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DR. DANNY PETERSON: See pg 6

August / September 2006 Vol 4 No. 4

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Thank you to all readers who completed and returned the reader survey in the June/July issue. The response results are not "statistically significant," but of those that responded, **60% of Journal readers have contacted an advertiser in the past year**, and an average of **2.5 people read each copy of the Journal**.

Three survey responders were chosen at random to win the "Free 10 Gallons of Gas." Winners were: **Mark Hamlett**, TRW Automotive; **Cynthia Bain**, Legend Technical Services; and **Keith Konola**, Transwest Geochem. Thank you!

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COVER: FEMA RESCUE DOG AND SEARCH & RESCUE MEMBERS TAKE BREAK AFTER SEARCHING NEIGHBORHOODS IMPACTED BY HURRICANE KATRINA.
PHOTOGRAPHER: JOCELYN AUGUSTINO. PHOTO COURTESY OF FEMA.

From the Editor



We selected the cover photo for this issue partly because it relates to emergency management, which is the focus of Dr. Danny Peterson's article "The Changing Landscape" (which begins on page 6) and partly, of course, because we liked the friendly dog! Dr. Peterson's article, as we come up on the anniversary of the events of 9-11, discusses the evolution of the disciplines

of environmental management and emergency management, and how in today's changing world the disciplines must communicate with each other, and work together.

Company Focus Articles:

This issue includes the second in our series of "Company Focus" articles, this one focusing on ARCADIS. Our thanks to ARCADIS for their hospitality in giving us a tour of the Phoenix office, and providing the information for the article.

We would like to see a variety of business types included in this series, so if you would like to volunteer as the "Focus" for an upcoming issue, please email me (jimthrush@cox.net).

Never-ending plug for advertising:

Each issue gets "tighter & tighter" for space — that's a good thing, on one hand, but on the other we will soon need to expand to more pages. But before we can do that, potential advertisers please take note, we need to expand advertising some more. If you have been considering advertising, but put it off for one reason or another, now would be a great time to call!

Sincerely,

Jim Thrush, MS

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MAILING ADDRESS: Journal of Env. Management Arizona, 3145 E. Chandler Blvd, Suite 110-641 Phoenix, AZ 85048. Phone & Fax: 480-422-4430

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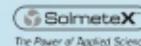
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Photo: Scene from ASU-Polytecnic Emergency Exercises, January 2006

The Changing Landscape

“There’s a battle outside and it is ragin’
It’ll soon shake your windows and rattle your walls
For the times they are a-changin’.”

Bob Dylan 1963

by Dr. Danny Peterson

The times are still a-changin as is the landscape of emergency and environmental management. These two critically important disciplines have grown tremendously over the past couple of decades, but they have grown through separate policy streams. Environmental issues of the day are no longer separate from disaster and emergency management issues. What is the picture below?



Is it an industrial accident releasing an Extremely Hazardous Substance? A fire resulting from a broken gas main

following an earthquake? Sabotage? Terrorism? Actually, it is ‘none of the above.’ This was part of an exercise at Arizona State University-Polytechnic in January of 2006. The scenario involved two dissident students protesting governmental incursion into the hallowed halls of academia. ASU-Poly hosts and maintains the Alternate State Emergency Operations Center. As part of the exercise scenario, a Radiological Dispersal Device (RDD) was placed next to the building. The material simulated was Cesium 137, a relatively easy to obtain radioactive material. The simulant was common flour. The device detonated during placement injuring the two perpetrators. The resulting response and recovery underscored many issues, but one of the foremost is the overlap of emergency and environmental management. The clean-up following such an event could easily result in an environmental nightmare.

This article will provide an analysis of the evolution of two policy streams which, while separate, must communicate with each other in response to and recovery from many contemporary disasters. It will also explore the developing overlap of environmental and emergency management, and look at what this trend suggests for the future.



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Emergency management as we know it today has developed over many decades, but its form is changing at an accelerating rate every day. Benjamin Franklin was one of the earliest contributors. He realized the need to be ready for fires and created the first fire department in Philadelphia in 1736 called the Union Fire Company. Throughout our rich American history, many challenges to the safety of our citizens have conspired to catalyze programs that provide readiness for emergencies and disasters. The Civil Defense Act of 1950 was passed in response to the growing threat of nuclear attack. The backbone of this Act was sheltering and citizen relocation. Over the following years, many separate federal agencies were created to prepare for and respond to potential emergencies and disasters. By the 1970's over 100 federal agencies were involved in activities relating to hazards, disasters, and/or emergencies. There were numerous parallel programs and competing policies, and much of the overlap in these various programs led to duplication of effort and responsibility. In the early 1970's, the National Governor's Association adopted this issue as an agenda item and recommended a coherent and cohesive consolidation of these separate yet related agencies. President Jimmy Carter responded by creating FEMA in 1979.

