundry Association are fiercely opposed to the rule. The groups, whose members include more than half of the 2,200 cleaners in Southern California, say that the AQMD wants them to use alternative technologies that are ineffective, costly and polluting.

A counterproposal has been put forward by the dry cleaning associations and an industry group made up of Dow Chemical Co., PPG Industries Inc. and Vulcan Materials Co., the three U.S. makers of perc. The alternative measure would require dry cleaners to switch to new perc machines that would reduce emissions 40% over the next five years. The AQMD responds that the new machines wouldn't cut emissions enough.

Further fueling the controversy is the fact that more than 70% of the region's dry

(continued on page 3)

CHESTER ON THE RISE!

Chester, PA Brownfields Site is Location
of Irish Memorial Unveiling

An idled former coal fired generating station in Chester, PA was the October site of the unveiling of the Irish Memorial. The former PECO generating station is one focus of Chester's key waterfront redevelopment efforts adjacent to the Commodore Barry Bridge over the Delaware River. Chester's redevelopment efforts will include a new public waterfront park, under the forward leadership of Mayor Dominick Pileggi and Economic Development Director David Sciochetti. The event also marked the first public view, in more than 80 years, of the generating station's Turbine Hall, with its spectacular arched ceilings and brass sconce lighting.

The Chester Power Station was a monument to the production and marketing of electricity in early twentieth-century America. Wartime demand for light and power led Philadelphia Electric to commission the plant in 1916. Conceived by architect John T. Windrim and engineer William C. Eglin, the design featured recent advances in generating technology and industrial construction. Turbine Hall is a 35,000 square foot, 100 foot ceiling, column-less gallery which housed multiple 30,000 kilowatt turbines for the generating plant.

To create "The Wharf at Rivertown," Preferred Real Estate Investments, Inc. (PREI) is upgrading the site as a Brownfields redevelopment project. PREI is renovating the architecturally magnificent structure into 380,000 square feet of Class-A office space.

The Irish Memorial is a monument to commemorate the sesquicentennial of the

Great Starvation; it will be erected at Penns Landing. A Front & Chestnut Streets site for the Memorial has been approved by the Philadelphia Fairmount Park Commission. At Front & Chestnut, elements of the Irish landscape will be incorporated in the park design.

As part of the ceremony, the former Generating Station's newly refurbished exterior was lighted from the Pennsylvania side, affording a spectacular nighttime view of the building from the Commodore Barry Bridge. More than a thousand people attended the exciting event.

RT is Brownfields consultant to the City of Chester and completed environmental due diligence work for the site on behalf of Citizen's Bank. Attending the ceremony on behalf of RT were Gary Brown, Tom Brady and Chris Orzechowski.



Chester Riverfront Redevelopment Site

TABLE OF CONTENTS

Staff and Project News	2
NJ Updates	3
Federal Regulatory Updates	4
PA Updates	10
Technology Updates	11

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

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

Reading

Jade Simmers

E-mail: RTRDG@AOL.COM

2917 Windmill Pond, Suite 1

Sinking Spring, PA 19608

Phone: (610) 927-3300

FAX: (610) 927-1770

Regional Partners

California

Bob Smyth

Phone: (856) 795-8235

FAX: (856) 795-4514

Massachusetts

Andy Irwin

Phone: (508) 653-8007

FAX: (508) 653-8194

Michigan

Michael Carlson

Phone: (248) 585-3800

FAX: (248) 585-8404

North Carolina

Ed Kuhn

Phone: (336) 852-5003

Ohio

Ron Clark

Phone: (330) 375-1390 Ext. 207

Virginia

Edward Berg

Phone: (757) 599-6985

FAX: (757) 599-3501

International

Bermuda

James Burnett-Herkes

Phone: (441) 234-7214

STAFF AND PROJECT NEWS

Chris Orzechowski's King of Prussia Hydrogeology Group continues to work on a series of Act 2 Land Recycling projects, at a growing number of Pennsylvania Brownfield sites. As measured by Act 2 notices in the *Pennsylvania Bulletin*, RT's King of Prussia headquarters, from late July to mid October, had more Act 2 project than any other firm. New Act 2 assignments include addressing a commercial shopping center dry cleaner/perchloroethylene release, and at a former Pennsylvania DEP HSCA site, where radioactive materials were remediated by DEP, but solvent-impacted groundwater remains to be addressed, so the site can be successfully redeveloped. Land recycling sites continue to be one of RT's strongest business areas.

The biggest growing business area for RT relates to indoor air quality and mold investigations. At *RT Review* press time, we were mobilizing for an investigation of an apartment complex, and had received several assignments related to residential and commercial properties as well. In response to this demand, in the coming months, RT is:

- Expanding training of our asbestos and lead-based paint inspectors, to assure that they are qualified to complete indoor air quality work.
- Expanding qualifications of several of our principals, who are already involved in expert witness work.
- Adding internal training for all of our staff who complete Phase I Environmental Site Assessments, to be aware of building material and moisture issues, so that we are prepared to respond as this practice area grows.

In our King of Prussia headquarters, we are also adding additional square footage to our offices, and have ordered more IAQ investigation equipment, so that we are fully prepared to meet this demand, which frequently requires quick mobilization in response to tenant or owner complaints or concerns.

Tom Brady's New Jersey office staff is gearing up for a large scale remedial project, in a former industrial facility, where impacted floor coverings and sumps required quick investigation and remediation, to facilitate Brownfield site redevelopment. The site, located in central New Jersey, had been used for metal products manufacturing for a long number of years.

Gary Brown made presentations at seminars on Residual and Hazardous Waste Regulations, at seminars in Pittsburgh and Harrisburg sponsored by the Pennsylvania Chamber of Business and Industry. In addition, he was an invited panelist at a two-day

manufactured soils conference, held in Harrisburg. At *RT Review* press time, Gary met with Pennsylvania Department of Environmental Protection officials to explore how background concentrations of arsenic could be addressed under the Act 2 Land Recycling Program, as well as the upcoming Safe Fill Regulations, where concentrations exceed Pennsylvania's Direct Contact Standard of 12 mg/kg. Addressing this issue is one of the last major hurdles involved with final revisions of the Safe Fill Regulations by the Pennsylvania Department of Environmental Protection prior to their implementation.

Jade Simmers and Peter Malik were wrapping up work on an Act 2 Land Recycling site near Reading, where piles of residue were left behind from an old incinerator, which operated in the early 1900s. Lead based paint investigation work was also underway at a downtown Philadelphia building being converted for future institutional use, a Lansdale property being converted from office to residential use, and a Norristown building being converted from industrial to commercial use. Although many consultants have let their lead-based paint licensing expire, RT continues to maintain these capabilities and qualifications, which are important to many of our clients in real estate transactions.

Chris Orzechowski attended the recent Tri-State Commercial and Industrial Association of Realtors (ACRES) show, presenting in an exhibit, RT's capabilities serving owners of commercial and industrial real estate industry properties. Additionally, Gary Brown, Chris Orzechowski and Jade Simmers, attended the BOMA/Tri-State Crystal Ball at the Bellevue, where a number of RT's clients, including Michael O'Neill of Preferred Real Estate Investments, and Peggy Gallagher of Peggy Gallagher Commercial Real Estate, received awards for their work helping to make the Philadelphia region strong. Preferred Real Estate Investments accomplishments actually go well past the Philadelphia region, however, as RT has assisted Preferred Real Estate Investments with Brownfields redevelopment projects as far west as Columbus, Ohio, and as far south as Knoxville, Tennessee.

As the winter was approaching, RT's backlog for projects was continuing to build, so our managers are taking all appropriate steps so that we are available for our clients on short notice, providing quick service, which is of key importance on many commercial and industrial real estate and expert witness assignments.

PADEP SAFE FILL PROPOSED REGULATIONS UPDATE

At *RT Review* press time, the following update was available on the DEP Safe Fill regulations:

- The DEP is looking at increasing the historic fill exemption upward from 125 cy.
- The various proposed Permits by Rule will be consolidated; Safe Fill Standards will not apply to permitted commercial dredging of natural sand and gravel aggregate in natural waters.
- Qualifying (clean) demolition materials from industrial operations will now qualify as Safe Fill.
- Act 2 remediated soil going offsite for beneficial use will have to follow Permit by Rule provisions.

There is expected to be an Advance Notice of Final Rulemaking by the end of the year, with a following 60 day final public comment period. The regulations are expected to come into effect during the 2003 construction season.

Also, at *RT Review* press time, a proposed General Beneficial Use Permit to address additional uses of Recycled Asphalt Pavement was under discussion.

Call Gary Brown for more information at 800-725-0593 ext. 34.

INSURANCE COMPANIES RUNNING FROM MOLD COVERAGE

Insurance companies seem to be running for cover over mold coverage. Erin Brockovich, the legal crusader whose life story was made into a movie starring Julia Roberts, has filed a mold lawsuit against the builder of her California mansion. Ed McMahon is seeking \$20 million after mold allegedly took over their home and killing their family dog, Muffin.

A year ago, Farmers Insurance Group settled a \$32 million lawsuit filed by a Texas family that alleged that toxic mold had caused severe health problems. In this case the jury found that the insurer failed to pay for timely repairs needed for a water leak, which allowed mold to grow like a culture plate, making the house uninhabitable.

Since then, mold-related insurance claims in Texas have jumped about 600 percent, and homeowners' premiums have risen 20 percent.

Many insurance companies will cover mold as a result of water damage incidents e.g. a tree falls on your roof causing flooding and subsequent mold growth after the incident.

Another example, if you're on vacation and a plumbing line broke in your house pouring 1,000's of gallons in your home causing significant damage. The repair and replacement for the water line break is not a big deal if it's remediated quickly. If the water is not effectively cleaned up within 24

- 48 hours after the incident the home has the potential to become a huge culture plate.

The resulting water damage on wetted dry-wall could include organisms such as *Stachbotrys chartarum*, a mycotoxin producing fungi or *Pseudomonas (sp.)* an aerobic, oxidase-positive bacillus that can create endotoxin production which is associated with many respiratory ailments and diseases related to water damaged indoor environments" said Dr. Rajiv Sahay, Laboratory Director at Pure Air Control Services.

Insurance companies don't want to cover mold damage today due to the run on mold. They're claiming that they lose money with these mold incidents and they want to limit the mold side of the equation. In fact, recently we have seen many insurance carriers exclude mold from their policy in its entirety.

If you read the fine print in your insurance policy you may find out that you are not covered for mold damage resulting from a water incident. They may cover the water damage incident and resulting loss, but if mold has grown as a result of the incident you may not be covered.

"In the worse case scenario, if mold and bacteria has taken over your home due to the lack of timeliness of the insurance agent, carrier and/or the restoration cleanup company, the cost to fix a home environmentally will be 10 to 100 fold over conventional cleanup methods. These mold remediation projects

require full containment of the areas affected, require trained personnel in OSHA compliance procedures and a regimented remediation protocol in order to successfully remove the contamination," said Mr. Wozniak.

"In addition, performing a limited baseline test before and after remediation is essential to the projects successful completion. If a baseline test is not performed the consumer will never know if the mold was effectively removed. By then it may be too late," Mr. Alan Wozniak, president of Pure Air Services said.

A restoration firm will blow dry water damaged carpets, dry the interstitial wall spaces with blowers, dehumidify the localized area or even rip out water damaged dry-wall, but if this is not done in a timely fashion this water nutrient for mold will allow these microorganisms to proliferate beyond the restoration firms ability and the insured pocketbook. These once dormant microorganisms will now have the ability to thrive allowing a once-insurable water related claim to grow into a mold claim and a health-related claim. This is one for the attorneys to decide.

(by Vik Ahuja, Article from *Seminars a Success*

(http://www.imakenews.com/pureaircontrols/e_article000089029.cfm?x=185562.5613952)

NJ REGULATORY UPDATES

STATE GETS BOOST FROM SUPERFUND

Environmental Protection Agency Administrator Christie Whitman said New Jersey will receive about \$60 million more than expected from the federal government to clean up 10 sites severely contaminated by toxic chemicals.

The amount is nearly double what the state had expected to get from the Superfund cleanup program, after an EPA report earlier this year suggested that 10 sites would receive either insufficient money or none at all.

The former New Jersey governor made the announcement at the site of the former Chemical Insecticide Corp. in Edison, a pesticide manufacturing facility, slated to receive \$19 million.

Besides the Chemical Insecticide site, sites getting federal Superfund money are: the Federal Creosote site in Manville, Somerset County, \$42.4 million; Burnt Fly Bog in Marlboro, Monmouth County, \$20.1 million; Vineland Chemical Co., in Cumberland County, \$14 million; U.S. Radium Corp. in Orange, Essex County, \$8 million; Welsbach & General Gas

Mantle in Camden County, \$47 million; Roebing Steel Co., in Burlington County, \$3.7 million; a Montgomery Township Housing Development site in Somerset County, \$2 million; the Rocky Hill municipal well in Rocky Hill Borough, Somerset County, \$2 million; and the Combe Fill South landfill in Chester Township, Morris County, \$1.2 million.

Six other sites already slated for cleanup will split the remainder of the funds.

