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Practical and Current information for Environmental, Health and Safety Professionals



CLIMATE CHANGE: THE VERDICT

LARRY OLSEN See pg 16

BLOODBORNE PATHOGENS

MIGUEL A. RODRIGUEZ See pg 18

GATEKEEPER REGULATORY ROUNDUP

See pg 6

The 2007 Annual RCRA Seminar RCRA in The Real World



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May 17, 2007

at the

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Morning Session

Track I: Basics

- RCRA Basics
- Waste Characterization
- Waste Transportation
- Workplace Safety

Track II: Management

- Regulatory Update
- RCRA Enforcement
- RCRA Inspection
- Advanced RCRA

Combined Afternoon Session

- RCRA and the BHP San Manuel Mine Closure
- RCRA and The Community
- The Management of Multiple & Diverse Waste Streams
- RCRA Management on a Military Base

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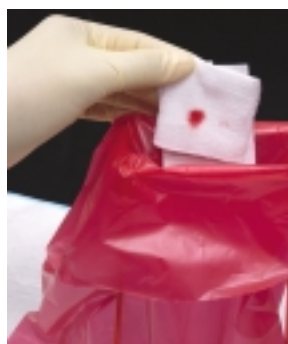
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From the Editor



I was reminded this past weekend of what a beautiful state we live in while entertaining out-of-state family friends from near Buffalo, New York. After leaving the cold and overcast weather in western New York, and flying into Phoenix, my visitors really appreciated the warm, nice weather and beautiful scenery we have here in Arizona. Walking

around the neighborhood, they were impressed with the beautiful mountain landscapes, varieties of cactus, and flower blossoms - things most of us who live here all year tend to look right past. We also drove up north through the desert and mountains, up through the Sedona area, with its red-rock mountain formations and beautiful new homes and buildings. Sometimes it takes an outside visitor to show you how good we really have it here.

The environmental associations in Arizona do a great job planning for and hosting educational conferences and tradeshow. Most recently, three organizations, EPAZ, Thunderbird-ACHMM, and AZSERC, hosted the 3rd Annual Regulatory Roundup in Scottsdale. I won't describe it in detail

here (but see pages 6 & 7), however, the great turnout (267 registered) and high professionalism of the conference shows that the environmental community in Arizona is really maturing — people want to be more aware of regulations and progress, and want to be involved and participate. It takes a lot of work from a lot of people to host a successful conference like this. Congratulations to those who put this together!

Sincerely, Jim Thrush, M.S. Environmental Management

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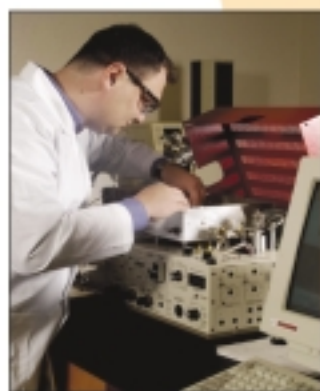
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Gatekeeper / Regulatory Roundup *a rounding success!*

by Journal Staff

One of the most successful Gatekeeper Regulatory Roundups ever was held Feb. 20th and 21st at the Scottsdale Chapparal Suites Resort. The third annual Gatekeeper Regulatory Roundup was a 2-day conference for environmental, health & safety professionals in Arizona. This is one of the best attended environmental events in Arizona; it was reported that 267 people registered.

The conference was hosted by the Environmental Professionals of Arizona (EPAZ), the Thunderbird Chapter of the ACHMM, and the Arizona Emergency Response Commission (AZSERC).

Attendees had the opportunity to visit with environmental vendors and service providers in the conference booth area, network with other professionals at breaks and lunches, and attend speaking sessions on a variety of topics. On day one, session topics included Air Quality Permitting, State Hazardous Air Pollutant Program, Clean Water Act, AZPDES Update, Vapor Intrusion, Soil Remediation, RCRA Exemptions, Chemical Management from an OSHA Perspective, DOD/DOT HazWaste Shipping Protocols and more. On day two, session topics included: AZSERC Portal-Web Reporting Expansion/Enhancements, Innovative Uses of Tier Two Information, Tribal Environmental/Emergency Management Programs, Business Continuity Planning, Building Partnerships/Public-Private Advancements, Fire Department Perspectives, EPCRA-Following the Rules, Spill Reporting and more. Attendees also had the opportunity to attend the OSHA 8 Hour HAZWOPER & RCRA update on day two of the conference.

Speakers included Stephen A. Owens, Director, Arizona Department of Environmental Quality, and many others. Keynote speakers included: Edward M. Ranger, ADEQ Administrative Counsel, speaking on "Environmental Impacts Due to Arizona Border Issues" and Louis "Lou" B. Trammell, Director, Arizona Division of Emergency Management; Chair, Arizona Emergency Response Commission, speaking on "Government is From Mars; Industry is From Venus: We're in This Universe Together!"

The first day closed with a reception for attendees sponsored by Romic Environmental Technologies Corp. The reception included live entertainment by "Edible Shammy" featuring local environmental professionals.

The GRR planning committee is made up of volunteers who work for many months to prepare the conference. The Journal commends the dedication of these individuals and the organizations that support the environmental community in Arizona.