By 1990, FEMA had an established role in providing safety to American residents. FEMA had two faces—one that was public and another that was cloaked in the darkness of secrecy and National Security. There were still many shortfalls that ultimately were exposed during and after the response to Hurricane Andrew in 1992. Again, change was catalyzed and James Lee Witt, newly appointed to FEMA, rose to the challenge. The new reorganization in 1993 was highlighted with a new "all hazards, all phases" philosophy. The all phases meant that the government should be involved in each of the four phases of emergency management which includes mitigation, preparedness, response, and recovery. A greatly enhanced mitigation policy was created by establishing the Mitigation Directorate.

More recently, following the events of 9/11, it became evident that our general paradigm for readiness was flawed. We had the Department of Defense that protected us from enemies abroad, the Department of Justice to protect us from criminals within our borders, and FEMA to provide disaster relief. We weren't adequately prepared for enemies abroad attacking us within our shores. The very rapid response to the aftermath of 9/11 was the creation of the Department of Homeland Security and the demotion of FEMA one level from Cabinet level status to a Directorate under DHS.

Let us now look at the evolution of environmental management. This term has many connotations and uses. In the academic program at ASU-Poly, environmental management is part of a technology program that addresses such issues as remediation of contamination, pollution prevention, control technologies, sustainability, and response to hazmat incidents. As Dr. Larry



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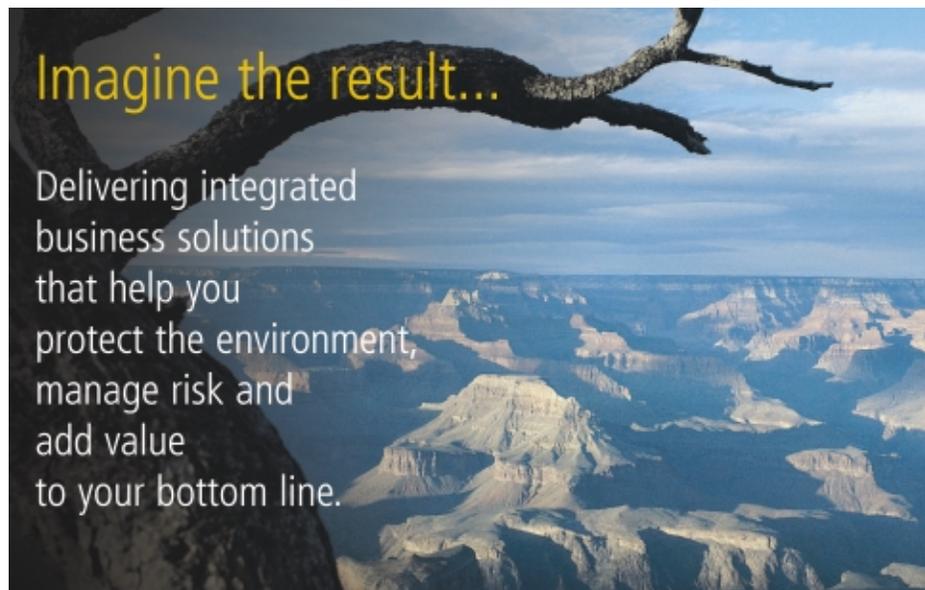
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Olson, a professor in the program, would say, "It's all about chemistry." Other environmental programs focus on environmental engineering, environmental and earth sciences, and ecology. These all share one basic tenet: promoting the inhabitability of the earth today and for future generations. These programs draw heavily from the natural science disciplines.

The 1960's were a decade of increased environmental awareness. The culture of this decade encouraged voicing strong convictions. The vestiges of technological progress were manifest in serious examples of pollution throughout the country. Probably one of the single greatest catalysts for elevating

Continued on page 12



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Company Focus:
ARCADIS

As part of our continuing series of "Company Focus" articles highlighting Arizona businesses working with environmental issues, Darin Webb, JEMA Managing Editor, writes about his recent visit with Phoenix ARCADIS Staff

By Darin Webb

The first things you notice when you walk in to the ARCADIS office in Phoenix are the orange salamanders. They're everywhere. Salamander statues stand at attention throughout the lobby. Employees display bean bag orange salamanders on their desks or strewn across the tops of their computer monitors. There's even a blow-up, beach-ball style orange salamander resting comfortably on a shelf in the Site Evaluation and Remediation department.



PHOTOS: At Top, Left: Drilling work at an ARCADIS client site. Photo courtesy of Layne Christensen Company. At Left: Lisa Luther and Bernie Frist review land development plots.