(By Anthony S. Twyman, *The Star-Ledger* - 10/02/02)

CALIFORNIA MAY BAN PERC IN DRY CLEANING

(Continued from page 1)

cleaners are mom-and-pop shops owned by immigrants. Korean-Americans own about 50% of the stores. "The AQMD is going after us because they know immigrant dry cleaners can't fight back," says Paul Choe, president of the Korean industry group. The AQMD denies that it's targeting immigrants.

AQMD maintains that perc emissions are a public health threat because dry-cleaning stores are often located near residential areas.

Stricter regulations have reduced perc output as much as 85% over the past decade, it says, but emissions are still too high. According to the agency, 90 in one million people have a probability of contracting cancer from perc emission, well above the AQMD threshold of 25 in one million.

The hurdle regulators must overcome is finding an alternate technology that cleans clothes economically and effectively. After seven years of research, the AQMD says it has found several new technologies that fit the bill. In 1995, the agency began a study to determine whether wet cleaning would do the

job. Employ in Europe since the early 1990s, wet cleaning uses a water-based cleaner that can be flushed down the drain - unlike perc, which must be disposed of as toxic waste.

Although the AQMD is promoting wet cleaning, most cleaners say it's too labor intensive and are expected to switch to machines that use a petroleum-based solvent. The machines emit smog-causing gasses, but the AQMD says that pollution isn't as dangerous as perc. A third option uses a nontoxic liquid silicone base cleaner made by General Electric Co.

(By Queena Sook Kim, *Wall St. Journal* - 10/10/02)

FEDERAL REGULATORY UPDATES

U.S. EPA LINKS DIESEL EXHAUST TO LUNG CANCER

Breathing exhaust fumes from diesel engines may raise a person's risk of developing lung cancer, the U.S. Environmental Protection Agency has concluded.

While noting that there are still uncertainties about the long term effects of exposure to diesel exhaust, the report by the Environmental Protection Agency's (EPA) National Center for Environmental Assessment warns that chronic inhalation of the fumes at levels now present in many urban environments "is likely to pose a lung cancer hazard to humans, as well as damage the lung in other ways depending on exposure."

This assessment examined information regarding the possible health hazards associated with exposure to diesel engine exhaust, which is a mixture of gases and fine particles or soot. Besides recognizing a likely long term cancer risk, the report also found that short term exposures can cause irritation and inflammation in the lungs, and may worsen existing allergies and asthma symptoms.

The assessment's health hazard conclusions are based on exposure to exhaust from diesel engines built prior to the mid-1990s, but the EPA says they apply to most engines now in use, which include many older engines. Diesel engines are now used in large trucks, buses, trains and ships, and in farm and construction equipment.

Early in 2001, the EPA issued landmark standards to clean up dirty diesel trucks and buses, comparable to the advent of the catalytic converter on cars several decades ago. When the standards take full effect in 2007, they are expected to reduce emissions from trucks and buses by more than 90 percent, the equivalent of taking 13 million of the nation's 14 million trucks and buses off the roads.

The Bush administration has backed the standards since taking office, and has defended them in court against industry challenges. In August, the EPA rejected requests by some diesel engine manufacturers to postpone the new standards, allowing penalties against manufacturers who fail to meet the new standards to be penalized beginning as early as October 2002.

But the Bush administration has also proposed loosening some of the restrictions of the new diesel rules, by allowing the diesel engine industry to meet some of the requirements by trading pollution credits, rather than by developing cleaner engines.

As part of a plan to reduce pollution from diesel powered construction and farm equipment, the administration is considering developing an emissions trading program between the truck and the non-road engine sectors. This could enable companies to avoid the tough emission reductions required for trucks and buses, and compromise the cleanup of non-road diesel engines, which release more soot each year than all of the cars, trucks and buses on the roads combined.

In addition to concluding that diesel fumes likely cause lung cancer, the EPA found that diesel exhaust triggers asthma and other respiratory effects, calling the fumes "a chronic respiratory hazard to humans." Based on animal testing and studies of people in jobs with high exposures, the fumes were shown to be carcinogenic, or cancer causing.

The agency did not attempt to quantify the cancer

risk from exposure to diesel emissions, though the report notes that the risk is likely to be higher for people who regularly work with or around diesel engines. But even everyday exposure to background levels of diesel fumes probably puts people at risk, the EPA said.

The impacts of diesel exhaust vary from place to place. In some heavily traveled urban areas, diesel exhaust may account for as much as 25 percent of the airborne microscopic soot, the report notes.

Diesel soot can worsen cardiovascular and respiratory conditions and lead to premature death. Other potentially toxic components of diesel exhaust include carbon monoxide, nitrogen compounds, sulfur compounds, and various hydrocarbons.

Besides the 2007 diesel rules affecting large truck and bus engines, the EPA last year proposed strict new emissions standards for several types of non-road engines, including snowmobiles, all terrain vehicles, yachts and other sources.

And in May 2002, the EPA proposed to change an existing voluntary standard for new ship engines into a federal mandate – a move that environmental groups criticized as doing little to reduce emissions from ships in U.S. ports.

(Excerpts from Article by Cat Lazaroff - Environment News Service - 9/4/02)

NAFTA TRIBUNAL SAYS MORE EVIDENCE NEEDED TO PROVE CALIFORNIA GUILTY IN MTBE CASE

A NAFTA trade tribunal has dealt a tough blow against Methanex Corp. of Canada over a nearly \$1 billion complaint against California's decision to ban the gasoline additive MTBE. The tribunal did, however, leave the door open to the chemical company to try again to seek damages.

The state of California made a decision to ban the gasoline additive in March 1999 when Gov. Gray Davis (D) said it had been determined that MTBE had leaked into some California cities' water supplies, tainting the water with an unpleasant turpentine taste.

The NAFTA panel said it needed more evidence to support Methanex's claim that it was a victim of a political deal between Davis and ArcherDanielsMidland Co., which makes a rival product. Methanex has been seeking relief since June 1999, but now will have to file a new case, though the panel said the company would have to clarify its argument.

Methanex argued the ban was not based on scientific evidence, and that the water pollution could be solved by fixing underground storage tanks at gas stations.

Methanex legal representatives are still assessing what is a long and complicated document, but company officials said they would continue to consult with their attorneys before deciding what to do next. The company has 90 days to decide its next course of action.

California is the largest automobile market in the United States, and other states look to California in setting environmental standards.

MTBE had been introduced in the state to reduce auto air pollution, but concerns were raised that the additive was contaminating drinking water supplies. When the state banned the additive, it dealt a

FEDERAL UPDATES

- Diesel Exhaust & Lung Cancer - Pg. 4
- Peter Malik on MTBE Problems - Pg. 4
- Off Road Vehicle Problems- Pg. 5
- Post Bankruptcy Env. Obligations - Pg. 6
- PM2.5 Nonattainment - Pg. 7
- Underwater Sediment Cap - Pg. 9

financial blow to Methanex because of the large auto market.

The entire foreign trade pact has caught the attention of the Sierra club and Public Citizen, which has cited the case as an example of how trade pact rules allow companies to sue over regulatory actions that affect their investments and undermine the government's ability to protect the environment. The Sierra Club said the decision was confusing, but that was the "nature of the NAFTA tribunal system."

(Water & Wastewater News - 9/2/02)

MTBE has become a growing concern since its inception into the petroleum industry around 1990, due mainly to its physical characteristics. As an ether, MTBE is much more soluble than traditional petroleum constituents, and therefore can migrate greater distances. In addition, MTBE is a very stable compound, and is therefore very difficult to remediate. One of the major problems currently facing the petroleum industry today is that MTBE has never been fully tested to determine its compatibility with the fiberglass components and/or the adhesives used in the tank and piping systems at many of the newer service stations throughout the country. Although I agree with Governor Davis's decision to protect human health and the environment, I think further testing will be required to determine the compatibility of the material before a solution to the problem can be determined.

Peter Malik

BUSH INTRODUCES CLEAR SKIES LEGISLATION

Legislation introduced last summer would implement the Bush administration's market based approach to reducing air pollution from power plants, known as the Clear Skies plan.

The Bush Administration calls the plan an aggressive program that would cut power plant pollution by 70 percent and protect public health. Representatives Billy Tauzin of Louisiana and Joe Barton of Texas, both Republicans, introduced the Clear Skies Act of 2002 and Senator Bob Smith a New Hampshire Republican, introduced a companion bill in the Senate.

"America has made significant progress over the last 30 years in our quest for cleaner air, and we have learned a lot about what approaches work best. Now is the time to put those lessons to use," said President George W. Bush. "Building upon the success of our most effective clean air program, we have crafted a new Clean Air Act for the 21st century - one that will do more to clean up emissions from power plants than ever before."

But environmental and public health groups warn that the Clear Skies plan will cripple current efforts to reduce air pollution, providing far fewer benefits than existing legislation.

President Bush first announced the Clear Skies initiative on February 14. The plan would set mandatory, nationwide emissions caps for three air pollutants - sulfur dioxide (SO₂), nitrogen oxides

FEDERAL REGULATORY UPDATES (CONTINUED)

(NOx), and mercury - with the aim of reducing power plant emissions of these pollutants by 7 percent.

The White House claims the plan would reduce emissions of these three pollutants by 35 million tons of more than full enforcement of the current Clean Air Act.

The U.S. Environmental Protection Agency (EPA) has released data from computer models suggesting that nationwide reductions of SO₂, NO_x and mercury would mean "vast improvements" in air quality in all regions, particularly areas that now suffer the most from power plant pollutants, including the northeast, southeast and midwest. These pollutants are responsible for air quality problems including smog, acid rain and haze, and they also deposit mercury and nitrogen into the nation's waterways.

The EPA estimates that by 2020, the Clear Skies plan would deliver \$96 billion per year in health and visibility benefits, including preventing 12,000 premature death, 10,500 fewer hospitalizations or emergency room visits per year, and 13.5 million fewer days when Americans suffer from minor respiratory symptoms. An alternative estimate also cited by the agency shows just \$11 billion in benefits, including avoiding 7,000 premature deaths each year by 2020.

(By Cat Lazaroff, Environment News Service - 7/31/02)

FEDERAL JUDGE BACKS RARELY SUCCESSFUL 'USEFUL PRODUCT' DEFENSE

A federal judge has accepted the rarely successful "useful product" defense in a Superfund case, ruling that a potentially responsible party (PRP) is not responsible as an arranger under federal Superfund law because recycled zinc it sold to another PRP was a "useful product," rather than a waste.

Attorneys for both parties say the decision marks the first time the useful-product defense has been affirmed for recycled zinc, and the plaintiffs plan to ask the judge to reconsider the decision, citing concerns about the precedent it could set in other cases, including pending litigation against other PRPs at the site.

At issue is whether zinc wastes recovered from a Massachusetts smelter and resold to a Niagara Falls, N.Y., chemical manufacturer constituted waste or a useful raw material. Under federal Superfund law, arranging for treatment or disposal of waste can be used to establish liability.

In the case, *State of New York v. Solvent Chemical Co.*, the plaintiff, Solvent Chemical, had sought to recover cleanup costs from Bay State Smelting Co., charging that surplus zinc it purchased from the company for the production of zinc chloride represents waste under the Superfund law. Attorneys for Solvent Chemical argued that by reprocessing the materials, it allowed Bay State to avoid disposing of them as a waste, and were therefore entitled to recover a portion of the cleanup costs under Section 113(f) of the Comprehensive Environmental Response Compensation & Liability Act (CERCLA).

Bay State countered that it was selling Solvent Chemical useful raw materials, which were exempt from CERCLA liability.

Judge John T. Curtin of the U.S. District Court for the Western District of New York concurred

with that argument, granting Bay State Smelting summary judgment on Aug. 14. In his decision, Curtin notes that Solvent Chemical consistently purchased zinc wastes from a number of sources, and listed it as a raw material in its records. Citing earlier cases, including *Freeman v. Glaxo Wellcome, Inc.*, Curtin writes. "[T]he rule governing arranger liability in this circuit is, '[i]f a party merely sells a product, without additional evidence that the transaction includes an 'arrangement' for the ultimate disposal of a hazardous substance, CERCLA liability [will] not be imposed.'"

Attorneys for both parties say the useful product defense is a tough sell. "There's a lot of gray area," a Solvent Chemical attorney says. "There's not a lot of case law under CERCLA on the issue of product versus waste."

(Superfund Report - 9/2/02)

EPA REASSERTS RIGHT TO REQUIRE AIR MONITORING ON LARGE SOURCES

EPA is following through with its plans to issue a rule affirming the agency's authority to require monitoring by large industrial air pollution sources that is "sufficient" to ensure compliance with the Clean Air Act, according to agency and other sources. The rule will bolster EPA's claim that it has the power to call for the controversial monitoring, which industry has challenged in court, agency sources say.

The rulemaking is the latest chapter in agency efforts to respond to persistent disputes over its authority to augment monitoring requirements for major sources of air pollution in cases where existing emission standards or other rules do not include strong monitoring provisions.

Agency sources say EPA sent a rule to the White House Office of Management & Budget (OMB) that stops short of spelling out a detailed definition of what constitutes acceptable monitoring, but does assert EPA's authority to require such monitoring and to conduct a rulemaking defining the requirements for that monitoring at some point in the future, an agency source says.

An agency source declined to discuss details of the rule except to say that it will emphasize that EPA has the ability to require facilities subject to EPA's Title V operating permits program to ensure that their monitoring is "sufficient" to show compliance with the Clean Air Act. The source adds that the rule will make clear that this authority is separate from other Clean Air Act monitoring authorities.