Vendor Booths shown below are just a few of the many vendor booths

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Sessions / Speakers

A Few of the Many Speakers



Entertainment



The Planning Committee



news briefs

Paul Plato and Tom Suriano Join Clear Creek Associates

❖ Clear Creek Associates announced recently that Paul Plato R.G. and Tom Suriano, R.G., have joined their organization. Each brings professional experience and expertise that expands and enhances the firm's technical capabilities.

Paul Plato has more than 18 years of experience in hydrogeology and

is highly-respected for groundwater modeling and GIS database management. He will be managing a range of projects from groundwater supply assessments using computer models and GIS techniques to groundwater remediation design and implementation.

Tom Suriano brings more than 20 years of experience in managing large scale groundwater remediation projects and has a superb understanding of State and Federal requirements and processes for remediating groundwater contamination. Tom will continue his long association with the Motorola 52nd St. site remediation, but will also be managing other environmental investigations and remediation projects as well as managing groundwater supply projects.



Tom Suriano



Paul Plato, R. G.

Clear Creek Associates staff now totals more than 40 in their Scottsdale and Tucson offices.

Clear Creek Associates can be contacted at 480-659-7131 in Tucson, or 520-622-3222 in Tucson.

Jack Allen Joins ARCADIS

❖ ARCADIS announced recently that Jack Allen has joined ARCADIS as Vice President Environmental Planning and Permitting Business Practice Leader, Western Region. Jack will be based out of ARCADIS' Phoenix, Arizona office, and will focus on strategic growth of the ARCADIS business practice in addition to providing expertise in all facets of strategic growth related to client service, business development and operations. He will also coordinate with project related public and agency involvement programs.

"With top level experience in environment and transportation Jack is a perfect compliment to the ARCADIS team," said Zack Smith, ARCADIS executive vice president. "He has a proven track record of excellence and demonstrates our commitment to provide superior results for our clients."

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Allen brings over 20 years of experience in the EP&P arena with a strong focus on transportation projects in Arizona, New Mexico, Nevada, Utah, California, Idaho, Oregon, and Washington. He has extensive experience with compliance studies, restoration, evaluations, environmental impact statements (EIS) and environmental assessments for National Environmental Protection Act (NEPA) and related regulations.

An additional area of his expertise is developing and implementing public and agency involvement programs. He has implemented successful participation strategies for a variety of projects, including the first study partnering process for the Red Mountain Freeway EIS and a unique American Planning Association award-winning public involvement program for the Park Avenue Streetscape Project in Tucson (one of 15 of these types of projects across the nation). ARCADIS maintains a website at www.arcadis-us.com.

Phoenix Area Fails to Attain Air Quality Health Standard

✦ The U.S. Environmental Protection Agency (EPA) announced recently that it is proposing to find that the Phoenix area has failed to meet the federal clean air standard for coarse particulate matter (PM-10), or dust, by the December 31, 2006 deadline. EPA is also making a similar proposal for the Owens Valley, California area.

If finalized, the Clean Air Act requires the state to submit a plan containing measures that will reduce airborne particulate matter five percent a year until the area meets the federal air quality standard. After a 30-day comment period, the EPA will make a final decision on its finding.

The proposed finding is based on air quality monitoring data for PM-10 from 2004 to 2006.

"The Phoenix area faces a serious PM-10 problem," said Deborah Jordan, the EPA's Air Division director for the Pacific Southwest. "We are working closely with the state and local agencies to take the necessary steps to bring clean air to the valley."

National health standards for pollutants that threaten public health and the environment are set by the EPA as mandated by the Clean Air Act. To be considered to have met the health standard, the Clean Air Act requires three consecutive years of clean air.

When an area violates a health-based standard, the Clean Air Act requires the area to be designated as a non-attainment area for that pollutant. The Phoenix area was designated a serious non-attainment area for PM-10 in 1996 with an attainment date of no later than December 2001.

After the area applied for an extension, the EPA granted the maximum 5-year extension with a new December 31, 2006 deadline. The primary causes of dust pollution in the Phoenix area are from windblown dust from construction sites, road building activities, agricultural fields, unpaved parking lots and roads, disturbed vacant lots, and paved road dust.

Particulate matter affects the respiratory system and can cause damage to lung tissue and premature death. The elderly, children, and people with chronic lung disease, influenza, or asthma are especially sensitive to high levels of particulate matter.

US EPA Awards \$252,692 to Tucson Environmental Group for Air Quality Improvements

✦ The U.S. Environmental Protection Agency has awarded \$252,692 to the Sonora Environmental Research Institute, Inc., for its efforts to reduce community exposure to air toxics by voluntary reductions in homes and local businesses.

This award is part of the EPA's Community Action for a Renewed Environment program, which recently awarded \$2.7 million nationwide to help community-based partnerships reduce air toxic risks through voluntary risk reduction activities.

"Through our Community Action for a Renewed Environment grant, the EPA is helping to empower the Tucson community with the tools they need to address their local environmental challenges," said Wayne Natri, Regional Administrator,

Continued next page



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Newsbriefs

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Region 9, EPA. "The EPA's Community Action for a Renewed Environment program gives communities the power to make changes so they can deliver real environmental results."

"The Community Action for a Renewed Environment grant allows us to expand our community-driven, community-supported project which helps reduce exposure to toxic pollutants, improving the health of the community," said Ann Marie Wolf, president, Sonora Environmental Research Institute, Inc.