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It's a fitting logo, to be sure. ARCADIS Business Development Manager Bernie Frist tells me that "the salamander, equally at home on land or in the water, symbolizes lasting quality and ecological balance in the environment." If that wasn't apt enough, ARCADIS' role in the environmental industry mirrors the salamander's role in the animal kingdom: a sort of utility infielder.

ARCADIS, for its part, operates four distinct fields out of its Phoenix office: Site Evaluation and Remediation, Environmental Permitting and Planning, Operating Facilities Management, and Land Resources. Though, as Frist admits, "everybody's in sales."

I had a chance to go down to ARCADIS and see these fields in action, to see just how this salamander works.

Kenda Pollio manages the division of Environmental Permitting and Planning (EPP). Pollio, along with the majority of the EPP staff, comes from Greystone Environmental, a company that recently merged with ARCADIS. Pollio explains that her division deals with questions like, "Where's the best place to put a transmission line?" and "What are the environmental ramifications of siting lines in a given area?"

"In the 70's, you could draw a line from point A to point B and you're done. That's where the line is," says Pollio. "It's not like that anymore."

It's so not like that anymore, in fact, that ARCADIS has set up open houses in which members of the public can attend and receive detailed GIS maps of their homes in relation to a given project. EPP's goal is to give the public as much information as possible. "We're not trying to build support, we're trying to build consensus," Pollio tells me before admitting that she hates corporate sound-bites. "If the public can say, number one, I know how you're building the project and,

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number two, I understand why you're building the project, then we've done what we can." If there's still public resistance, "it becomes a NIMBY (Not In My Backyard) thing," at which point there's not much ARCADIS can do. No one wants a transmission line in their backyard. However, with the GIS maps, people often find that their house isn't as close to the line as a two dimensional overhead map might make it appear.

"You can do everything right, but if the public feels deceived, you can't go through with the project," Pollio says.

"We take all the technology and all the information we have directly to the public. No one else is taking GIS to the public."

But when it comes to environmental planning, even the soundbite hating Pollio admits, "honesty is the best policy."

After being shown the GIS system (apparently my house isn't near any of ARCADIS' projects), we walk over to a man hard at work photoshopping transmission lines into a landscape. "Here's what the site looks like now," he says, pulling up a scenic picture of forest, mountains, and rocks. "And here are some proposals." He pulls up the same picture, modified to display transmission towers of various shapes and sizes, scrolling through them like some customizable feature on a video game.

EPP take these sorts of things to the cities to let them decide the aesthetics. It's all part of ARCADIS' plan to build consensus.

Leaving the orange salamanders that habit ARCADIS' EPP wing, we walk over to the Site Evaluation and Remediation (SER) area to find, not surprisingly, more orange salamanders. We step into the office of Dr. Peter Kroopnick, tasked with explaining what SER does. We had already gotten a brief description from Rob Mongrain, the business practice leader, but we wanted a different perspective. On the wall behind Kroopnick is a poster of an old-timey prospector, complete with long beard, hat, and pick-axe, staring at a computer generated 3D rendering of a mineshaft, with the caption, "Times have changed." I immediately think of Pollio's assessment of 70's transmission line planning.

"What do you do," Kroopnick asks rhetorically, "with people who don't want to be 'project managers'? People who just want to be technical?"

"Well, other than money, what those people really want," he answers, "is to be challenged." And that, he explains, is the jurisdiction of SER: "coming up with ways to keep us technical

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folks challenged."

I ask how he's being challenged right now, and he tells me about his current project, a remediation

effort that must be undertaken while simultaneously exploring the extent of the plume. He then tells me about the four steps for any remediation process: "assess it to death, formulate a plan, execute the plan, and close." This project is in the execution stage, but given the breadth of the project, it's also still in the assessment stage.

"We're working on both ends," claims Kroopnick. "We're pumping the source and we're working around the edges. And we're still exploring the extent of the plume on the north-east side."

The source of the contamination is suspected to be from a defense contractor in the 40's and 50's, Kroopnick says. "They didn't have any of the environmental regulations we have today." I glance back at the poster, a sort of synecdoche for the entire office, and think about all the time we have to spend simply cleaning up the past.

We make a brief tour of the land resources area, where, according to Frist, "the staff takes properties from feasibility to entitlement." We then walk back to Frist's office where he explains ARCADIS' fourth local division, Operating Facilities Management (OFM). "Its thrust is more of traditional EHS compliance," he claims. "We're growing rapidly in the region."

His evidence of this rapid growth? All the new employees. Scott Brown was recently hired as Vice President and Area Manager. Geoff Swett, the Regional Director of OFM, is another recent addition to the ARCADIS team. Frist himself is also a recent hire, having been with the company only two months. Likewise, the Greystone merger took place just last year. ARCADIS also recently acquired Blasland, Bouck & Lee (BBL). So not only have times certainly changed, they're about to change even more. I just hope BBL likes orange salamanders.