The source says the rule will also help EPA in a dispute with industry over its monitoring authority. "We believe [the rulemaking at OMB] will bolster our case," referring to an ongoing clash with the Utility Air Regulatory Group (UARG) and Clean Air Implementation Project (CAIP) over the agency's authority to require bolstered monitoring.

(Defense Environment Alert - 9/10/02)

BUSH ORDERS STREAMLINED TRANSPORTATION PROJECT REVIEWS

President George W. Bush issued an executive order in early fall that would speed up federal environmental studies of major transportation projects throughout the nation.

The "Environmental Stewardship and Transportation Infrastructure Project Reviews" executive order orders the department of

Transportation (DOT) to create a list of "high priority transportation infrastructure projects," and to add to the list in the future. Projects on this list, which may include airports, highways, bridges and tunnels, will get expedited federal reviews and permits.

The order also creates a new interagency task force that will "identify and promote policies that can effectively streamline the process required to provide approvals for transportation infrastructure projects, in compliance with applicable law, while maintaining safety, public health and environmental protection."

"Too many transportation projects become mired for too long in the complex web of clearances required by federal and state law," said Transportation Secretary Norman Mineta in a letter to lawmakers and other stakeholders detailing the new order. "This initiative is intended to make our transportation investments more efficient, helping to ease congestion and reduce pollution."

"By working in close concert with governors and transportation leaders, we hope to identify effective procedures for routinely expediting consideration of environmentally sound transportation projects nationwide," Mineta added. "Commonsense streamlining and responsible environmental stewardship motivate our effort in equal measure."

But environmental groups argued that the executive order is aimed primarily at increasing transportation development, and is likely to have negative impacts on environmental protection.

President Bush's executive order would create a Cabinet level task force reporting to the President through the chair of the White House Council on Environmental Quality. The task force would seek to bypass "inefficient review procedures," such as those required by NEPA, for transportation projects deemed critical to the nation's infrastructure, such as highway widening projects and airport expansions.

The order came one day before scheduled hearings before the Senate Environment and Public Works Committee to review efforts to streamline NEPA reviews under the federal Transportation Equity act.

The executive order, "Environmental Stewardship and Transportation Infrastructure Project Reviews," is available at: <http://www.whitehouse.gov/news/>

(By Cat Lazaroff, Environment News Service - 9/23/02)

NEW AIR POLLUTION RULES TARGET OFF ROAD VEHICLES

The EPA is moving forward with new standards that represent the first time that the agency has mandated pollution reductions from this type of non-road engines. When fully implemented in 2012, the standards are expected to prevent the release of more than two million tons of air pollution each year - the equivalent of removing the pollution from more than 32 million cars every year.

"If left unregulated, pollution from these sources will continue to increase," said EPA Administrator Christie Whitman. "When fully implemented, this action will not only protect public health, but will help restore the view of our nation's treasured scenic parks and wilderness areas."

The EPA regulations have no effect on existing engines, and will apply only to new engines produced in 2004 and beyond. The emissions reduc-

FEDERAL REGULATORY UPDATES (CONTINUED)

tions mandated by the rule, and the deadlines for meeting the new requirements, vary by engine type.

For large industrial spark ignition engines, such as those used in forklifts, airport baggage transport vehicles and electric generators, the EPA is adopting standards set by California in 1998. These standards will be effective nationwide in 2004, with stricter requirements effective after 2007, and are aimed mostly at reducing emissions of nitrogen oxides (NOx), a major component of ground level ozone or smog.

For recreational marine diesel engines, used in yachts and other pleasure craft, manufacturers will have to meet standards similar to those issued by the CPA for commercial marine diesel engines. The standards depend on the size of the engines, but beginning in 2006, emissions controls will be phased in to help reduce ozone and particulate matter pollution.

Manufacturers of off road motorcycles and all terrain vehicles will be given new incentives to switch from two stroke engines to cleaner four stroke engines, beginning in 2006. At least 50 percent of a manufacturer's fleet will have to meet reduced emissions levels for hydrocarbons (HC), NOx and carbon monoxide (CO) in 2006, and 100 percent of the fleet must meet the standards in 2007 and beyond.

The agency says its new standards will help the nation avoid about 1,000 premature deaths each year, prevent 1,000 hospital admissions, reduce 23,400 cases of asthma attacks and prevent 200,000 days of lost work.

The EPA projects that the new standards for all vehicles, when fully implemented in 2020, will cut annual HC emissions by 72 percent, reduce NOx emissions by 80 percent, and CO emissions by 1.3 million tons, about a 56 percent reduction.

The new rules will also increase the fuel efficiency of many non-road engines, particularly as manufacturers transition recreational engines to four stroke versions, helping to save more than 800 million gallons of fuel a year, for an economic savings of about \$500 million annually.

Those savings will help balance the expected costs to manufacturers, which the EPA estimates to range from \$50 to \$900 per snowmobile, less than \$100 on average for an ATV, less than \$200 on average for off highway motorcycles, and about \$600 for each recreational marine diesel or Large SI engine.

The EPA's final rule on off road vehicle emissions is available at:

<http://www.epa.gov/otaq/cleanrec.htm>

(By Cat Lazaroff, *Environment News Service* - 9/18/02)

EPA SEEKS TO LIMIT POST-BANKRUPTCY ENVIRONMENTAL OBLIGATIONS

EPA officials are seeking to develop a uniform national policy defining the agency's ability to shield new property buyers from environmental obligations incurred by a bankrupt owner, which may exempt new owners from some civil penalties, according to EPA sources.

An EPA source says the agency is looking to convene a workgroup to tackle the issue, with the goal of developing a policy that outlines what types of assurances the agency can reasonably give new purchasers of properties. "We are reluctant to give blanket waivers" one source says. On the other hand, forgoing civil penalties for some violations

"may make sense," another agency source says.

The agency is seeking to resolve questions about the way EPA handles everything from toxic contamination on a property to the failure or previous owners to conduct adequate environmental reporting or properly remove asbestos from a site, according to an EPA source.

Developing such a policy involves striking a balance between recognizing the distinction between the new owner and the prior owner, and not removing incentives for new owners to exercise "due diligence" before purchasing a property, the source says.

(*Superfund Report* - 8/5/02)

INDUSTRY SAYS NEW EPA SUPERFUND POLICY GUTS VOLUNTARY CLEANUPS

Industry groups are pressing EPA to revise a new Superfund enforcement policy that industry says would discourage cooperative cleanup agreements and gut an otherwise successful program.

The industry concerns come as EPA struggles with ways to encourage polluters to voluntarily pay for their contamination, while avoiding potentially costly litigation by the government. The Superfund trust fund pays for cleanups where polluters cannot be identified, but the fund is expected to run out of money by the end of fiscal year 2003 and the Bush administration has opposed the renewal of an industry tax to replenish the fund. Instead, the administration has been emphasizing that polluters pay for roughly 70 percent of cleanups as an argument against reauthorizing the taxes.

But an industry coalition is preparing a letter to express opposition to the new policy, which the agency's enforcement and Superfund office announced in a June 24 memorandum entitled Response Selection and Enforcement Approach for Superfund Alternative Sites. Industry sources say the agency chose to develop and announce the new policy without consulting with industry, which these sources say denied potentially responsible parties (PRPs) at Superfund sites the opportunity to tell EPA the new policy would in fact discourage rather than encourage industry cooperation on cleanups.

But a high-ranking EPA waste official says the agency has no intention of backing off the new policy in the immediate future, preferring to see how the memo works before making any changes. EPA did, however, recently meet with industry representatives to discuss their concerns about the policy and not ruling out changes in the future.

At issue are cleanups known as National Priorities List (NPL)-equivalents, which the memo calls "Superfund Alternative" sites. NPL-equivalents are sites that PRPs agree to clean up in exchange for the site not being listed on the Superfund NPL. Under the current program, EPA enters into agreements with PRPs specifying that the site must be cleaned up to sufficient federal environmental standards in exchange for avoiding the stigma of NPL listing.

But industry is arguing that the new memo would instead gut the program by laying out requirements so stringent that no PRP will agree to come forth and enter into cooperative arrangements with the agency. Industry had supported the program in the past as a faster, more efficient way to clean up their contaminated sites while avoiding the Superfund program's more onerous bureaucratic requirements and the stigma of the site's inclusion on the Superfund list.

One industry source says the policy "runs directly counter to the program's stated objective of trying to make the program faster, fairer and more efficient."

First, the policy requires PRPs to waive its use of the statute of limitations as a legal defense to Superfund natural resource damages (NRD) claims. Under the Superfund law, PRPs are responsible for both contamination cleanup as well as restoration of natural resources damaged by the contamination. NRD assessments and claims are often completed years after the initial cleanup is done, and can be in the tens to hundreds of millions of dollars at large sites.

"Asking the PRPs at the front end to waive an NRD statute of limitations is really outrageous," the source says. "Before you even know what a claim might be you're waiving your defense to it."

Under the new policy, EPA would also require PRPs to waive any legal right to challenge the agency's decision to place an NPL-equivalent site on the NPL if the cooperative cleanup with industry does not work out. And under the policy, PRPs would not be given credit for any cleanup conducted under the cooperative pact, the source says. The policy requires EPA to "disregard what PRPs have done to date," the source says.

Finally, industry is raising strong concerns that the policy would require PRPs to provide upfront financial assurances for cleanup costs, for instance using a letter of credit. But one industry source says letters of credit cost a significant amount of money, and a \$10 to \$20 million cleanup could result in hundreds of thousands of dollars in financing costs every year a company must obtain the letter.

EPA has no current plans to alter the policy, saying the agency wants to obtain "experience under the guidance" before making changes.

(*Superfund Report* - 8/5/02)

EPA REFUSES TO DELAY DIESEL RULE

The U.S. Environmental Protection Agency has denied requests by manufacturers to delay strict new standards for emissions from diesel engines. In late summer, the agency finalized a rule establishing monetary penalties for any manufacturers unable to meet the new standards in model year 2004 and beyond.

The decision will impact all manufacturers of diesel engines, but it will be particularly hard on six manufacturers who signed a consent decree with the U.S. Environmental Protection Agency (EPA) in 1998, pledging to meet the new standards by October 2002. Some of the manufacturers have been lobbying the Bush administration to delay enforcement of that consent agreement.

In a final rule issued in August 2000, the EPA ordered stricter emissions standards for all diesel vehicles over 8,500 pounds in 2004 with additional diesel standards and test procedures to begin in 2007.

Heavy duty gasoline engines will be required to meet new, more stringent standards starting no later than the 2005 model year. The new standards require gasoline trucks to be 78 percent cleaner and diesel trucks to be more than 40 percent cleaner than today's models.

The second phase of the program will require cleaner diesel fuel and even cleaner engines, and will reduce air pollution from trucks and buses by another 90 percent.

The rule is expected to cut emissions of smog

FEDERAL REGULATORY UPDATES (CONTINUED)

forming nitrogen oxides by 2.4 million tons each year, when the program is fully implemented in 2030. The program is expected to cost manufacturers about \$400 in extra costs per vehicle for heavy duty diesel engines, and less than \$300 per vehicle for heavy duty gasoline vehicles and engines.

The EPA has already certified two engines that meet the consent decree guidelines. However, some manufacturers have asked for an extension over the October 2002 deadline, arguing that they cannot meet the new emissions standards using existing technology.

Caterpillar, a manufacturer of engines for construction equipment and large trucks, went to court, seeking to have the EPA's approval of engines made by other companies invalidated. Caterpillar also prevailed on 33 members of Congress, including Illinois Republican Representative Ray LaHood, to contact the EPA on Caterpillar's behalf.

The American Trucking Association (ATA) had written to President George W. Bush and asked him to delay the October 2002 deadline for the new clean air standards. The industry group also filed a petition demanding that the Bush administration throw out the new 2004 emission standards altogether.

The EPA has now denied requests to delay enforcement of these standards, which were to take place for the six manufacturers in October as planned, and for the rest of the industry with the 2004 model year.

The standards are a first step toward implementing a 2007 diesel rule introduced by the Bush administration.

The 2007 diesel rule would cut sulfur levels in diesel fuel by 97 percent in 2006, and slash soot emissions by 90 percent and nitrogen oxides emissions by 95 percent, with a phase in starting in 2007. This 2007 diesel rule covers all new truck and bus engines, and will eliminate more than 8,300 premature deaths each year, according to the EPA.

The final rule and supporting documents are available at: <http://www.epa.gov/otaq/hd-hwy.htm>

(By Cat Lazaroff, *Environment New Service* - 8/5/02)

IN BLOW TO NAVY, DISTRICT COURT RULES NEPA APPLIES TO OCEANS OFF U.S.

A federal district court in California has ruled that the National Environmental Policy Act (NEPA) applies to proposed Navy activities occurring within 200 nautical miles of U.S. shoreline, known as the Exclusive Economic Zone (EEZ). The ruling strikes a blow against the Bush administration whose officials are seeking to restrict the application of NEPA to within three nautical miles of the U.S. shore.

The U.S. District Court for the Central District of California ruled Sept. 17 in *Natural Resource Defense Council v. U.S. Department of the Navy*, rejecting Navy argument that NEPA does not apply to its activities in the EEZ because of the presumption that U.S. statutes do not have extraterritorial application.