Aiming to improve community health, the Sonora Environmental Research Institute, Inc., in partnership with the Rose Family Center of the Tucson Unified School District, developed the Community Assist of Southern Arizona program, which teaches residents how to voluntarily improve air quality within their own community.

By using the Promotoras del Barrio program - over 50 local women who speak Spanish - for community outreach, the Community Assist of Southern Arizona program reaches area residents and businesses door-to-door, urging them to reduce environmental threats by encouraging careful storage of household cleaning supplies, and checking homes for lead, mold and other potential air pollutants.

Established in 2005, the EPA's Community Action for a Renewed Environment program helps build broad-based local partnerships for reducing risks from toxic pollutants that come from numerous sources.

Honeywell to Pay \$500,000 Penalty for Haz. Waste Violations in Mohave County

✦ Arizona Attorney General Terry Goddard and Arizona

Department of Environmental Quality Director Steve Owens announced recently that Honeywell International, Inc. will pay a \$500,000 penalty under a consent judgment with ADEQ for hazardous waste violations in Mohave County.

In September 2005, ADEQ inspectors discovered that the Honeywell Aircraft Landing Systems facility in Kingman, an FAA-certified repair and overhaul station for aircraft wheels and brakes, was operating two natural gas-fired hazardous waste thermal treatment units without the required hazardous waste treatment permit.

"I am committed to enforcing hazardous waste laws," Goddard said. "These laws protect our communities, and I will continue to seek penalties from companies that violate these laws." Owens stated, "Arizona's hazardous waste laws and regulations were established for protection of the public and the environment. This penalty reflects the serious nature of the violations at Honeywell's Kingman facility."

ADEQ issued a Notice of Violation (NOV) to Honeywell Kingman on Nov. 15, 2005, for thermally treating its hazardous waste without a permit, failing to submit signed manifests, failing to properly label each container and tank as hazardous waste, failing to inform employees of proper handling and emergency procedures and failing to comply with personnel training requirements.

ADEQ also found that Honeywell was underreporting its hazardous waste, inaccurately classifying it as solid waste by using an incorrect regulatory level for cadmium, an element that may irritate the digestive tract, cause kidney disease and damage the lungs. Cadmium stays in the body and can build up from many years of exposure to low levels.

The consent judgment is subject to court approval.

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Michael C. Ford, Attorney

Regulatory Developments

Tulloch and Tree Huggers Tread Water

Back to the world of water regulation for this issue, where perhaps the biggest news, other than the perpetual imminence of the post-*Rapanos* agency guidance regarding the extent of Clean Water Act jurisdiction, is another jurisdiction-related setback suffered by the agencies in a case unrelated to *Rapanos*. On January 30, 2007, the United States District Court for the District of Columbia decided *National Association of Home Builders vs. U.S. Army Corps of Engineers*, the latest chapter in the "Tulloch Rule" saga that began over a decade ago, involving the regulation of excavation activities in jurisdictional waters under the 404 program.

We can pick up the story in 2001, with the Corps' and EPA's third attempt at defining when the fallback of dredged material from and into jurisdictional waters constitutes a regulated discharge. The regulations at issue (1) defined "incidental fallback" as "the redeposit of *small volumes* of dredged material that is incidental to excavation activity . . . when such material falls back to *substantially the same place* as the initial removal"; and (2) created a presumption that a 404 permit is required with the use of "mechanized earth-moving equipment to conduct . . . earth-moving activity in the waters of the United States," absent "project-specific evidence" showing that the activity results in "only incidental fallback."¹ The instant suit challenging these provisions was filed in 2001, with the latest decision issued January 30, 2007.

The court first rejected the requirement that the volume of fallback be small, concluding that the "volume of material being handled is irrelevant." The court explained that the incidental fallback/redeposit criteria are "better understood in terms of two other factors: (1) the time the material is held before being dropped to earth and (2) the distance between the place where the material is collected and the place where it is dropped." While the proximity issue was addressed by the "substantially the same place" language, the court found the regulations deficient in their failure to address the "holding time" issue. Finally, the court rejected the so-called "rebuttable

presumption" that the use of earth moving equipment results in a regulated discharge, characterizing the Corps' position as indicative of "a degree of official recalcitrance that is unworthy of the Corps." The court prohibited EPA and the Corps from enforcing the rule and reminded the agencies of their obligation to make a "reasoned attempt" to draw a "bright line" distinguishing incidental fallback from regulated other redeposits, which they had thus far failed to do.

The post-*Rapanos* case law has continued to develop over the last few months, thanks to citizens groups, with three more major decisions rendered, including two more from within the Ninth Circuit, and all of them involving alleged NPDES permit applicability (not § 404). *Environmental Protection Information Center v. Pacific Lumber Co.*² is the first case in the Ninth Circuit (second nationally) to apply *Rapanos* in the context of intermittent or ephemeral streams. The case involved the alleged discharge of sediment to intermittent streams, which lead to a navigable-in-fact water. The court applied the "significant nexus" concept (Kennedy's test), which it characterized as requiring at least evidence of a hydrologic connection, plus, in the case of intermittent or ephemeral waters, some additional demonstration that these waters significantly affect the quality of the downstream navigable-in-fact water. Unfortunately, the court did not elaborate as to what evidence would suffice to meet this demonstration, except to note that a prior Ninth Circuit decision had found "ecological connections" sufficient. The court did, however, also reject any requirement to "demonstrate the flow of pollutant" from the receiving water to the navigable-in-fact water, suggesting that the significant nexus test for jurisdiction, unlike the Scalia position, does not require evidence that the discharged material actually reached a navigable-in-fact water.