PHOTOS:
Above, Right: Joe Gregory (on right) demonstrates the GIS Station to Darin Webb.
Right: Kenda Pollio speaks with community members at a recent public open house.





Michael C. Ford, Attorney

Regulatory Developments

The Long, hot summer for Clean Water Law

It's been a watershed summer already for the Clean Water Act regulatory program at both the state and national level. Here's a quick review of the key recent developments, some thoughts on what the rest of the summer might bring, and my recommendations for your summer reading list.

AZPDES Primacy

Another chapter in the AZPDES primacy saga ended on June 8, 2006, when the Ninth Circuit denied (9-6) the petition for rehearing in the *Defenders of Wildlife v EPA* case that had been filed by EPA, Arizona and the industry group intervenors.¹ The denial order is by no means blasé boilerplate, however, as several judges filed opinions (a somewhat unusual practice), including an "impassioned dissent ... accusing the panel majority of all manner of judicial perfidy" by Judge Kozniski. This dissent accuses the majority of being "tone deaf" to Supreme Court precedent; "tramp[ing] all over the Fish and Wildlife Service's ... reasonable interpretation of the ESA"; "deliberately creat[ing] a square inter-circuit conflict with the Fifth and D.C. Circuits"; and "ignor[ing] at least six prior opinions of our own court." Judge Berzon, the author of the 2005 decision to vacate, also filed a rebuttal to Kozniski's "baseless attacks" "to try to set the record straight." These companion pieces are a great read - real page turners which I picked up and couldn't put down!

While the denial order left standing last summer's blockbuster decision vacating AZPDES primacy (2-1) on Endangered Species Act grounds,² EPA, Arizona and the industry intervenors subsequently filed motions to stay the court's mandate (delay the effective date of the decision vacating the AZPDES program), which the Ninth Circuit granted on June 15, 2006. The stay is for 90 days to allow the agencies/intervenors to petition for Supreme Court review. If granted, the stay will

continue until the Supreme Court decides the case. We should know by the end of the summer whether the Supreme Court will hear the case.

Extent of CWA Jurisdiction

On June 19, 2006, the Supreme Court released a shocking sequel to its series of CWA "navigable water" jurisdiction cases entitled *Rapanos v. U.S.*³ The exhaustive, complex decision includes 5 opinions, consumes over 100 pages, and will be the topic of scholarly articles for years to come. The Cliffs Notes version is that while it is clear the Corps' "hydrologic connection" test for jurisdiction was invalidated, the appropriate jurisdictional criteria remain unclear, since there was no majority opinion. The Scalia plurality (4 Justices) would allow CWA jurisdiction only over

relatively permanent, standing or continuously flowing bodies of water "forming geographic features" that are described in ordinary parlance as "streams[,] . . . oceans, rivers [and] lakes." The phrase does not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall.⁴

Scalia's opinion would obviously significantly curtail CWA jurisdiction, particularly in arid states such as Arizona. Kennedy's concurring opinion concludes that waters that have a "significant nexus" to navigable-in-fact waters are jurisdictional. The extent of the limiting impact on CWA jurisdiction of Kennedy's effects-focused test is uncertain due to its dependence on case-by-case factors and a subjective, eye-of-the-beholder type criteria. The appropriate analysis will have to be sorted out by the lower courts and the agencies.

The lower courts did not take long to weigh in. On June 28, a district court in Texas applied *Rapanos* to a case involving the discharge of oil to an intermittent, unnamed tributary 40 miles and two intermittent tributaries removed from a traditionally navigable water.⁵ As the first post-*Rapanos* decision, it is a must-read. To spoil the ending, the court dismissed the government's complaint against Chevron. The court looked to both Scalia's opinion and Kennedy's opinion, which it characterized as ambiguous, as well as precedent from the Fifth Circuit (where there is significant jurisdiction-limiting precedent), and concluded that the intermittent tributaries at issue were not jurisdictional, the discharge at issue did not reach jurisdictional waters, and therefore that there was no violation of the CWA.

The Corps then announced on July 5, 2006, its intent to issue joint guidance with EPA clarifying the agency's position on CWA jurisdiction in light of *Rapanos*. This guidance may well be out before August, adding to what has already been a long, hot summer for CWA regulation.

1 Available at [http://www.ca9.uscourts.gov/ca9/newopinions.nsf/89A7E2DFD9B04377882571860077DDDF/\\$file/0371439o.pdf?openement](http://www.ca9.uscourts.gov/ca9/newopinions.nsf/89A7E2DFD9B04377882571860077DDDF/$file/0371439o.pdf?openement).