The court found that "it is undisputed that with regard to natural resource conservation and management, the area of concern to which NEPA is directed, the United States does have substantial, if not exclusive, legislative control of the EEZ." The court said that, "Because the United States exercises substantial legislative control of the EEZ in the

area of the environment stemming from its 'sovereign rights' for the purpose of conserving and managing natural resources, the Court finds that NEPA applies to federal actions which may affect the environment in the EEZ."

The court, however, found that the Navy's Littoral Warfare Advanced Development (LWAD) program was not subject to a programmatic environmental analysis under NEPA, as environmentalists had sought. The court concluded that the record failed to support a conclusion that the Navy's reliance on environmental reviews of individual sea tests under the LWAD program was to evade a comprehensive environmental review. "Individual LWAD sea tests will still be subject to NEPA requirements and, absent a showing of arbitrary action by the Navy, the court 'cannot assume that government agencies will not comply with their NEPA obligations in later stages of development,'" the court wrote.

(*Defense Environment Alert* - 9/24/02)

EPA RELEASES DRAFT REPORTING GUIDE FOR WATER DISINFECTION RULES

EPA has released new draft reporting guidance for the water program's Stage 1 Microbial/Disinfection Byproducts rule and the Interim Enhanced Surface Water Treatment rule to help the authorities implementing the rules, such as states and tribes, ensure correct monitoring and reporting from drinking water systems.

The rules are designed to balance the public health risks from microbial contaminants in surface water and the carcinogenic byproducts that form when the chemicals used for disinfection react with organic matter in surface water. The rules call for the use of a combination of water filtration and disinfection to address microbes such as E. Coli and cryptosporidium, which can cause severe illness and death in children, the elderly, and those with compromised immune systems. EPA estimates that the rules will cost water systems \$1 billion to implement, raising the average monthly water bill by a few dollars.

(*Defense Environment Alert* - 9/24/02)

EPA REPORT PAINTS FIRST-TIME PICTURE OF PM2.5 NONATTAINMENT

A new EPA report is providing the first glimpse into the areas of the country that will likely be designated as out of attainment with first-time fine particulate matter (PM2.5) ambient air quality standards. But the report also shows that EPA lacks accurate monitoring data in many parts of the country.

EPA's annual Air Quality Trends brochure for 2001, released after Labor Day, shows that both urban and rural areas across the Northeast, Southeast, Mid-Atlantic, Midwest and California have unhealthy levels of PM2.5, which is considered responsible for cardiovascular and respiratory diseases and premature deaths. According to the results, which sources familiar with the results say could be considered "preliminary designations" 129 counties where 65 million people live are considered out of attainment with the standard, while 182 counties with 50 million residents achieve the standard. But at the same time, 395 counties with 91 million residents lack sufficient data for EPA to make a preliminary assessment.

EPA is expected to complete PM2.5 attainment designations in 2004 or 2005, and areas out of attainment will then have to develop plans to reduce contributors to the pollutant, which include sulfur and nitrogen emissions along with wood combustion.

One EPA source says the data comparing urban and rural areas shows that PM2.5 pollution affects both communities equally. This result differs from other types of pollutants, which tend to concentrate in urban areas.

However, activists are also criticizing the initial findings because of the high number of counties EPA concludes lack sufficient data for the agency to make an assessment. A source with the American Lung Association (ALA) says 395 counties with insufficient data are too many to have this far into the program. EPA must have three years of sufficient data before moving forward with designations.

"There are more counties on [the insufficient data list] than on lists one and two combined," this source says. "It 's not a surprise but it's troubling."

The source adds that data shows PM2.5 is a regional problem, broader than county-by-county, and says activists will press EPA to issue the first-time designations in a broader format than the agency has done for other pollutants, particularly since not all counties even have a monitor for PM2.5.

But, despite the lack of information for huge swaths of the country, overall, the ALA source says, the extent of the picture emerging "indicates a large area of the country is exposed to unhealthy fine particulate matter and we need to get on with the task of addressing the problem...This is a wakeup call for the general public."

(*Defense Environment Alert* - 9/24/02)

RULING MAY BOOST CASE FOR HIGH COURT REVIEW ON RCRA 'OVERFILING'

A federal appeals court recently ruled that EPA has the authority to pursue enforcement actions under the Resource Conservation & Recovery Act (RCRA) even after an authorized state agency has already done so, boosting the likelihood that the U.S. Supreme Court will hear an appeal in a similar case to resolve conflicting opinions among the federal circuits on the issue of "overfiling."

The U.S. Court of Appeals for the 10th Circuit ruled Sept. 4 in *U.S. v. Power Engineering* that EPA has the authority under RCRA to pursue an enforcement action against a facility even after a state agency has taken action for the same violation. The practice is known as overfiling.

Several federal circuit courts are split on the issue. In 1999, the 8th Circuit ruled in *Harmon Industries v. Browner* that EPA lacked the authority to overfile, while the 9th Circuit ruled one year later in *U.S. v. Elias* that the agency could pursue criminal sanctions even after a state agency had already acted. The defendant in *Elias* has asked the U.S. Supreme Court to review the decision to resolve the split, a possibility that has been bolstered by the 10 Circuit's decision in *Power Engineering*, according to industry sources.

At issue is whether EPA's delegation of RCRA authority to state environmental agencies prevents EPA from later pursuing enforcement actions for RCRA violations. Industry officials assert that

FEDERAL REGULATORY UPDATES (CONTINUED)

when EPA delegates environmental programs, like RCRA programs, to states, the state's authority preempts the federal government's ability to act. EPA and some states, however, maintain that the agency retains the right to enforce RCRA in cases where state actions fall short.

(Defense Environment Alert - 9/24/02)

GAO FINDS DOD CLEANUPS NOT COMPLETE AS DECLARED

More than one-third of the remediation projects declared complete by the Department of Defense may in fact require additional remedial action, according to a recent General Accounting Office (GAO) report. The GAO found that the Army Corps of Engineers did not have a sound basis for declaring that 1,468 (38%) of 3,840 formerly used defense sites (FUDS) require no further study or action. For many of the sites, GAO said, there was no evidence that the Corps undertook a systematic search for the presence of any hazards.

(EBJ Weekly News Update - 9/26/02)

FEDERAL COMMISSION DESCRIBES TROUBLED OCEANS

The world's oceans are in trouble, concludes a new, interim report from a federal commission on ocean policies. The midterm report from the congressionally mandated U.S. Commission on Ocean Policy raises more questions than it answers, but it marks the first step toward developing a comprehensive, long range national ocean and coastal policy.

The report, issued by the 16 member commission after months of public meetings and visits to marine facilities around the nation, comes half way through the Commission's planned two year mission to detail the problems facing U.S. ocean resources, and recommend a course of action to protect these resources.

The Commission report cites evidence of "dramatic increases" in population and pollution along the nation's shorelines. These "clearly indicate that the nation's capability to manage our coasts is inadequate and yet more critical today than it was 30 years ago when Congress enacted the Coastal Zone Management Act," the Commission writes.

"Ocean pollution is a growing problem, much of it caused by nonpoint sources, such as farming practices, urban runoff and air pollution deposition," the report states. "The sources are numerous and dispersed while the solutions are elusive and challenging."

Fish stocks are continuing to be depleted, the Commission says, due to the "uneven, and often poor" record of marine fishery management. "Scientific advice has been ignored all too often at the expense of fisheries and the long term sustainability of the fishing industry," the Commission writes.

Many other industries are also being impacted by the health of the world's oceans, the report notes. More than 95 percent of the cargo coming into and out of the United States is moved by ship, a number that is expected to double by the year 2020.

The United States has had trouble outlining and addressing ocean issues because of "jurisdictional and legal confusion and ambiguity" in coastal laws, the report states. "Multiple use problems are exacerbated by growing litigation, regulatory confusion and delay, and uncoordinated policy," the Commission writes. "Individuals who work and

live on the water, from fishers to corporations, face a Byzantine patchwork of federal and state authorities and regulations."

One of the Commission's goals over the next year will be to begin to detail and education, management and investment strategy to help policymakers understand how human actions affect the oceans, and how the oceans may in turn affect human lives.

The recommendations of the U.S. Commission on Ocean Policy have the potential to create important changes in ocean laws and policies. The last congressionally authorized commission to review and make recommendations for a national ocean policy was convened under the Marine Resources and Engineering Development Act of 1966.

The current U.S. Commission on Ocean Policy was created by the Oceans Act of 2000 signed by President Bill Clinton in August 2000. President Bush appointed the 16 members of the Commission last year, based on nominations from Congress and the White House.

So far, the Commission is "optimistic that it can provide answers to many serious challenges," according to the midterm report. "Yet it is concerned whether there is a sufficient sense of national urgency to implement a coordinated and comprehensive national ocean policy to address these challenges."

The Commission says there is a need for "heightened public awareness about the oceans and the consequences of the policy choices the nation faces."

(By Cat Lazaroff, Environment News Service - 9/25/02)

EPA ENVIRONMENTAL FACT SHEET - ANALYTICAL METHODS FOR FUEL OXYGENATES

EPA designed this fact sheet to provide state and federal regulators, laboratory analysts, consultants, and contractors with technical information about appropriate sample collection, handling, and analytical procedures for the suite of common fuel oxygenates. This fact sheet provides a brief background of fuel oxygenates and then discusses then problem, analytical obstacles and how to overcome them, etherhydrolysis and how to prevent it, and recommended protocols to improve the quality of data reported about oxygenates in groundwater after samples. Affected parties are encouraged to immediately begin following the recommendations outlined herein.

An enormous amount of oxygenate data from leaking UST sites has been generated over the past several years, yet there is understandable concern as to whether these data are valid. In general, these concerns derive from two issues: analytical obstacles and etherhydrolysis (particularly MTBE to TBA). Conventional analytical procedures designed for petroleum hydrocarbons (usually BTEX) can also detect MTBE and the other ethers, but they have very poor sensitivity for TBA and the other alcohols. Although there are analytical methods available that are capable of detecting low levels of oxygenates, they are rarely calibrated for ethers (other than MTBE), and in order to be able to analyze for TBA and the other alcohols, sample preparation procedure would have to be modified to increase the sensitivity sufficiently to satisfy regulatory concerns. Under normal environmental conditions ethers do not undergo hydrolysis (breakdown) at significant rates, but it is now recognized that

they may be hydrolyzed during storage and analysis of groundwater samples preserved with acid. Unless steps are taken to prevent hydrolysis of the ethers, these analytical errors can cause errors in risk assessment, that can lead to the implementation of a remedial technology that is not necessary, and they can bias an evaluation of monitored natural attenuation (MNA) in that the time required for MNA to achieve cleanup goals may be significantly underpredicted.

EPA Findings:

It is essential that both a chemical preservative and refrigeration are used to preserve groundwater samples, especially if they are to be analyzed for BTEX compounds. Refrigeration by itself isn't sufficient to effectively retard biodegradation of the sample, but it is effective at inhibiting the chemical deterioration of the sample. Groundwater samples from permanent wells typically contain microorganisms that are capable of degrading BTEX relatively quickly when oxygen is available. Contaminants may persist in groundwater because the plume is devoid of dissolved oxygen, but groundwater samples from wells invariably contain dissolved oxygen, particularly if samples were collected with a bailer. In samples that have not been chemically preserved, BTEX, MTBE and TBA may be completely degraded within two weeks. Most protocols for the preservation groundwater samples call for the addition of a sufficient volume of hydrochloric acid to adjust the pH of the sample to less than 2 and that they be chilled to 4 C. Typically, more acid is added than is needed to preserve the samples and the majority of groundwater samples that have been preserved with acid probably have a pH of between 1 and 2. Ethers present in groundwater samples have been observed to hydrolyze when the samples are preserved with acid to a pH of around 1 and at elevated temperatures. In order for samples to be analyzed for alcohols, the samples must be prepared for analysis at an elevated temperature in order to increase the method sensitivity. However, during this heating step, ether bonds may be hydrolyzed destroying the ether and forming alcohol. As a consequence, ether concentrations originally present in the sample may be underestimated, and the concentration of the hydrolysis products may be overestimated (e.g. TBA formed from the MTBE hydrolysis).

Recommended Protocol:

To properly implement this protocol, groundwater samples should be collected from locations where oxygenates are most likely to occur, based on their chemical and physical behavior. Because oxygenates are more soluble than petroleum hydrocarbons and can be more recalcitrant, oxygenate plumes may be longer than typical BTEX plumes. Groundwater samples should be analyzed for the entire suite of oxygenates (i.e. MTBE, TAE, ETBE, DIPE, TAFE, TAA, AND TBA). Samples should be prepared for analysis preferably using EPA Method 5030 heated to 80 (although either Method 5021 or Method 5032 may be used if the laboratory can demonstrate appropriate performance with these methods). The determinative method (e.g. Method 8260, 8015, or other appropriate method) should be calibrated for the entire suite of oxygenates, and these analytes should be reported for every sample analyzed. With the understanding that ethanol and methanol are potential present at fuel release sites, it is also advisable to have samples analyzed for these alcohol oxygenates using appropriate preparative

FEDERAL REGULATORY UPDATES (CONTINUED)

and determinative methods.