*Simsbury-Avon Preservation Society, LLC v. Metacoon Gun Club, Inc.*³ involved a citizens group's attempts to force a shooting range located on a wetland to obtain a 402 permit essentially because it periodically flooded and flowed into a nearby river (although it was apparently not adjacent to the river). The court concluded that the periodic flooding was insufficient to establish the requisite "continuous connection" between the wetland and navigable-in-fact water under the Scalia plurality test. The court also applied the significant nexus test using the limited amount of sampling data that has been offered by the plaintiffs purporting to show lead contamination on the property presenting a risk to humans and wildlife. The court found the showing insufficient to establish a significant effect on the navigable-in-fact water, and granted summary judgment for the defendant.

Finally, the Ninth Circuit issued its second post-*Rapanos* decision, *San Francisco Baykeeper v. Cargill Salt Div.*⁴ The court denied jurisdiction over discharges to a pond adjacent to a navigable-in-fact waterway, clarifying that adjacency to a navigable-in-fact water alone supports jurisdiction only where the receiving water is a wetland. The court also easily rejected the plaintiffs significant nexus argument since the evidence established the pond did not even flow into the navigable-in-fact water.

Maybe by the time this issue hits the streets, we'll have that agency guidance....

Footnotes:

- 1 66 Fed. Reg. 4550, 4575 (January 2001) (emphasis added).
- 2 2007 WL 43654 (N.D. Cal. January 8, 2007).
- 3 2007 WL 26341 (D. Conn. January 31, 2007).
- 4 2007 WL 686352 (9th Cir. 2007).

Michael C. Ford is an Attorney with the Phoenix office of Bryan Cave, LLP, practicing environmental and occupational safety law. His practice is focused primarily on regulatory compliance advice and enforcement defense. He can be reached at 602-364-7417, or by email at mcford@bryancave.com.

Associations Pages



AAI

AAI will hold its 2007 Air Conference on Tuesday, May 15th at the Pointe Hilton Tapatio Cliffs Resort. Registration information can be found on AAI's web page at www.azind.org. The 2007 AAI Air Conference will include presentations on Maricopa County's HAPS program implantation, Title V Program changes and related issues, enforcement case studies, the impact of MAG's 41 PM 10 measures, internal environmental auditing and other timely topics. Maricopa County's Air Quality Division Director Bob Kard will also present the 2nd Annual Blue Sky Innovation Award to a deserving company. Please mark your calendars and plan to attend.

*Jeff Homer,
EHS Committee
Chairman*



AAI's EHS Committee continues to host monthly breakfast meetings on the second Wednesday of each month where timely topic of interest to environmental professionals are addressed. These breakfast meetings begin at 7:30 AM and are held at the Sheraton Phoenix Airport Hotel on 52nd Street and Broadway in Tempe. Go to AAI's webpage as noted above for speaker and registration information.

AAI's EHS Committee continues to monitor air, waste and water Issues affecting manufacturers in Arizona through a series of subcommittees. To participate on any of these subcommittees contact Jeff Homer at 480-441-6672.

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I've heard it many times and I'll bet you've heard it too - "It all happened in a second!" Many things can happen in **one second**. In **one second** you travel 60 feet at 40 mph. In **one second** you travel 83 feet at 55 mph. In **one second** you travel 113 feet at 75 mph. In **one second** . . . lives can change.

*Shari Di Peso,
Secretary*



This message was brought to the Southern Arizona Safety Council's February 20 meeting with a program, "In-City Collision Prevention Program" developed and delivered by Roxanne Bernal with Republic Beverage Company, Dave DeHaven with Tucson Electric Power and Officer Spike Walker with the Tucson Police Department. When you are driving, can you really spare that **one second** to . . . play with your cell phone, read directions, jot down a note, switch radio stations or change a CD, light a cigarette, apply makeup, shave . . . whether it's you or someone else, **one second** of inattention can make a difference – **one second . . . can change lives**.

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www.seshaonline.org

The Arizona Chapter of the Semiconductor Environmental Safety & Health Association (SESHA) held its first 2007 quarterly meeting on March 22, 2007 at Freescale Semiconductor in Chandler, Arizona.

The topics of presentation included HazMat Myths, Mold Identification & Remediation and NPDES Primacy Update. Presenters were from consulting firms and local government. For more details on attending an upcoming SESHHA quarterly meeting contact Martin Fekete at (480) 266-7915 or John Bucciarelli at (480) 814-2416.

*Marty Fekete,
President*



In addition, SESHHA will be holding its national conference again in Santa Clara California, the "Heart of Silicon Valley". National and international attendees are expected to participate. Presentations on changing technologies will be presented to include the emerging fields of nano and bio-technology.

For more information, dates, and hotel information, regarding the SESHHA national conference, please go to: <http://seshaonline.org/meetings/2007/index.php3>



Bob Estes,
President

Greetings!

SAEMS continues to be very active within the southern Arizona environmental community. We will be participating in the annual Earth Day Festival, to be held at the Tucson Children's Museum (across from Armory Park) on Saturday, April 21, from 9 AM to 1 PM. I highly recommend that you take

your family to this valuable child education-oriented, interactive event. The SAEMS annual RCRA seminar will be held at the Marriott Tucson University Park Hotel, 880 East 2nd Street, from 7:30 AM to 4:30 PM on Thursday, May 17. This is the premier annual environmental conference in southern Arizona – we hope to see you there!