2 Available at [http://www.ca9.uscourts.gov/ca9/newopinions.nsf/BD7EC45CE5FFA89B88257065005746B3/\\$file/0371439.pdf?openement](http://www.ca9.uscourts.gov/ca9/newopinions.nsf/BD7EC45CE5FFA89B88257065005746B3/$file/0371439.pdf?openement).

3 126 S. Ct. 2208, 2006 WL 1667087 (available at <http://www.supremecourtus.gov/opinions/05pdf/04-1034.pdf>).

4 *Id.* at *13 (citations omitted).

5 *U.S. v. Chevron*, available at <http://rapanos.typepad.com/chevron.pdf>.

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.

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Phoenix, AZ 85024



Stay Safe

Emergency Egress

Chuck Paul ausky, CHMM

It's well known that after John Wilkes Booth shot President Lincoln, he leaped from the President's box to the stage, where he tripped and fell, breaking his leg. What's not well known is what he tripped over. According to some first-hand accounts, as John Wilkes Booth was trying to make his exit, he tripped over the American flag.

Egress is the way out of a room or building. In the event of an emergency, egress sounds like a simple thing. Leave the building! However, from the viewpoint of OSHA, egress involves a number of very critical requirements. Imagine needing to get out of a strange building in a hurry and having doors blocked, or not well-lit, or not marked as an exit.

In order to comply with some of the requirements of Subpart E of the OSHA standards, ask yourself these questions:

- Are all exits marked with an "EXIT" sign and illuminated by a reliable light source?
- Are exit signs provided with the word "EXIT" in lettering at least 6 inches high and the stroke of the lettering at least 3/4-inch wide?
- Are exit doors side-hinged?
- Are all exits kept free of obstructions and unlocked on the inside?
- Are doors, passageways, or stairways, that are neither exits nor access to exits and which could be mistaken for exits, appropriately marked "NOT AN EXIT" or some other words indicating actual use?
- Are the directions to exits, when not immediately apparent, marked with visible signs, and well-lit?
- Are at least two means of egress provided from elevated platforms, pits, or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?
- Are there sufficient exits to permit prompt escape in case of emergency?
- Are special precautions taken to protect employees during construction and repair operations?
- Are all exit routes arranged to avoid high-hazard areas?
- Is the number of exits from each floor of a building, and the number of exits from the building itself, appropriate for the building occupancy load?
- Where ramps are used as part of required exiting from a building, is the ramp slope limited to 1 vertical inch per horizontal foot?
- Where exiting will be through frameless glass doors, glass exit doors, storm doors, etc., are the doors fully tempered and meet the safety requirements for human impact?

Do not rely solely on this list. Always refer to the OSHA standard and applicable NFPA and other local fire and building code requirements when determining compliance for your facility.

Chuck Paul ausky, CHMM, is President of CP Safety & Environmental. He is also President of the Arizona Chapter of the Academy of Certified Hazardous Materials Managers and is a member of the Chandler Chamber and AZ Small Business Association Safety Committees. Chuck can be reached at: 480-694-1975, or by email at cpaulausky@cpsafety.net.

Peterson:

The Changing Landscape

Continued from page 7

environmental concerns to the status of a public problem was the publication of *Silent Spring* by Rachel Carson in 1962. Her best seller focused on the damage pesticides were doing to nature, specifically decimating the bird populations. In 1970, we witnessed the first Earth Day which involved 20 million concerned Americans in peaceful demonstrations. Later that year, President Richard Nixon submitted a reorganization plan creating the EPA that was officially christened on December 2, 1970. The mission was to:

- Establish and enforce environmental protection standards
- Conduct environmental research
- Provide assistance to others combating environmental pollution
- Assist the Council on Environmental Quality in developing and recommending to the President new policies for environmental protection

While many events were occurring around the world that were related to the hazards of chemical production and use, a watershed event occurred in 1984 when a Union Carbide plant in India experienced an accident releasing methyl iso cyanate into the environment, killing thousands of people. This event helped catalyze the passage of SARA Title III, the Emergency Planning and Community Right-to-Know Act. In addition, EPA created its Chemical Emergency Preparedness and Prevention Office (CEPPO).

The EPA was given considerable legal authority and responsibility by Congress through EPCRA, the Safe Drinking Water Act (SDWA), the Clean Water Act (CWA) as amended the Oil Pollution Act of 1990, and the "Superfund" law. Included were the authorities and responsibilities to respond to emergencies involving spills of oils, hazardous substances, and certain radiological materials. In addition, the President gave EPA some responsibilities relating to terrorism including assisting the FBI in hazard identification following an incident as well as assisting with environmental monitoring, decontamination efforts, and long-term site cleanup. An example of EPA involvement in cleanup of a post terrorism incident was the Hart Senate building after the anthrax attack.