EPA Method 8260 (or another method that provides **confirmatory identification** of all of the fuel oxygenates and can be demonstrated to meet project data quality objectives) is the preferred determinative analytical method for fuel oxygenates (and other contaminants of concern) when the analyses will be used to (1) characterize the three dimensional extent of a contaminant plume, (2) determine whether a site requires active remediation, (3) select an active remedy, (4) design an active remedy, (5) determine whether a site has met site-specific clean up objectives, or (6) determine if it is no longer necessary to continue monitoring a site.

Although EPA Method 8260 is more expensive than methods that do not provide confirmatory identification, the temptation to substitute cheaper method should be resisted. Attempting to save money by relying on such methods may end up having exactly the opposite effect in the long run. After all of the oxygenates (and other contaminants of concern) present at a site have been identified and their concentration and extent determined, future analyses might then be conducted using a less expensive determinative method (e.g. 8015). Situations that might not require confirmatory analysis would include routing long-term performance monitoring as part of a MBA remedy or exposure management strategy.

To prevent constituents in the samples from being chemically and/or biologically degraded during storage and transport, samples should be preserved with both a chemical preservative and refrigeration. To prevent chemical hydrolysis of the ether oxygenates during storage, the samples should be preserved with a base delivered as a salt (TSP), rather than as a strong acid, and also refrigerated. Preservation with TSP will also eliminate the possibility that ethers will be hydrolyzed during sample preparation. Stored samples should be refrigerated at 4 C and analyzed within the holding period.

For information about this Fact Sheet email Hal White (EPA/OUST) at white.hal@epa.gov

(EPA Fact Sheet - 9/16/02)

MTBG and TBA are already significant issues due to the ability of the compounds to migrate at or greater than the groundwater. If the analytical methods currently used are hydrolizing low levels to non-detect the actual effects of an MTBE plume could be significantly larger. Additionally, potable wells may already contain trace levels of MTBE and can not be detected. All of this could significantly drive up remedial costs and investigative costs - not to mention the implications for natural resource damages.

— Tom Brady

CONSUMER SAMPLES IMPLICATE ARSENIC TREATED WOOD

Independent testing of arsenic treated wood shows that the public remains at risk from high levels of arsenic leaching out of pressure treated wood in older decks, playsets and picnic tables, shows a new report based on samples collected by consumers across the nation. The report contradicts reassurances offered earlier in the year by the federal government and the wood products industry.

The results from the largest ever testing program for arsenic treated wood were reported by the Environmental Working Group (EWG). The report, "All Hands on Deck," suggests that the U.S. Environmental Protection Agency (EPA) may have

erred in reassuring the public earlier this year about the safety of existing backyard structures.

Since last November, consumers across the country have tested 263 decks, playsets, and picnic tables, and the arsenic contaminated soil beneath them, via an at cost testing kit sold through EWG's website, <http://www.ewg.org>. The samples were analyzed by the University of North Carolina - Asheville's Environmental Quality Institute.

The results of the consumer testing program show:

- Older decks and playsets, seven to 15 years old, expose people to just as much arsenic on the wood surface as newer structures, less than one year old. The amount of arsenic that testers wiped off a 100 square centimeter area of wood - about the size of an four year old's handprint - often far exceeded what the EPA allows in a glass of water under the Safe Drinking Water Act standard.
- Arsenic in the soil from two of every five backyards or parks tested exceeded the U.S. EPA's Superfund cleanup level of 20 parts per million.
- Commercial wood sealants lose their effectiveness at trapping arsenic after about six months, providing no long term protection from arsenic exposure.

Although most uses of arsenic wood treatments will be phased out by 2004, an estimated 90 percent of existing outdoor structures are made of arsenic treated wood. Arsenic is on the EPA's list of chemicals known to cause cancer in humans.

However, the American Wood Preservers Institute circulated a press release regarding the findings of the Florida Physicians Arsenic Workgroup, a six physician panel appointed last year at the request of the Florida Department of Health to study the use of CCA. The panel concluded that normal use of CCA treated wood in playgrounds is not harmful to children.

"The amount of arsenic that could be absorbed from playground soil and CCA treated wood is not significant compared to natural sources and will not result in detectable arsenic intake," the panel wrote in their report.

The wood products industry said the report supports their assertions that wood treated with CCA is safe for a variety of uses, including playground equipment.

"After a year spent reviewing all aspects of CCA treated wood, this expert panel of doctors came to a simple conclusion - CCA treated wood is safe for use in playsets," said Parker Brugge, executive director of the Treated Wood Council and president of the American Wood Preservers Institute. "Treated wood has been used safely for nearly 70 years. Based on this report, parents can be assured that children can safely play on recreational equipment made of preserved wood."

However, the Florida Physicians Arsenic Workgroup has not released its supporting data, including lists of the medical literature the panel reviewed or the calculations used to determine the safety of CCA treated wood.

Families that remain concerned about the safety of their decks and playsets can lower their arsenic exposures by sealing the wood at least every six months, and washing hands after contacting the wood. They can also replace boards in high traffic areas such as handrails and decking with arsenic free alternatives.

(By Cat Lazaroff, Environment News Service - 9/4/02)

EPA STUDY CONCLUDES THAT NOVEL UNDERWATER SEDIMENT CAP WORKS

EPA is moving closer to approving a first-of-its-kind deep ocean sediment cap at a Superfund site off the coast of California after a technical study found that a smaller-scaled pilot had succeeded.

On Sept. 17, the U.S. Corps of Engineers completed its study of an experimental contaminated sediment pilot at the Palos Verdes, CA shelf site focused on the effectiveness of capping part of the site. The Palos Verdes shelf, located on the ocean floor off the Palos Verdes Peninsula near Los Angeles, is contaminated with more than 1,000 tons of the pesticide DDT as well as polychlorinated biphenyls (PCBs). Both DDT and PCBs are persistent bioaccumulative toxics, meaning they do not degrade in the environment and their concentrations can magnify up the food chain.

The study, which was undertaken for EPA Region IX, determined that the agency's proposal of a large cap over the three to four square mile span of sediments was technically feasible.

The Corps review found, in particular, that a sufficiently thick cap could be created that would isolate the contaminants, would not suffer much disturbance over time and not result in an extensive re-suspension of contaminants in the water. "The pilot shows that we can construct a cap out there...without significant disruption of contaminated sediment," an agency source says.

The agency will also begin to study the costs of the project to determine whether it is financially feasible for the agency to use this remedy. According to one source, the agency is evaluating whether the costs of the remedy, which earlier estimates pegged at as high as \$55 million, is worth the environmental benefits that the cap would produce.

The cost studies will soon begin, the source says, and should be completed by next summer. At that time the agency will decide whether or not to expand the cap, the sources says.

(Superfund Report - 9/30/02)

EPA GUIDE ATTEMPTS TO CLARIFY KEY TECHNICAL ERROR IN ARSENIC RULE

A new EPA guidance appears to clarify a technical error in the agency's final drinking water standard for arsenic that state officials have warned could allow states to promulgate standards weaker than the 10 parts per billion (ppb) limit the agency originally intended.

While EPA intended to promulgate a drinking water standard for arsenic of 10 ppb, or 0.010 mg/L, the regulation the agency published in the Federal Register in January 2001 listed the standard as being 0.01 mg/L.

The error was significant because as many as half of the drinking water systems affected by the arsenic rule have waters that fall between 10 and 15 ppb, and the error may have allowed them to retain the weaker standard.

In the final version of the arsenic implementation guidance released Sept. 20, agency officials present the standard as 0.010 mg/L.

(Defense Environment Alert - 10/8/02)

EPA SEEKING ALTERNATIVES TO PROSPECTIVE PURCHASER AGREEMENTS

In an effort to ensure that Brownfields redevelopment continues, EPA is experimenting with new ways of assuring developers that properties will not increase their exposure to liability after an agency

FEDERAL REGULATORY UPDATES (CONTINUED)

decision to restrict the issuance of legal guarantees.

EPA recently decided to curtail its issuance of Prospective Purchaser Agreements (PPAs) because the agency has determined that language in recently signed Brownfields liability relief law is sufficient to protect purchasers of contaminated property from liability. A PPA is an agreement between EPA and a potential purchaser of property under which EPA promises not to sue the purchaser for existing contamination in exchange for the purchaser's agreement to provide "consideration" to perform cleanup work or provide funding for cleanup.

Industry officials have criticized the move as counterproductive, arguing that without PPAs there will be greater uncertainty about developer liability, leading to fewer brownfields redevelopments. These sources argue that industry is concerned about the meaning of the new statutory language and until a track record is developed on the implementation of the law purchasers will be hesitant to buy contaminated properties. "The bottom line is that there is a lot of concern in the private sector [about] the affirmative obligations for prospective purchasers," an industry attorney says.

Agency officials say they understand industry's concerns. "It's gonna take time" for industry to gain confidence in the new law, an EPA source says. "We have to build a track record." but the source says there are a variety of tools at their disposal to ensure certainty until industry officials are comfortable with the new law. According to the source, different regions will use different means to ensure certainty, ranging from comfort letters to issuing memorandum of understanding assuring developers of no further liability.

One of these approaches is the "ready to reuse" certificate program that EPA has been developing with the Oklahoma Department of Environmental Quality. The program is "one method that may

work" to provide certainty, the source says.

According to an EPA release on the program, the certificate is issued when "contamination at a property has been characterized and cleaned up to a standard that is safe for its intended use." Region VI Administrator Larry Starfield added that the program will provide "necessary assurances to help encourage developers to reuse" brownfields. Region VI issued its first certificate July 2 to Sheffield Steel Corp., a steel manufacturing plant in Sand Springs, OK.

But an attorney representing developers says the certification program and EPA's other efforts to take the place of PPAs is not enough. These efforts "quite frankly do not give the private sector much comfort at all," the source says. The central difference between PPAs and these other efforts is that the PPAs provided a legally binding limit on liability, while these other efforts provide no liability protection.

Instead, developers are waiting for the agency to issue guidance documents for the new law. "People will be proceeding cautiously until guidance is on the table," the sources says. EPA officials have announced that the agency will begin to issue draft guidance documents shortly.

(Superfund Report - 7/22/02)

REPORT FIND BIOSOLID STANDARDS NEED NEW SCIENTIFIC BASIS

The U.S. Environmental Protection Agency's standards that govern using treated sewage sludge on soil are based on outdated science, says a new report from the National Academies' National Research Council (NRC).

The agency should update its standards using improved methods for assessing health risks, and should further study whether treated sewage sludge

causes health problems for workers who apply it to land and for residents who live nearby, added the committee that wrote the report. More rigorous enforcement of the standards is needed as well.

Although it called for further study of the effect of biosolids land application, the report found that there is "no documented scientific evidence that the Part 503 rule has failed to protect public health." Industry groups focused on that finding when commenting on the report.

According to Bob Hite, chairman of the National Biosolids Partnership, "We believe the NAS biosolids report adds to a collection of studies that show there is no scientific evidence that biosolids regulations have failed to protect public health, and reflects a general agreement concerning a need to continue with scientific research on biosolids."

About 5.6 million tons of sewage sludge are used or disposed of each year in the United States, and 60 percent of that is used for land application.

Methods for assessing the health risks posed by exposure to chemicals have evolved substantially since the 1993 biosolids rule was established. In addition, EPA used an unreliable 1988 survey to identify hazardous chemicals in sewage sludge when it set the standards, and other chemicals have since been found to be of potential concern, according to the NRC report.

A new survey and revised risk assessments are needed, the committee said. The revised risk assessments also should reflect the potential for regional variations in climate, water flow, and biosolids characteristics, and should be designed to protect individuals against realistic maximum exposures.

The report *Biosolids Applied to Land: Advancing Standards and Practices* is available on the Internet at <http://www.nap.edu>.

(Waterworld - 9/02)

PA REGULATORY UPDATES

DEP REPORTS DROP IN GENERATION OF HAZARDOUS WASTE PRIORITY CHEMICALS

DEP's Hazardous Waste Minimization Program has been focusing its efforts on reducing the generation of hazardous waste with emphasis on the most persistent, toxic and bioaccumulative chemical (Priority Chemicals). The program has been using the Toxic Release Inventory (TRI) data to track the generation of these Priority Chemicals and focus outreach efforts.

Using the year 2000 TRI database, the total generation of Priority Chemicals decreased by 4.3 percent compared to year 1999 data. In 1999, Priority chemicals decreased by 20 percent when compared to the 1998 data. The decrease in 2000 was achieved despite lower reporting thresholds for several priority chemicals (lead, mercury and dioxin) in the year 2000. The lower thresholds increased the number of priority chemical generating facilities by 47 percent. The Waste Minimization Program is currently focusing on the largest producers of these chemicals, and will be conducting non-compliance site visits at these facilities with the participation of personnel from the Office of Pollution Prevention and Compliance Assistance.

For more information, contact Glenn Mitzel, Waste Minimization Coordinator Bureau of Land Recycling and Waste Management, at 717-787-6239 or email gmitzel@state.pa.us.