As the end of the fiscal year draws closer, we are commencing the process to identify a slate of new officers for the 2007/2008 fiscal year. Elections are in May and the new board will commence their terms at the June meeting. The open positions include President-Elect, Vice President, Secretary, Treasurer and Communications Coordinator. Please contact Jeff Christenson if you are interested in running for a SAEMS Executive Committee position. As always, you can get further details regarding the planned events on our website: www.saems.org.

SAEMS



If you have any questions about SAEMS please VISIT OUR WEBSITE AT WWW.SAEMS.ORG



Jeanie Merideth
Society Manager

CONGRATULATIONS to the new 2007 AHS **Corporate Board**: President: Alan Dulaney (Phoenix); Vice-President: Ted Lehman (Phoenix); Secretary: Marla Odom (Tucson); Treasurer: A Michael Geddis (Tucson). **Directors**: Nick Melcher (Tucson); Paul Plato (Phoenix); Le Anna Walker (Phoenix); Aregai Tecle (Flagstaff); Dana Downs (Flagstaff)

The AHS Annual Symposium is well underway with it's planning. A record number of abstracts were submitted and the sponsorships are coming in. Please visit the Symposium web site at www.watersymposium.com.

AHS is proud to be a major sponsor of the 6th International Symposium on Managed Aquifer Recharge (ISMAR6) to be held at the Pointe South Mountain Resort in Phoenix from October 28 to November 2, 2007. This conference is the world's preeminent conference devoted entirely to managed aquifer recharge and will include 58 speakers from all over the world, numerous poster papers, as well as a day-long field trip to key recharge projects in the Phoenix Metropolitan area of Arizona. Managed aquifer recharge is an increasingly critical component of water supply throughout the world because it offers the opportunity to inexpensively store and treat water supplies. It is especially critical in desert areas such as in the Southwest United States, Africa, the Middle East, and areas of Asia and Australia. This conference will showcase the many advances and research in aquifer recharge that have been pioneered in Arizona. Dr. Ed Bouwer of Johns Hopkins University will give the keynote address on Monday, October 29, 2007. Be sure to visit the website: <http://www.ismar2007.org>

Arizona Hydrological Society



please visit the AHS web site: <http://www.azhydrosoc.org>



Chuck Paulausky,
Board Member

Thanks to everyone who attended for a very successful 2007 Gatekeeper Regulatory Roundup. We had a great turnout for this event! And thanks to everyone that contributed to making it happen, including EPAZ, AZSERC, the planning committee, speakers, exhibitors, and sponsors.

Proceeds from GRR go towards the **Thunderbird Scholarship Fund**. A special note of congratulations to our 2007 Thunderbird Chapter scholarship winners: Fernando Alday and Matt Tomanek from Uof A, and Shahrzad Badvipour and Ashish Agrawal from ASU Polytech!

We have filled in the **Thunderbird Happy Hour** schedule for the next few months, so be sure to take time for some R&R and a chance to network. Mark your calendars for the 1st Thursdays, 5:30 PM - ??

The ACHMM/EPAZ monthly lunch meetings are now being held at the ASU MERCADO, 502 E. Monroe Street (SE of 7th St & Van Buren) from 11:30 ~ 1:00 on the second Thursdays of each month. Meeting details: www.thunderbirdchmm.org or www.epaz.org.

ACHMM Thunderbird



Calendar Items:

May 3 - T-Bird Happy Hour, BJ's Restaurant & Brewery, Chandler Fashion Center
May 10 - Luncheon Meeting, Renewable Energy
June 7 - T-Bird Happy Hour, Red, White & Brew, 6740 E McDowell Rd @Power, Mesa
June 14 - Luncheon Meeting, Water Update
July 12 - Luncheon Meeting hosted in Flagstaff
July 12 (Tentative) - T-Bird Happy Hour, Flagstaff- Time/Loc. TBD

Arizona Environmental Strategic Alliance



The Arizona Resource Exchange program is moving along nicely with Sue Diaz, Program Coordinator, reporting increased interest in the program and recent exchange "successes". Contact Sue at 602-325-4705 if you would like free assistance to evaluate materials you may currently be disposing of or recycling for potential reuse. Sue can help you locate a user for your materials, or can help you find a source for materials you need.

*Rob Barnett,
Chairman*



For those of you who attended the Performance Track / EMS Luncheon Seminar on April 3rd, we hope you found it informative and valuable. If your company has any questions or needs additional information about Performance Track or about Alliance membership contact us at 480-422-7392, or visit our website at www.azalliance.org.

EPAZ



Website:
www.epaz.org

Our March meeting featured four companies that offer tools and resources for environmental, health and safety professionals. Some of the tools are free and some are fee-based, but each company provides tools of the trade that can be extremely beneficial to the day to day responsibilities of EH&S professionals. The speakers were Jim Thrush, Journal of Environmental Mgmt, Sue Diaz, AZ Resource Exchange, Frank Pigeon, EHS Zone, and Dick Gramer, EDM. They did an excellent job explaining their companies and the resources that are available to us.

*Eddie Martinez,
President*



Our April meeting will feature a confined space court case presented by Michael Kimerer with Kimerer & Derrick, PC. This topic was originally part of the agenda at the Gatekeeper Regulatory Roundup conference, but was cancelled due to a medical emergency.