In 2004, the Office of Emergency Management was created, replacing the former CEPPO and integrating the Oil Spill Prevention Program and the Superfund Emergency Response Programs. The goals of OEM are to: prevent and prepare for chemical emergencies; respond to environmental crises; inform the public about chemical hazards in their community; and share lessons learned about chemical accidents and incidents of natural origin as well as those of terrorist origin.

As can be seen, there are two related yet distinct policy streams that have led to our current readiness posture—the emergency management stream that is embodied by FEMA and the more technically oriented policy stream embodied by EPA. The products of these separate policy streams are experiencing a greater overlap every day.

Some of the contemporary issues facing us today include the following:

- Growing energy shortages
- Decreasing supply and increasing demand for fresh water
- Global warming which influences weather patterns and weather disasters
- Potential pandemics such as the avian flu
- Growth of special needs populations due in part to the graying of America

In addition, many environmental laws have encouraged the Just-in-Time inventory management which threatens economic continuity because of the domino theory—if one major link in a production chain is disabled by a natural or technological disaster, the viability of the entire chain is threatened.

All of these issues have found champions in disparate disciplines. One can realize, however, that each has reaching implications across multiple disciplines. Certainly there is a growing applicability to both environmental concerns as well as implications for emergency management. For example, a severe heat wave struck Chicago in 1995. It was estimated that at one point, 49,000 households were without electricity due to a shortage of electrical energy. Several hundred Chicagoans died as a direct result from of disaster.

We can look at the most recent disaster, Hurricane Katrina, to challenge our readiness. This event underscored the disconnections among the four phases of emergency management: mitigation, preparedness, response, and recovery. The levees failed but so did the crisis leadership.



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The Hurricane Pam exercise, conducted in 2004, was eerily similar to Katrina, yet many shortfalls in our readiness that were identified were never fixed. A second Pam exercise was planned in 2005 but was cancelled reportedly due to lack of funding. While we can elaborate on the details of Katrina, suffice it to say that this disaster was both a catastrophic natural disaster and an environmental disaster. The aftermath saw not only destruction of the infrastructure, but chemical and biological contamination as well. Cleanup will require a concerted and cooperative effort from both emergency management and environmental specialists.

What trend does this suggest for the future? Probably a greater overlap between emergency management and environmental management. The monthly Department of Labor reports that the occupations providing the greatest growth during the period of 2004 - 2014 include Hazardous Materials Removal Technicians (31.2%) and Environmental Engineers (30.0%). Emergency Management Specialists comes in at 22.89%. These statistics are pre-Katrina.

Because of the overlap in these distinct, yet related, disciplines we see a greater need for creating managers who can understand and effectively speak to both camps—emergency management and environmental management. The emergency



Above: Simulated victim from RRD exercise

management field has grown mainly from social, political, and public policy science. The environmental management field has grown primarily from roots in the natural sciences.

It is important that we cultivate leaders and specialists in the future who have education and training in both areas. Science without policy is folly, but policy without regard for the natural sciences is dangerous. We must inoculate our future protectors with a blend of natural as well as social science.

The photo (below, left) is a simulated victim from the RDD exercise. He has been decontaminated and stabilized for transport to a medical facility. The environmental cleanup, however, of the surrounding area contaminated with Cesium 137 will go on for a long time.

The times they are a-changing. Along with this is the changing lay of the land for emergency and environmental management.

Danny Peterson, PhD., is a Professor at Arizona State University, where he teaches environmental management and emergency management courses. He can be reached at 480-727-1100, or by email at DrP@asu.edu.

phoenix Public Transit Receives Perfect Score

The City of Phoenix Public Transit Department received a score of 100% for Implementation of an Environmental Management System (EMS). Phoenix Public Transit was one of 10 transit agencies across the United States that participated in an EMS training and assistance project sponsored by the Federal Transportation Administration (FTA). This was a 29 month effort that included training, mentoring, and evaluation by the Center for Organizational and Technological Advancement at Virginia Tech.

A five person team from Phoenix Public Transit and its operating contractor ATC (now Veolia) attended four training sessions, each followed by an implementation period in which the team involved members from throughout the organization to establish an ISO 14001-compliant EMS. Employees from the shop floor to upper management worked on improving management of significant environmental aspects that included:

1. Reduction of energy use that resulted in approx. \$34,000 annual savings.
2. Implementation of paper recycling (recycled 15,590 pounds in 15 months).
3. Purchase of five new aqueous-based parts washers, projected to save \$53,000 in solvent recycling over five years.
4. Implementation of a new hazardous materials purchasing policy.
5. Review of waste stream identification and disposal practices.

A member of the Arizona environmental community, Rob Barnett from Ping, lent his expertise in helping to conduct an internal audit of the EMS. Phoenix Public Transit used his insights to better their program.