(PA DEP Update - 8/2/02)

DEP PROPOSES NEW TECHNICAL GUIDANCE ON PREPAREDNESS, PREVENTION AND CONTINGENCY PLANS FOR GENERATORS AND BURNERS OF WASTE OIL

The Pennsylvania Department of Environmental Protection has proposed a requirement that all those who store waste oil, operate waste oil burners, be required to develop Preparedness, Prevention and Contingency Plans. These requirements come on the heels of changing regulations, at the federal level for Spill Prevention Control and Countermeasure Plans. The new guidance, expected to be effective by December 14, 2002, offers a reduced format PPC Plan as compared to that required for other types of facilities.

All of those handling waste oil or generating waste oil are required to have a PPC Plan; there is no minimum storage size limitation. This basically means that all of those persons completing automotive or truck maintenance activities involving oil draining, should prepare a Preparedness, Prevention and Contingency Plan, in the near future. DEP points out that owners and operators of facilities that store products which may be of concern in the event of an emergency, including gasoline, paint thinners and solvents, may want to include these products in the PPC Plan for their facility as well.

PA UPDATES

- Drop in Hazardous Waste - Pg. 10
- DEP's New Waste Oil PP Requirements - Pg. 10
- DEP's Comprehensive Stormwater Policy - Pg. 14

RT has in depth experience at preparing PPC Plans as well as SPCC Plans, for a wide variety of facilities throughout Pennsylvania. If you need assistance with preparing a plan for your facility, call Larry Bily at 610-265-1510, ext. 36.

AVAILABILITY OF STORMWATER GENERAL PERMIT EXTENDED

DEP published a notice on the October 5th Pennsylvania Bulletin of an extension of the availability of the General Permit for Stormwater Discharges Associated with Construction Activities (PAG-2).

The last general permit expired at midnight on October 9th. The extension is for three months; effective Oct. 10. The DEP is extending the availability of this permit in order to adequately address public comments received regarding the renewal of PAG-2, the draft PAG-14 permit, and the DEP's Comprehensive Stormwater Management Policy.

The existing PAG-2 permit documents will continue *continued on page 14*

TECHNOLOGY UPDATES

NATION'S DROUGHT MORE PRONOUNCED BY SPRAWL DEVELOPMENT

Sprawl development is making the nation's drought even more painful by impairing the landscape's ability to recharge aquifers and surface waters, according to a new report released by American Rivers, the Natural Resources Defense Council and Smart Growth America. Nationwide, paved-over land sends billions of gallons of water into streams and rivers as polluted runoff, rather than into the soil to replenish groundwater. This groundbreaking report, *Paving our Way to Water Shortages: How Sprawl Aggravates Drought*, estimates the extent of this phenomenon in 18 rapidly growing cities. The authors urge communities to adopt "smart growth" policies to reign in sprawl and protect water supplies and watersheds into the future.

"Sprawl development is literally sending billions of gallons of badly needed water down the drain each year...the storm drain," said Betsy Otto, senior director for watershed programs at American Rivers. "Sprawl hasn't caused this year's drought, but sprawl is making water supply problems worse in many cities."

The authors estimate that in Atlanta, the nation's most rapidly sprawling metropolitan area, recent sprawl development sends an additional 57 billion to 133 billion gallons of polluted runoff pour into streams and rivers each year. This water would have otherwise filtered through the soil to recharge aquifers and provide underground flows to rivers, streams and lakes. The report gives the first estimates of groundwater losses due to sprawl development in the 1980s and 1990s.

(*Water & Wastewater News* - 9/2/02)

GLOBAL WARMING THREATENS OCEAN ECOSYSTEMS

Climate change will create increasing challenges to U.S. coastal and marine ecosystems over the next century, warns a new report from the Pew Center on Global Climate Change. Temperature changes, altered patterns of rain and snowfall, and rising sea level are expected to upset the delicate balance of fragile coastal ecosystems.

The Earth's climate is expected to change much faster than normal over the coming decades due to the warming influence of human caused increases in greenhouse gas emissions. The world's oceans, which cover almost 70 percent of the planet's surface, are likely to show the effects of climate change in dramatic and devastating ways, the Pew center warns.

"Such high rates of change will probably result in local if not total extinction of some species, the alteration of species distributions in ways that may lead to major changes in their interactions with other species, and modifications in the flow of energy and cycling of materials within ecosystems," warns the new report, titled "Coastal and Marine Ecosystems and Global Climate Change: Potential Effects on U.S. Resources."

"Climate change could likely be the 'sleepier issue' that pushes our already stressed and fragile coastal and marine ecosystems over the edge," said Eileen Claussen, president of the Pew Center on Global Climate Change. "Particularly vulnerable are coastal and shallow water areas already stressed by human activity, such as estuaries and coral reefs.

The situation is analogous to that faced by a human whose immune system is compromised and who may succumb to a disease that would not threaten a healthy person."

The report was prepared for the Pew Center by researchers from three universities, the National Center for Atmospheric Research and the International Pacific Halibut Commission. Based on current projections for climate change in the next century, the report explores the hazards that climate change may pose to marine life.

The full report is available at: http://www.pewclimate.org/projects/index_environment.cfm

(By Cat Lazaroff, *Environment New Service* - 8/15/02)

SCIENTISTS MAP GLOBAL AIR POLLUTION

Scientists from the United States and France are beginning to tease out how much of the fine particle pollution in the atmosphere is caused by humans, and how much comes from natural sources. The precise global maps produced by the researchers could help clarify the role that human pollution plays in the world's weather and climate.

The researchers are using precise new satellite measurements and sophisticated new computer models to produce global maps of different types of air pollutants. In a review paper in the current issue of the journal "Nature," the team reports that these global maps are an important breakthrough in the science of determining how much aerosol pollution comes from human activities.

"Natural aerosols like salt particles from sea spray are typically widespread over larger areas and not particularly concentrated downwind of urban areas," noted atmospheric scientist Yoram Kaufman, from the National Aeronautics and Space Administration's (NASA) Goddard Space Flight Center. "Or, they are particularly concentrated downwind of obviously natural sources, such as the streams of dust originating from the Sahara Desert."

But looking at locations of aerosol plumes is not enough to ensure that researchers can precisely map human sources of air pollution. Another clue to a plume's origin can be found in the size of the aerosol particles it carries.

Examining global satellite images in concert with global scale models and globally distributed ground based pollution measurements gives scientists the best tools they have ever had to estimate the effects of aerosols on climate and weather patterns around the world. The authors say the next step is to quantify more precisely the roles human aerosol pollution plays in Earth's weather and climate systems.

NASA plans to further expand global aerosol research with the launch of satellite based light imaging radars, known as lidars, that send bursts of light to Earth and, like a radar signal, provide a measure of the altitude and vertical structure of aerosol plumes and clouds.

For more information on MODIS research, visit: <http://modis.gsfc.nasa.gov>

(*Environment News Service (ENS)* - 9/18/02)

STATE OF THE NATION'S ECOSYSTEMS: DATA MISSING

There are major gaps in what is known about the nation's lands, waters and living resources, a new

TECHNOLOGY UPDATES

- Drought Pronounced by Sprawl? - Pg. 11
- No Organochlorines/Breast Cancer Link - Pg. 13
- Climate Perils - Bankrupt Insurers? - Pg. 14

environmental study concludes. The report, based on five years of intensive research, proposes periodic reporting on a list of key ecological indicators that could aid in future environmental and land management policy decision.

In 1995, the Clinton administration asked the H. John Heinz III Center for Science, Economics and the Environment - a think tank that is not affiliated with either environmental or industry groups - to compile existing data to help assess the health of the nation's environment. The 270 page report released in September concludes that almost 50 percent of the information needed to make environmental policy decisions is missing or inadequate.

Almost 150 experts from government, business, environmental organizations and academia collaborated to select indicators of the nation's environmental health, and report on the best available data on environmental conditions and trends.

The resulting report, "The State of the Nation's Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States," presents a compelling argument of reporting environmental indicators, much as key data are reported to help gauge the state of the national economy.

The report provides indicators for the nation as a whole and for its coasts and oceans, forests, farmlands, fresh waters, grasslands and shrublands, and urban and suburban areas. For each of these systems, the study reports on 10 key characteristics of ecosystems that should be tracked over time, including their chemical and physical conditions.

Where the data are available, the report also describes current environmental conditions and trends for each of these indicators. But for 45 of the 103 indicators presented, the Heinz researchers found inadequate data to support nationwide conclusions about ecological health. And the researchers were able to discuss current trends for just 31 of the indicators.

The researchers cited a simple lack of data for 31 of the 45 indicators for which they were not able to report status or trends. But for 14 indicators, the researchers found a fundamental lack of agreement "on how the relevant ecosystem characteristic can be measured most meaningfully and effectively."

Findings of the report include:

1. Almost all streams, groundwater, sediments (stream and estuarine), and freshwater fish sampled have at least one chemical contaminant at detectable levels, the report finds.
2. The report finds that the amount of cropland that is vulnerable to water erosion has dropped by a third since 1982, to about 89 million acres.
3. Marine fish landings grew by about 10 percent from the mid-1970s to the mid-1990s, but have since declined back to late 1970 levels.

Despite the gaps in data discovered by the Heinz researchers, they note that consistent future tracking of the indicators defined in the report "would produce a much more useful picture of the state of the nation's ecosystems than has ever been available."

The report was commissioned by the White House Office of Science and Technology Policy, which also called for annual updates to the project

TECHNOLOGY UPDATES (CONTINUED)

and a revised report every five years. The nonprofit H. John Heinz III Center for Science, Economics and the Environment, named in honor of the late Senator John Heinz, was established in 1995 with a mandate of improving the scientific and economic foundation for environmental policy.

The "State of the Nation's Ecosystems" is available in full at: <http://www.heinzctr.org/ecosystems>
(by Cat Lazaroff, *Environment News Service* - 9/27/02)

SCHOOL MOLD CASE MOVING INTO FEDERAL COURT

The Bethlehem Area School District will have its day in court to try to win back \$1.5 million it spent when a leaking roof caused mold and forced children out of Freemansburg Elementary School for nearly a year, a district official said.

It has been two years since mold was found growing in the 501 Monroe St. school in the summer of 2000.

The school district paid most of the costs associated with ridding the school of mold, relocating students to another building for the 2000-01 academic year, replacing contaminated books and furniture and restoring Freemansburg for the children's return.

Bethlehem Areas has sued at least six companies, and none has offered to settle, said Stanley Majewski, director of business affairs.

Getting a May 19 hearing in federal court was "the first real progress we've made in getting our money back," Majewski told school board directors Monday at their Finance Committee meeting. "It's been a slow process, one that could take several more years to complete."

In April, the school district filed a lawsuit in Northampton County Court against White Brothers Construction Inc., of Reading, which was awarded a \$325,000 contract to replace portions of Freemansburg's roof. The suit also named two companies that received subcontracting work from White Brothers - Joseph Miorelli & Co. of Hazelton and Shippe Mechanical Inc. of Bristol.

The school district filed another lawsuit in June, suing Nautilus Insurance Co., of Scottsdale, Ariz., Scottsdale Insurance Co., of Scottsdale and Commonwealth Insurance Co. of Bala Cynwyd. The complaint said the three companies were White Brothers' insurers and failed to pay claims for the damages to Freemansburg Elementary.

Majewski said he was pleased that the case has been brought to federal court because it opens the possibility that the school district can win punitive damages.

Freemansburg students missed the first few days of school when officials delayed the opening because tests found a small amount of *stachybotrys chartarum* mold, a fungus that can cause rashes and respiratory problems.

(By Genevieve Marshall, *The Morning Call* - 9/17/02)

LAND USE RIVALS GREENHOUSE GASES IN CHANGING CLIMATE

Changes in land use may rival greenhouse gases in their contributions to global warming, suggests a new international study. The report details the effects of urban sprawl, deforestation and agricultural practices on regional surface temperatures, rainfall patterns and atmospheric circulation,

arguing that these land surface changes may have more impact on climate than greenhouse gas emissions.

Most climate change studies have focused on how heat trapping gases like carbon dioxide (CO₂), released by human activities such as the burning of fossil fuels, are warming the global climate. However, other human activities which cause changes in land surfaces and vegetation may be even more important, say the authors of a recent study.

"Our work suggests that the impacts of human caused landcover changes on climate are at least as important, and quite possibly more important than those of carbon dioxide," said Roger Pielke, an atmospheric scientist at Colorado State University.

"Through landcover changes over the last 300 years, we may have already altered the climate more than would occur associated with the radiative effect of a doubling of carbon dioxide," added Pielke, who is lead author of the new study appearing in the August 2002 issue of "Philosophical Transactions: Mathematical, Physical & Engineering Sciences," a journal of The Royal Society of London.

Forests may influence the climate in more complicated ways than previously thought, the authors found. For example, in regions with heavy snowfall, reforestation or the growth of new forests would cause the land to reflect less sunlight, meaning that more heat would be absorbed. This could result in a net warming effect, even though the new trees would remove CO₂ from the atmosphere through photosynthesis during the growing season.

Reforestation could increase also transpiration in an area, putting more water vapor in the air. Water vapor in the troposphere, the lowest, densest part of the earth's atmosphere, is the biggest contributor to greenhouse gas warming, the researchers said.

Local land surface changes can also influence the atmosphere in far reaching ways, much like regional warming of tropical eastern and central Pacific Ocean waters know as El Niño. El Niño events create moist rising air, thunderstorms and cumulus clouds, which in turn alter atmospheric circulations that export heat, moisture, and energy to higher latitudes.