We are glad to announce we have partnered with Jobing.com to help us with our new job service center located on our Web-site. Please visit our web-site for more information.

SAVE THE DATE and mark your calendar's....Friday, May 11th is the date of our 3rd annual scholarship golf tournament. Please visit our website for player and sponsorship information.

EPAZ holds monthly luncheon meetings on the 2nd Thursday of the month from 11:30 am to 1:00 pm. Cost is \$20 members/\$30 non-members. EPAZ also gathers on the last Wednesday of the month for a casual cocktail mixer. Visit our web site at <http://www.epaz.org> for more details regarding upcoming meetings and our monthly mixer location or contact Eddie Martinez at (602) 708-9179.

EIA-AZ



EMAIL:
info@eia-az.org

The Arizona Chapter of the Environmental Information Association (EIA) is working on our website at the present time to make it the premier information source in the industry, with regulations, guidance documents, interpretative rulings, articles and eventually a "discussion room" feature.

We present regular monthly free one day seminars at locations in Arizona and the surrounding states, regular "Contractor Forum" meetings between contractors, consultants and regulators, and "Lunch on Lead" ½ day seminars on LBP regulations and issues. These seminars are paid for by generous support from the contractors and consultants in our industry, and in part by an agreement with U.S. EPA using funds provided by a Supplemental Environmental Project from Arizona Department of Transportation.

For more information, contact our secretary-treasurer, Sherry Bolte at 602-864-6564, or any of our board members. Board member information is posted on our website, www.eia-az.org.

*Bill Caveness,
President*





Sustainability and Sustainable Development

Nicholas R. Hild, PhD.

Sustaining Growth in Alt-Fuel Options

Automaker's end-of-the-year P & L statements were released showing how much stockholders can expect to make in the coming year. Some of those reports need to be read with a magnifying glass, especially the ones that bury the percentage of overall sales growth of alt-fueled vehicles in the red-inked margins of the balance sheets. Those statistics are the ones that have the asterisks and special notes that require trifocals to read.

What got me thinking about alt-fueled "progress" was the recent media coverage of slumping sales trends for hybrid vehicles in the last months of 2006. Wall Street said hybrid sales decline seemed to track the drop in fuel prices at the pump, at least up until December, when the prices started rising again. The Big 3, awash in that previously mentioned "red ink" clearly tried to spin a positive impression about their efforts to produce vehicles that will reduce our demand for all that foreign oil.

The media lapped up the hype and tried to show that slower sales and public demand for alt-fueled vehicles are a reflection of *'the public's declining stress'* about gas supplies, and not about the fact that alt-fueled vehicles cost thousands more than other (gas) vehicles that get 30 mpg coupled with the fact that infrastructure for filling alt-fueled vehicles is sparse and even non-existent in rural areas.

Drowning in red ink, the automakers (and their stockholders) are asking why they should spend billions of dollars on alt-fueled vehicle research and tooling when less than 3% of the buying public is even interested and almost no market exists for *used* alt-fueled vehicles? Huge labor reduction programs are already costing billions so why invest those "red ink" dollars in

hybrids or alt-fueled technologies when, at best, it's a highly competitive market for a (future) pay-off that may never materialize?

It is true that GM will bring out hybrids in four of their models in '07, including small-sized SUV's with the popular marques of Yukon and Tahoe, but they are not price-competitively with the *gasoline*-fueled Toyota and Nissan models that get 30+ mpg and are thousands less to purchase. Even rising fuel prices won't offset the initial price differences, let alone the used car trade-in values of alt-fueled "mileage" cars.

So, how can we sustain our efforts to push consumer demand for alternative energy transportation if the automakers won't step up? One thing is to lobby the politicians to designate government subsidies (i.e. this *is* a national priority, after all) for infrastructure at existing gas stations for CNG and electrical charging stations for the few electric cars that need a charge every 46 miles. Another would be to offer free (government subsidized) batteries to replace those that come from the factory; GM found out replacing \$2000 for batteries every 2 years in their EV-1 didn't appeal to potential buyers, just one of the reasons that all-electric vehicles have not been produced since 2002—and another reason used electrics will be unpopular with the public.

On the other hand, all that research on battery technology should still be valuable in the quest to find "hybrid" combinations that will demand longer-lasting storage devices. Let's not lose the lessons learned, even if the ultimate answer is "hybrid" and not *totally* "electric" because we need to continue to produce alt-fueled vehicles, even if our politicians don't value the long-term results. Its 'guns or butter' mentality all over again, only this time, that means 'defense dollars OR alt-fuel vehicle research' — it is not quite so clear-cut as economist Samuelson's equation.

So, while we continue to move the elephant in the room an inch at a time, our political leaders keep denying that our oil-driven economy is doomed. At the same time, Congress is asking for defense appropriations in the hundreds of billions to sustain our little war in the Middle East while our President asks *Brazil* to produce more ethanol—what's wrong with this picture? What about more U.S. dollars for *cellulose* ethanol right here at home?

Imagine what we could have accomplished for those same defense dollars if they'd been appropriated for alt-fuels research and infrastructure. Imagine also, what awaits our leaders of tomorrow, if we don't make alt-fueled vehicles attractive to the motoring public *today*, with the lame excuse that we needed the research dollars for maintaining our oil supplies *yesterday*? And, you probably guessed who those leaders of *tomorrow* will be who inherit this problem, right? Once again, it's our children's, children's, children.