Members of the Virginia Tech team evaluated the success of Phoenix Public Transit's implementation of the EMS in August 2005. The team assessed the degree to which Phoenix Public Transit had initiated each the requirements of the ISO 14001 standard. Two years of hard work and attention to detail resulted in the perfect score.

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Associations Pages

Valley Forward



Valley Forward to Celebrate Environmental Excellence

For information, call (602) 240-2408 or visit www.valleyforward.org.

Valley Forward's Environmental Excellence Awards program – Arizona's oldest and largest competition of its kind – will be held on October 13, 2006 at the new Phoenix Convention Center. More than 600 business and civic leaders throughout the state are expected to attend the event, which has become known as the "Academy Awards" of the environmental community.

Held in partnership with SRP, the program recognizes significant contributions to the environment in 22 categories, including buildings and structures, site development and landscape, open space and connectivity, art in public places, environmental technologies, environmental education/communication, environmental stewardship (SRP Award), and livable communities.



First-place winners will receive the handcrafted, sand-etched glass Crescordia award, named for the Greek term, "To Grow in Harmony." Valley Forward will also confer its most prestigious honor, the President's Award, on an individual or organization that has had an exceptional impact on the environmental quality of the Valley. In addition, a maximum of two awards of merit per category may be presented.

These awards are highly sought by companies both large and small, government agencies, cities and towns, design professionals, educators, media representatives, artists, technicians and others.

*Diane Brossart,
President*



American Society of Safety Engineers

Southern AZ Chapter

For information on Meetings and Training: visit <http://southaz.asse.org>

The Southern Arizona chapter of the American Society of Safety Engineers (ASSE) is pleased to announce the slate of officers for 2006 – 2008 who took office on July 1, 2006. The new President is Chuck Gessner, Risk Management Specialist at the National Optical Astronomy Observatory. Tom Wilson, Department of Transportation Risk Management Coordinator with the City of Tucson is the new President-Elect. The new Secretary is Shari Di Peso, Safety and Health Administrator with Arizona's G&T Cooperatives. Incumbents continuing to serve the Chapter are Gerry Cooley, Loss Control Consultant with SCF of Arizona as Treasurer, Mark Grushka, Bio Safety Officer at the University of Arizona, as Delegate to the Society House of Delegates and Brandy Kadous, Risk Management Specialist, City of Tucson, Member-at-Large.

Outgoing officers, President David Baker, Safety Supervisor, Tucson Electric Power and Secretary Edward Collette, Loss Prevention Officer, Pima County Public Works, have been wonderful in making this transition a smooth one.

Our 2006-2007 year will start with the joint Southern Arizona Safety Council Meeting at 8:30 a.m. on August 15th at Granite Construction, 4115 East Illinois Street, Tucson. The main speaker will be Lt. Col. Doug "Odie" Slocum of the Arizona Air National Guard who has developed a program that looks at human factors in regard to the safety side of error reduction, while doing more (and better) with less.

We hold a lunchtime meeting the second Tuesday of the month from 11:30 AM to 1:00 PM at the Kino Community Center, 2805 East Ajo Way, Tucson. Our next regular meeting will be on September 12, 2006.

*Shari Di Peso,
Secretary*



AZ Chapter Semiconductor Environmental Safety & Health Association

Contact Information:

www.seshaonline.org

The 2nd quarter local SESH chapter meeting was hosted by the Center for Solid State Electronics Research at ASU. Topics of presentation at this meeting included: New HAP Rule, Media Relations for Crisis Planning and ASU EHS Programs. The chapter meeting was well attended by area semiconductor and electronic company personnel.

The SESH steering committee is currently working on the details for a one day mini-conference planned for the early part of the 4th quarter. More information will be forthcoming on this event. It will be a great opportunity to stay abreast of current EHS issues and solutions. Professional certification credits will be offered at this conference.

Participation in SESH Arizona chapter activities can assist you in staying up-to-date on new regulatory compliance issues, important process safety information, and can provide insight into possible solutions to many of the environmental, health and safety challenges present in the high technology industries. Information and membership applications can be obtained at www.seshaonline.org.