Pielke and his colleagues propose a new method for comparing different, human influenced agents of a climate change in terms of the way that they redistribute heat over land and in the atmosphere.

This heat redistribution would be stated in terms of watts per meter squared, or the amount of square meter area. For example, if a flashlight generated heat of one watt that covers a square meter, then the heat energy emitted would be one watt per meter squared.

Using a single unit of measurement may open the door to future work that more accurately represent human caused climate change, the authors said.

The study was funded by grants from the U.S. National Science Foundation and the National Aeronautics and Space Administration.

(By Cat Lazaroff, *Environment New Service* - 10/3/02)

SMOKIES ARE NO. 1 AMONG PARKS IN POLLUTION

The Great Smoky Mountains is the nation's most polluted national park, with air quality rivaling that of Los Angeles, environmental groups said in a survey.

The recent survey was released the same day a national Park Service study found air quality has improved or at least stayed the same in more than half of 32 monitored parks since 1990.

"In most parks, air quality exceeds standards set by the EPA to protect public health and welfare," park director Fran Mainsella said. "Our findings also show that some parks occasionally experience pristine air quality conditions, unaffected by air pollution."

Ozone levels in the Smokies violated federal health standards more than 175 times since 1998, threatening the health of hikers and damaging 30 species of plants, the environmental groups said.

The report used a plant ozone-exposure standard of 60 parts per billion for comparison purposes. Ozone exposure numbers were computed by adding the concentrations for all hours experiencing 60 parts per billion or greater for April through October.

According to the study, the Smokies' average annual ozone exposure of 133,200 ppb hours exceeded that found in Atlanta, Knoxville, Tenn., and Charlotte, N.C. Only one city in the study's analysis, Los Angeles, with more than 180,000 ppb hours, exceeded the Smokies.

The Park Service, meanwhile, said 22 of 28 parks monitored for visibility showed improvement over the decade and 14 of 29 parks monitored for acid rain showed a decrease in both sulfate and nitrate levels during the period.

As for ground-level ozone, improvement was seen in eight of 32 monitored parks and 16 others showed no further degradation.

(By Duncan Mansfield, *Associated Press*, *Philadelphia Inquirer* - 10/6/02)

SOOT LINKED TO FLOODING, DROUGHT, GLOBAL WARMING

Large amounts of black carbon or soot particles and other pollutants are causing changes in precipitation and temperatures over China, a new study suggests. The study's authors say soot pollution may be at least partially responsible for the tendency toward increased floods and droughts in Asian regions over the last several decades.

In a paper appearing in a recent issue of the journal "Science," the researchers explained that black carbon can affect regional climate by absorbing sunlight, heating the air, and altering large scale atmospheric circulation and the hydrologic cycle. The study's U.S. authors include Surabi Menon of the National Aeronautics and Space Administration (NASA) and Columbia University, and her colleague James Hansen of NASA's Goddard Institute for Space Studies in New York.

Using the NASA Goddard climate computer model and aerosol data from 46 ground stations in China, Menon and Hansen conducted four sets of computer simulations to monitor the effects of black carbon on the hydrologic cycle over China and India.

Out of the four scenarios, the effect of increased amounts of soot over southern China created a "clear tendency" toward the flooding that has been occurring in southern China, and the increasing drought over northern China that has persisted over the last several years.

China and India both produce large amounts of soot pollution because much of their cooking and heating is done with wood, agricultural slash, cow

TECHNOLOGY UPDATES (CONTINUED)

dung and coal, at a low temperature that does not allow for complete combustion.

(By Cat Lazaroff, *Environment News Service* - 9/30/02)

ALL U.S. CORAL REEFS FACE HUMAN THREATS

Every U.S. coral reef system is suffering from both human and natural disturbances, warns a new report from the National Oceanic and Atmospheric Administration. The first national assessment of the condition of U.S. coral reefs links development, pollution and destructive fishing practices with the decline reefs in U.S. waters and around the globe.

The 256 page report, "The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States," identifies the pressures that pose increasing risks to the nation's estimated 7,607 square miles of coral reefs, particularly in hot spots located near population centers. The report also assesses the health of reef resources, ranks threats in 13 geographic areas, and details ongoing efforts to mitigate damage to coral reefs.

Raising public awareness and stimulating official action on coral reefs is crucial, the reports authors say, because an estimated 27 percent of the world's shallow water coral reefs may already be beyond recovery. An estimated 66 percent are now considered to be severely degraded.

Thirty-eight coral reef experts and 79 expert contributors collaborated on the report, led by the National Oceanic and Atmospheric Administration's (NOAA) Ocean Service. They found that while some U.S. reefs are in good to excellent health, all are already at risk from human activities.

"The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States" is available online at:

http://www.nccos.noaa.gov/documents/coral_notice.pdf

The "National Coral Reef Strategy" is available on the Coral Reef Information System website at:

<http://www.coris.noaa.gov/>

(By Cat Lazaroff, *Environment News Service* - 10/1/02)

EPA APPROVES LATEST EDITION OF STANDARD METHODS

EPA has approved the 20th edition of Standard Method for the Examination of Water and Wastewater, a guide to water and wastewater analysis.

(*Water & Wastewater Products E-News* - 9/30/02)

MERCURY LEVELS IN FISH GET NEW ATTENTION

Poisonous mercury is on dinner plates everywhere – in sea bass served in fancy restaurants, in tuna casserole ladled out at home.

Too much mercury damages the nervous system, especially the brain. Too much in pregnant and breast-feeding women, or those who may become pregnant, can hurt their babies – adversely affecting children's intelligence, coordination and memory. Children under 7 are vulnerable too, because their young brains are still forming.

But how much is too much? And are adults at risk, as well?

Rising public concern about those questions, which have been in the background for years, is prompting public health officials to look more seriously at mercury and at its effects.

After a four-year moratorium, the U.S. Food and Drug Administration is set to decide whether to resume measuring mercury in fish.

State and federal officials disagree over what constitutes a safe exposure level. There are no long-term studies on Americans.

There are those who say mercury in seafood is a menace, perhaps the biggest threat to childhood development since scientists discovered that lead exposure lowers IQ. They say emissions from oil- and coal-powered plants are spreading this poison to an alarming degree.

Others say the threat is overblown – that fish, loaded with protein and heart-healthy Omega 3 fatty acids, is so good for you it outweighs any concern. The fact is, no one knows.

The Centers for Disease Control and Prevention says one in 10 women have potentially dangerous levels of mercury in their blood.

The latest FDA guidelines recommend that pregnant women and small children eat no more than two meals of fish each week.

The recommendation is based on a study conducted in the Faroe Islands, a remote archipelago in the North Atlantic between Norway and Iceland.

The Faroes, researchers from Boston University, found that children whose mothers' diets featured whale meat or blubber during pregnancy had lower scores on a battery of tests designed to measure intelligence, coordination, memory and similar skills.

There are some problems with the Faroes study:

- It focuses on exposure of fetuses and embryos to mercury, while the Food and Drug Administration uses it to gauge safety limits for adults.
- The FDA guidelines use the Faroes study to establish the number of fish meals any one person could safely eat. In calculating that figure, the agency did not take into account that fish from some waters have far more mercury in them than the average serving of commercial seafood.
- A second study – conducted in the Seychelles islands in the Indian Ocean off Africa – found no ill effects from elevated exposure to mercury in fish during fetal development.

Since the publication in 1998, the University of Rochester scientists who conducted the Seychelles study have struggled to explain why their results are so different from those of the Boston researchers. Maybe the Faroes results were skewed because of PCBs in whale blubber (The researchers deny it).

It is also possible that high fish consumption in the Seychelles, while exposing children to relatively high levels of mercury, also improves brain development. That would resonate with the arguments of many in the fish industry.

What is beyond dispute is this: Mercury warnings for U.S. lakes, rivers and coastal regions increased 115 percent from 1993 to 2001. There are almost 2,000 mercury-in-fish warnings on various water bodies in 44 states.

If there is a consensus among scientists, it is that the most vulnerable population by far is the very young, especially still-developing fetuses. Like lead, mercury can wreak havoc on the rapidly multiplying cells of a growing brain, leading later in life to decreased intelligence, lowered coordination and impaired hearing.

(By Sharon L. Crenson & Martha Mendoza, *Courier-Post* – 10/13/02)

NO LINK BETWEEN ORGANOCHLORINES, BREAST CANCER

A several year study of breast cancer clusters on Long Island has found no link between the disease and exposure to chemical pollutants known as organochlorine compounds. But a separate study found that high exposure to pollutants called polycyclic aromatic hydrocarbons was linked to a modest increase in risk of developing breast cancer.

The results were announced in three separate papers stemming from the Long Island Breast Cancer Study Project, one of the largest and most comprehensive environmental epidemiologic studies ever undertaken to explore the environmental factors that may trigger breast cancer.

The researchers found an increased rate of breast cancer among area women who might have been exposed to organochlorine compounds such as the pesticide DDT. However, high levels of exposure to polycyclic aromatic hydrocarbons (PAHs) found in cigarette smoke, vehicle exhaust and certain foods, appears to elevate women's risk of breast cancer by 50 percent in New York's Suffolk and Nassau counties.

The Long Island study was ordered by Congress in 1993 in response to reports of elevated breast cancer deaths in a number of northeastern states. Though many of the cases can be traced back to known risk factors, such as a family history of breast cancer, or have a first child at a later age, the reasons for the remaining cases are unknown.

Among the possible triggers for breast cancer under study are exposure to contaminated drinking water, sources of indoor and outdoor air pollution, including emissions from aircraft, electromagnetic fields, pesticides and other toxic chemicals, and hazardous and municipal wastes.

PAHs were examined because these compounds are known to cause breast cancer in rodents, and a few small human studies have suggested a possible association between these chemicals and increased risk of breast cancer. Women can be exposed to PAHs by breathing in cigarette smoke, and exhaust from cars, trucks and planes, and by eating grilled and smoked foods.

Exposure to PAHs causes the chemicals to attach to DNA, creating compounds known as adducts. Women with the highest levels of PAH adducts in their blood had a 50 percent greater chance of developing breast cancer, the study found.

Compared to other known risk factors for cancer, a 50 percent increase in risk is considered modest, the researchers note. For example, smoking increases the risk of developing lung cancer by 900 percent to 1,000 percent, while a family history of breast cancer increases risk by 100 percent to 200 percent.

In addition, only women with the highest adduct levels showed an increased risk of cancer – lower levels, even levels higher than average, were not associated with higher risk.

For example, some women may have stronger responses to PAHs because of their higher levels of the hormone estrogen. Estrogen boosts cell turnover, making it harder for the body to repair damaged cells before they replicate and pass the damage to new cells. Breast cancer victims are known to have more estrogen in their blood on average than other women.

"We know too, for example, that if a woman's ovaries, which produce estrogen, are removed before she is 35, her risk of breast cancer drops by half," Gammon said. "Men, who have little estrogen, rarely get breast cancer."

The increase in breast cancer risk associated with PAH was restricted to women with breast tumors

PA REGULATORY UPDATES *(Continued from page 10)*

to be available from the DEP's regional offices and local county conservation districts until it is replaced or updated. In addition, the permit documents are on file at the Department of Environmental Protection, Bureau of Watershed Management, 10th Floor, Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101.

(PA DEP Update - 9/27/02)

DEP ANNOUNCES COMPREHENSIVE STORMWATER MANAGEMENT POLICY

DEP has announced a new Stormwater Management Policy that integrates federal stormwater management requirements into State Implementation programs and establishes a uniform approach for stormwater management across DEP programs.

The policy provides recommended stormwater management approaches to ensure existing water quality is protected in special protection waters, and existing uses and the level of water quality necessary to maintain those uses are protected in waters other than special protection.

The recommended approach of stormwater management provided in the policy emphasizes the use of innovative Best Management Practices (BMPs) to infiltrate stormwater, treat runoff, and control the volume and rate of discharges to protect groundwater resources, help maintain stream base flows, and protect the physical stability and environmental integrity of waters of the Commonwealth. The policy recommends a pre and post construction stormwater analysis to be conducted with the objective of replicating the pre-construction infiltration rates and runoff conditions during post construction.

The DEP has received an Environmental Protection Agency grant to support the development of a Pennsylvania Stormwater BMP Manual. The DEP will shortly be establishing an oversight committee comprised of various interests to guide in the development of that manual. The Pennsylvania Stormwater BMP Manual is scheduled to be completed in 2004. In the interim, the policy provides numerous manuals and references to websites that contain planning options along with BMPs that can be used to meet the objectives of this policy. Key highlights of the policy are presented below.

(PA DEP Update - 9/27/02)

COMPREHENSIVE STORMWATER MANAGEMENT POLICY - EXECUTIVE SUMMARY EXCERPTS

DEP recently responded to public comments and issued a comprehensive stormwater management policy.