Nicholas R. Hild, PhD., Professor, Environmental Technology Management, Arizona State University College of Technology and Applied Sciences, has extensive experience in Environmental Management in the southwestern U.S. Dr. Hild can be reached at 480-727-1309 and by email at DrNick@asu.edu.



Larry Olson, PhD.

It's All About Chemistry

Climate Change - The Verdict

On February 2, 2007 the International Panel on Climate Change (IPCC) released the first part of its Fourth Assessment Report, called Climate Change 2007: the Physical Science Basis. The other two volumes on Impact, Adaptation, and Vulnerability and on Mitigation of Climate Change will be released later this year. The Summary for Policy Makers is available at <http://www.ipcc.ch/SPM2feb07.pdf>.

The IPCC was organized in 1988 by the World Meteorological Association and the United Nations Environmental Program (UNEP) to periodically examine the best data available in the peer reviewed literature on the scientific and technical evidence for climate change, the economic and societal impact based on various modeling scenarios, and the range of potential responses. Hundreds of experts from more than 100 countries are involved in preparing the reports and more hundreds in the review process. The first Assessment report was published in 1990, followed by a second in 1995 and the Third Assessment Report (TAR) in 2001. It's fair to say that the four Assessment Reports provide a snapshot of the consensus opinion of the majority of the world's experts on this subject at that point in time.

So why did the release of the first part of the 2007 Report lead newscasts and land on the front page of

newspapers around the world in February? It's a matter of degree and tone. Compare some of the language in the TAR with that in the Fourth Assessment.

Third Assessment Report (2001)

- Most of the observed warming over the last 50 years is *likely* to have been due to the increase in greenhouse gases
- Balance of evidence *suggests* a discernable human influence on global climate
- Natural forcing alone is *unlikely* to explain the recent observed global warming

Fourth Assessment Report (2007)

- Most of observed warming since the mid 20th century is *very likely* due to anthropogenic increases in greenhouse gases
- Warming of the climate system is unequivocal
- Continued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would *very likely* be larger than those observed during the 20th century

There no longer remains a significant doubt in the minds of these experts that man is causing a discernable, significant impact on the global climate system. Atmospheric concentrations of carbon dioxide, nitrous oxide and methane are all far above their pre-industrial levels and continue their unabated increase. CO₂ concentrations before 1850 were about 280 ppm and are now 380 ppm. Most of this is due to fossil fuel combustion with a smaller contribution from land use changes. CH₄ has increased from 715 ppb to 1774 ppb while N₂O has gone from 270 to 319 ppb. Agriculture is the biggest anthropogenic source of these two greenhouse gases. To put this in perspective, in the last 650,000 years ice core data shows the natural range of CO₂ to have fluctuated between 180 and 300 ppm. At 380 ppm, with even the most optimistic scenarios showing CO₂ not leveling off till it reaches 450-500 ppm, we are in truly uncharted territory. How much can the oceans soak up? What is the effect of decreasing pH due to CO₂ dissolving in water? What is the impact of positive feedback loops such as decreasing solubility of gases in water as temperature increases or decreasing albedo from melting ice and snow? That is one reason for large uncertainty ranges in future climate models.

Various scenarios project a surface temperature rise of from 1.8 to 4.0 °C by the end of the century. By comparison, the twentieth century showed only a 0.6 °C increase. The impact of such a temperature rise is the subject of upcoming volumes of the Fourth Assessment Report. In the next issue, we'll take a look at what changes we might expect and what our options are. Stay tuned.

Larry Olson, PhD., Associate Professor, Arizona State University Environmental Technology Management Program. Dr. Olson holds a Ph.D. in Chemistry from the University of Pennsylvania, and is an environmental chemist with interests in remediation technologies and international env. mgmt. He can be reached at 480-727-1499, or by email at Larry.Olson@asu.edu



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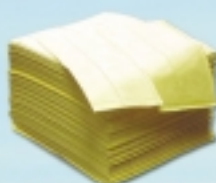
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Bloodborne Pathogens

Does my employee fall under the OSHA 29 CFR 1910.1030 Bloodborne Pathogen Protection Standard?
The answer is not always clear, but here is one approach.

by Miguel A. Rodriguez

This standard limits occupational exposure to blood and other potentially infectious materials since any exposure could result in transmission of bloodborne pathogens, which could lead to disease or death.



Acquired Immunodeficiency Syndrome (AIDS), Hepatitis B and Hepatitis C are serious concerns for workers exposed to blood and other potentially infectious materials. Bloodborne pathogen exposure may occur in many ways, but needlestick injuries have been the most common cause. Exposure may also occur through contact of contaminants with the nose, mouth, eyes, or skin.