Since announcement of the Proposed Comprehensive Stormwater Management Policy in October 2001, the Department has proposed, revised or otherwise finalized the following related documents:

- Renewal of NPDES Stormwater Construction General Permit (5 acres or greater)
- Proposed NPDES Stormwater Construction General Permit (1 - 5 acres)
- Proposed MS4 General Permit

- Renewal of NPDES Industrial General Permit
- Revised Act 167 Model Ordinance
- EPA has approved funding to support the development of a Post Construction Stormwater Technical BMP Manual

The final policy sets forth the Department's general framework for implementing its stormwater management programs, using existing legal authority. In particular, the policy promotes and integrates the following into the Department's existing stormwater management programs:

- A clarification of the application of existing anti-degradation provisions in 25 Pa. Code Section 93.4a to the BMP-based stormwater programs to protect and maintain existing uses and maintain water quality necessary to support those uses in all streams and to protect and maintain water quality in special protection streams.
- A uniform approach to post construction stormwater management that emphasizes groundwater recharge through infiltration, water quality treatment and discharge volume and rate control with a goal of replicating infiltration and runoff characteristics of the site prior to development.
- The proposed Part II Water Quality Management permit is not included in the final policy. Instead, post construction stormwater management planning has been integrated into the NPDES stormwater permitting programs.
- The promotion of a comprehensive watershed approach to stormwater management through the Act 167 stormwater management planning program.
- The final policy clarifies that existing Department policies and programs related to flood protection and combined sewer overflows are not affected by this policy.

Fundamentally, the policy emphasizes the reduction of stormwater runoff generated by development and other activities by encouraging the minimization of impervious cover, use of low impact development designs, and the use of innovative stormwater BMPs that provide infiltration, water quality treatment, and otherwise more effectively manage the volume and rate of stormwater discharges. These stormwater BMPs and planning practices will be advanced through increased emphasis on the department's Act 167 stormwater management planning program and implementation of the new (Phase II) and existing (Phase I) NPDES Stormwater Discharge Associated with Construction Activity Permit programs, and the new NPDES MKS4 permits.

Administratively, the Department is advancing a consistent approach to stormwater management in all NPDES stormwater permits and in the Act 167 stormwater planning processes. Department-approved Act 167 stormwater management plans and NPDES permits required under the federal Clean Water Act will include the same planning objectives to protect and maintain existing uses and maintain the level of water quality necessary to protect those uses in all streams, and to protect and maintain water quality in special protection streams. For instance, municipalities who follow the recommended stormwater planning protocol

in the MS4 General Permit described in this policy can satisfy those planning objectives in both the applicable NPDES permits and the Act 167 stormwater planning requirements. In addition, persons implementing post construction stormwater plans under Act 167 that emphasize infiltration, water quality treatment and other volume and rate controls can also satisfy the post construction stormwater management planning requirement of the NPDES Stormwater Discharge Associated with Construction Activity Permit and the MS4 Permit.

The terms stormwater and stormwater management as utilized throughout the policy refer to increased volumes and rates of runoff resulting from construction and land development activities. Stormwater management as recommended in this policy is not intended to address over bank flooding resulting from major storm events. Stream and river flooding from major storm events is addressed through the Department's Flood Protection and Stream Improvement Programs.

ENVIRONMENTAL LABORATORY ACCREDITATION ACT PROVISIONS NOW EFFECTIVE

October 2, 2002 was the deadline for "environmental laboratories" to register with PADEP if they intended to continue to perform "testing or analysis of environmental samples". An environmental sample is defined by the statute (formerly House Bill 2044 PN 4198) as a "solid, liquid, gas or other specimen taken for the purpose of testing or analysis as required by an environmental statute." DEP interprets the registration requirement as including those persons who perform stack testing, catalyst testing, testing inks and coating for VOC content, tank tightness testing, analysis of contents of aboveground storage tanks for psla, as well as wastewater systems, drinking water and soil sampling.

The initial requirement was to pay a \$50 registration fee and register with DEP. Eventually, regulations will be promulgated to address the specific accreditation program.

The statute provides for administrative, civil and criminal penalties for persons who violate or cause or assist in violating the act. There is also whistleblower protection included in the law.

For your ease of reference, I clipped the following blurb from DEP's air quality web site explaining the new requirement.

The Environmental Laboratory Accreditation Act (Act 25 of 2002) requires that all environmental laboratories register with the Pennsylvania department of Environmental Protection within six months of the effective date of the Act, April 2, 2002, on a registration form prepared by the department. An environmental laboratory is defined in the Act as a facility engaged in the testing or analysis of environmental samples as required by an environmental statute administered by the department. For more details on the Act or a copy of the registration form: www.dep.state.pa.us/dep/dep-date/mts/bol/

(From the Law Office of William J. Cluck)

TECHNOLOGY UPDATES *(CONTINUED)*

that were either estrogen receptor and progesterone receptor positive or who were negative for both, she said. This means the link was stronger for women with cancers that are considered hormone sensitive, but the reason for the link is unclear.

The current research, reported today in two papers in the journal "Cancer Epidemiology, Biomarkers & Prevention," is also available at: <http://cancer.gov/cancerinfo/LIBCSP>

(By Cat Lazaroff, Environment New Service - 8/7/02)

CLIMATE RELATED PERILS COULD BANKRUPT INSURERS

Climate change is causing natural disasters that the financial services industry must address, a group of the world's biggest banks, insurers and re-insurers warned. They estimated the cost of financial losses from events such as this summer's devastating floods in central Europe at \$150 billion over the next 10 years.

"Climate Change and the Financial Services Industry," a report supported by 295 banks and

insurance and investment companies, was launched today at the Swiss Re Greenhouse Gas conference in Zurich.

A partnership between the United Nations Environment Programme (UNEP) and the financial institutions, known as UNEP Finance Initiatives commissioned the report. It shows that losses as a result of natural disasters appear to be doubling every decade and have reached \$1 trillion in the past 15 years.

(Environment News Service - 10/9/02)

FEDERAL REGISTER NOTICES

ENVIRONMENTAL PROTECTION AGENCY - FEDERAL REGISTER NOTICES

<http://www.epa.gov/homepage/fedrgstr/>

National Emission Standards for Hazardous Air Pollutants: Site Remediation; Proposed Rule.

This action proposes National Emission Standards for Hazardous Air Pollutants (NESHAP) under the authority of section 112 of the Clean Air Act (CAA) for the site remediation source category. The EPA has determined that site remediation activities can be major sources of organic hazardous air pollutants (HAP) (including benzene, ethyl benzene, toluene, vinyl chloride, xylenes) and other volatile organic compounds. *(Federal Register, 7/30/02)*

Motor Vehicle and Engine Compliance Program Fees for: Light-Duty Vehicles; Light-Duty Trucks; Heavy-Duty Vehicles and Engines; Nonroad Engines and Motorcycles; Proposed Rule.

This action proposes to update the current Motor Vehicle and Engine Compliance Program (MVECP) fees regulation under which fees are collected for certification and compliance activities related to light-duty vehicles and trucks, heavy-duty highway vehicles and engines, and highway motorcycles. *(Federal Register, 8/7/02)*

Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Non-Conformance Penalties for 200r and later Model Year Emission Standards for Heavy-Duty Diesel Engines and Heavy-Duty Diesel Vehicles.

EPA is finalizing nonconformance penalties (NCPs) for the 2004 and later model year non-methane hydrocarbons and nitrogen oxides (NMHC+NOX) standard for heavy-duty diesel engines and vehicles. *(Federal Register, 8/8/02)*

Control of Air Pollution From Motor Vehicles and New Motor Vehicle Engines; Revisions to Regulations Requiring Availability of Information for Use of On-board Diagnostic Systems and Emission-related Repairs on 1994 and Later Model Year Light-Duty Vehicles and Light-Duty Trucks and 2005 and Later Model Year Heavy-Duty Vehicles and Engines Weighing 14,000 Pounds Gross Vehicle Weight or Less; Notice of Document Availability.

(Federal Register, 8/13/02)

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products; Proposed Rule.

This action proposes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating operations located at major sources of hazardous air pollutants (HAP). The proposed standards would implement section 112 (d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The HAP emitted by these operations include xylene, toluene, methyl ethyl ketone (MEK), phenol, cresols/cresylic acid, 2-butoxyethanol, styrene, methyl isobutyl ketone (MIBK), ethyl benzene, and glycol ethers. *(Federal Register, 8/13/02)*

ENVIRONMENTAL PROTECTION AGENCY - FEDERAL REGISTER NOTICES

<http://www.epa.gov/homepage/fedrgstr/>

Control of Emissions from Spark-ignition Marine Vessels and Highway Motorcycles; Proposed Rule.

In this action, EPA is proposing evaporative emissions standards for marine vessels that use spark-ignition engines (including sterndrive, inboard, and outboard engines and personal watercraft) and EPA discusses plans to propose standards in the future regulating exhaust emissions from spark-ignition marine engines. This action also proposes new emission standards for highway motorcycles, including motorcycles of less than 50 cubic centimeters in displacement. *(Federal Register, 8/14/02)*

Revisions to the Definitions and the Continuous Emission Monitoring Provisions of the Acid Rain Program and the NOX Budget Trading Program; Correction.

(Federal Register, 8/16/02)

Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; State of New Jersey.

On January 15, 2002, the New Jersey state Department of Environmental Protection (NJDEP) submitted a request to EPA to redesignate the New Jersey portion of the New-Northern New Jersey-Long Island Carbon Monoxide (CO) nonattainment area from nonattainment to attainment of the National Ambient Quality Standard (NAAQS) for CO. EPA is approving this request from the state of New Jersey. *(Federal Register, 8/23/02)*

Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category; Proposed Rule.

This action presents the U.S. Environmental Protection Agency's (EPA's) proposed effluent limitations guidelines and standards for wastewater discharges from the concentrated aquatic animal production (CAAP) industrial point source category. *(Federal Register, 9/12/02)*

Recent Posting to the Applicability Determination Index (ADI) Database System of Agency Applicability Determinations, Alternative Monitoring Decisions, and Regulatory Interpretations Pertaining to Standards of Performance for New Stationary Sources, National Emission Standards for Hazardous Air Pollutants, and the Stratospheric Ozone Protection Program.

(Federal Register, 9/13/02)

Proposed Revisions to Clarify the Scope of Sufficiency Monitoring Requirements for Federal and State Operating Permits Programs.

(Federal Register, 9/17/02)

Effluent Limitations Guidelines and Standards for the Bleached Papergrade Kraft and Soda Subcategory of the Pulp, Paper, and Paperboard Point Source Category.

This action promulgates an amendment to the effluent limitations guidelines and standards under the Clean Water Act for the Pulp, Paper and Paperboard Point Source Category. *(Federal Register, 9/19/02)*

ENVIRONMENTAL PROTECTION AGENCY - FEDERAL REGISTER NOTICES

<http://www.epa.gov/homepage/fedrgstr/>

The Metal Finishing Facility Risk Screening Tool (MFFRST): Technical Documentation and User's Guide.

(Federal Register, 9/19/02)

Standards of Performance for Bulk Gasoline Terminals and National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals And Pipeline Breakout Stations); Proposed Rule.

(Federal Register, 9/20/02)

National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

This action promulgates final amendments to the national emission standards for secondary aluminum production based on the June 14, 2002 proposal which accompanied the direct final rule. *(Federal Register, 9/24/02)*

Land Disposal Restrictions: National Treatment Variance to Designate New Treatment Subcategories for Radioactively Contaminated Cadmium-Mercury-and Silver-Containing Batteries; Final Rule and Proposed Rule. EPA is taking direct final action to grant a national treatability variance from the Land Disposal Restrictions (LDR) treatment standards for radioactively contaminated cadmium-, mercury-, and silver-containing batteries by designating new treatment subcategories for these wastes in response to a rulemaking petition from the Department of Energy. *(Federal Register, 10/7/02)*

FEDERAL UPDATES

- Diesel Exhaust & Lung Cancer - Pg. 4
- Peter Malik on MTBE Problems - Pg. 4
- Off Road Vehicle Problems- Pg. 5
- Post Bankruptcy Env. Obligations - Pg. 6
- PM2.5 Nonattainment - Pg. 7
- Underwater Sediment Cap - Pg. 9

NJ REGULATORY UPDATES - Page 3

- State Gets Superfund Boost

TECHNOLOGY UPDATES

- Drought Pronounced by Sprawl? - Pg. 11
- No Organochlorines/Breast Cancer Link - Pg. 13
- Climate Perils - Bankrupt Insurers? - Pg. 14

PA UPDATES

- Drop in Hazardous Waste - Pg. 10
- DEP's New Waste Oil PPC Requirements - Pg. 10
- DEP's Comprehensive Stormwater Policy - Pg. 14

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
WALTER HUNGARTER	WHUNGARTER@RTENV.COM
PETER MALIK	PMALIK@RTENV.COM
CHRIS ORZECOWSKI	CORZECOWSKI@RTENV.COM
VALERIE POWERS	VPOWERS@RTENV.COM
JADE SIMMERS	RTRDG@AOL.COM

**VISIT OUR WEBSITE
WWW. RTENV.COM**



**IN THIS
ISSUE**

Page 1

CALIFORNIA PERC BAN

Page 5

USED PRODUCT CERCLA DEFENSE

Page 6

NO DIESEL RULE DELAY

Page 9

ARSENIC TREATED WOOD

Page 10

ALTERNATIVE TO EPA PPA'S

Page 12

ALLENTOWN SCHOOL MOLD CASE

Page 13

FISH MERCURY LEVELS

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, Pennsylvania 19406

PRSRST STD
U.S.Postage
PAID
Permit #159
Lehigh Valley, PA