The standard covers all employees who could be "reasonably anticipated" to face contact with blood and other potentially infectious materials as a result of performing their job duties. The term "reasonably anticipated" contact means *potential* contact as well as *actual* contact with blood or other potentially infectious materials. Here is a list of *some* workers who are at risk:

- Physicians, nurses and emergency room personnel
- Orderlies, housekeeping personnel, and laundry workers
- Dentists and other dental workers
- Laboratory and blood bank technologists and technicians
- Medical examiners
- Morticians
- Janitorial personnel
- Law enforcement personnel
- Firefighters
- Paramedics and emergency medical technicians
- Sewage treatment personnel
- Anyone providing first-response medical care
- Medical waste treatment employees
- Home healthcare workers

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occupational exposure, an employer must implement an exposure control plan for the worksite with details on protection measures. Engineering controls are the primary means of eliminating or minimizing employee exposure and include the use of safer medical devices. Work practice controls such as hand washing are stressed by the standard. Appropriate personal protective equipment must be used when necessary. The standard requires that the Hepatitis B vaccination be made available to all employees who have occupational exposure to blood. The standard also specifies procedures to be made available to all employees who have had an exposure incident.

Miguel A. Rodriguez, President of Hazard Prevention Institute, has 18 years of experience providing environmental, health & safety training and consultation services for major government and industrial facilities. Miguel can be reached at 520-887-0355 or by email at miguel@hazardprevention.com.



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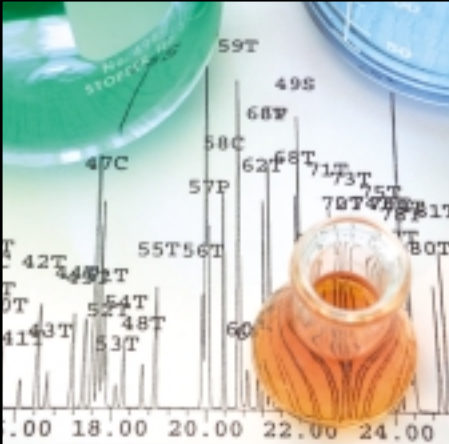
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Scholarships Awarded at GRR



Left to Right: Eddie Martinez, Laura Malone, Shahrzad Badvipour, Julie Hoskin, Pooja Nagrath, Lisa Culbert, Junbeum Kim, Manny Carpenter, and Amy Hutmacher Glancy.

EPAZ Scholarships

EPAZ awarded four scholarships and two mentorships at the Gatekeeper Regulatory Roundup. \$2,500 winners: Pooja Nagrath, Amy Hutmacher Glancy. \$1,000 winners: Shahrzad Badvipour, Junbeum Kim. Mentorship winners: Deborah Schadewald, John Whitney. To qualify students must be an undergraduate or graduate student in an env. program, be pursuing a career in the env. field, have a min. GPA of 2.5 making satisfactory progress, and be a full or part-time student for the 2006-2007 academic year.



Left to Right: Chuck Paulausky, Shahrzad Badvipour, Ashish Agrawal, Matt Tomanek, Fernando Alday, Mike Ford.

T-Bird ACHMM Scholarships

The Thunderbird Chapter of ACHMM awarded 3 scholarships and 1 mentorship at the Gatekeeper RR. Scholarships were for \$2,500, \$1,500, and \$1,000. John Benz of Env. Training Compliance Solutions donated a free training class to each ACHMM & EPAZ winner.

To qualify students must be pursuing an env. career, be an undergraduate or grad. student in an env. related program in Arizona, and maintain a 3.0 average. For more info. on the Thunderbird Chapter of the ACHMM, visit www.thunderbirdchmm.org.

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Welcome to another addition of Prospecting. This submittal is being prepared in the wake of conferences, tradeshow and a workshop that we attended and participated in as part of our grand effort to market our wares. All in all, the time and money we invested was well spent, although it's tough to quantify a hard return. During the course of these events, I had the opportunity on two occasions to talk to board members of the hosting associations about their event, how it came together and some of the difficulties they faced. Not surprising, in both instances the ongoing challenge of attracting good technical professionals and industry representatives was identified as the primary issue that will make or break an association gathering, whether it be a national meeting or a local monthly luncheon. There are a multitude of reasons for this and the dynamics of each association are going to be different and I'm not going to pretend to have the solution. But one common theme came up in my conversations that I will expand upon: sometimes industry people feel "hounded" by vendors pushing their products or services on them causing reluctance to attend the next gathering.

I'm not going to make this a "can't we all just get along?" thing. We are all professionals who understand the important roles industry representatives and vendors play in creating valuable associations. I am also not going to defend the vendors. Industry representatives have a valid point. What I will do is provide a few ideas to both sides.

To the vendors: do your selling before and after a particular event, not during. Send out mailings or emails to your network of prospects inviting them to and promoting the event, give your take on why the event is going to be great and how they can benefit. The association will appreciate this too. During the event, be respectful and remember that you are one of many vendors. Take good notes about relevant conversations and tid-bits learned during the outing and follow up diligently afterwards. It wouldn't hurt to thank the industry representatives for attending, without them it wouldn't be much of an event.

To the industry representatives: actively engage with the vendors up front. If there are exhibits, make the rounds early and invest a little time with as many as you can. Initiate contact and learn as much as possible about what is available in your market place. If you are interested in a vendors offering, say so and indicate a good time to follow up. If you are not interested, say so and move on. You won't hurt anyone's feelings and you might prevent an interruption later. Be open to learn more about the vendors you are already familiar with and get to know new ones. In any case, be clear about your level of interest and readiness to talk further. Also, it wouldn't hurt to thank the vendors for attending, without them it wouldn't be much of an event.

Thanks for reading and, as always, keep the suggestions coming.

Joe Holmes is National Director of Sales & Marketing with Environmental Data Management. Joe can be reached by email at Joe.Holmes@edm-usa.com



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