*John Bucciarelli,
President*





Bob Estes,
President

The Southern Arizona Environmental Management Society (SAEMS) is off to an exciting new year! The new Executive Committee for the 2006 – 2007 fiscal year was installed at our June 28 meeting in Tucson. **Bob Estes (President)** is a Senior Environmental Scientist with URS Corporation. He first joined SAEMS in 2002, served as Secretary in 2004-2005 and President-Elect in 2005-2006. **Shari Bauman (Vice**

President) is the Laboratory Director at Turner Laboratories, Inc. She has served as the 2005-2006 SAEMS Communication Coordinator, the 2006 RCRA Seminar Co-Chairperson, and participated in the planning of the 2005 RCRA Seminar. **Sarah Sillman (Secretary)** is the Team Leader for the Health, Safety and Environmental Department at Honeywell. She has been actively involved in SAEMS since 1997, including the planning committees for both the RCRA and P2 seminars, as well as acting as the chair of the Earth Day Committee for several years. **Korky Vault (Treasurer)** was elected in 2005 and is continuing in that capacity for a second year. She joined SAEMS in 2004 and has also been active with the RCRA, P2 and Gatekeeper seminar committees in 2005 and 2006. **Jeff Christensen (President-Elect)** is the Hazardous Waste Supervisor for the University of Arizona Department of Risk Management and Safety. He has been involved with SAEMS since 1987, including support of the RCRA, P2, and Gatekeeper seminars. **Norma Lopez (Communications Coordinator)** is an Environmental Engineering Administrative Specialist and an asbestos inspector with the Tucson United School District. She has been a SAEMS member since 2002 and a committee member of RCRA since 2003.

This year is the twentieth anniversary of SAEMS' founding and the new board has committed to making this a memorable year for the organization. I am honored to have this chance to lead the board as we move forward with the group's goals and objectives!

SAEMS



VISIT OUR WEBSITE AT
WWW.SAEMS.ORG

SAEMS MONTHLY LUNCHEON MEETINGS HELD ON THE LAST WEDNESDAY OF THE MONTH STARTING AT 11:30 A.M. AT:

THE MANNING HOUSE
450 W. PASEO REDONDO (N. OF CONGRESS ON GRANDA) TUC., AZ

LUNCHEON TOPICS:

AUGUST 30: To Be Announced



Peter Kroopnick,
President

Mark your calendar for the 2006 AHS Annual Symposium to be held this September 13-16 at the Glendale Civic Center. This year's focus is "Water & Water Science in the Southwest—Past, Present, & Future." In addition to our usual technical sessions and poster presentations, the event will feature three plenary sessions, including one conducted by Rita Pearson, former director of ADWR, entitled, "What are the Odds that Arizona Will Achieve a Sustainable Water Supply?" Workshop topics

include technical writing for professionals, stream restoration, land subsidence monitoring, and drought issues. Field trips are planned to the ASU Decision Theater and Aqua Fria National Monument. Please visit our website at www.azhydrosoc.org for registration forms, a complete topic listing, symposium details and updates, and sponsorship opportunities.

Monthly chapter meetings are generally held the second Tuesday of the month, although we are currently on summer hiatus. Regular meetings will resume in October. Please check our website for some special speakers and activities this fall.

Arizona Hydrological Society



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



Chuck Paulausky,
President

We have some great programs coming up for the monthly ACHMM/EPAZ meetings, including a special program by Dan Roe, Executive Director AZSERC. In November, Dan will be providing an update and overview of the SARA Tier II reporting requirements. This will be a great refresher for those who have done it before, and training for those who are reporting for the first time.

Please check out the other offerings, and note that there will not be a meeting in August.

Don't miss the **ACHMM 2006 NATIONAL CONFERENCE** being held on September 17-20, 2006 at the Omni Orlando Resort at ChampionsGate, in Orlando, Florida. "The Wonderful World of Hazardous Materials Management- Expect the Unexpected," includes several days of technical sessions and special events, plus networking/professional development opportunities. The conference is open to anyone wishing to attend. For more information about the Conference, go to: www.kuce.org/achmm.

Also, be sure to watch for information about this year's ACHMM Thunderbird Chapter Scholarship applications.

The ACHMM/EPAZ monthly lunch meetings will be at the Radisson Hotel, 427 N. 44th Street in Phoenix, 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

Aug 2006, No Meeting - Summer Break

Sept 14, 2006 Luncheon Meeting: New Manifest Reqs- Jami Davis, PSC

Oct 12, 2006 Luncheon meeting: RoHS Basics and Application- Pat Collins, Isol a Laminates

Nov 9, 2006 Luncheon meeting: Tier II Reporting Update & Overview- Dan Roe, AZSERC

Arizona Environmental Strategic Alliance



The Alliance:
WWW.AZALLIANCE.ORG

arizona resource exchange:
WWW.AZREX.ORG

Upcoming Events The Alliance will host a combined State Performance Track / National Performance Track / Alliance Membership meeting on April 3rd, 2007. Representatives from EPA Region 9 and ADEQ will speak on the benefits of state and National Performance Track (PT) membership, and representatives from the Alliance will speak on the value of dual membership in PT and the Alliance. (If you send me your email address, we will keep you informed on this event.)

Officer Election Alliance members recently elected Larry Person, Senior Environmental Coordinator with the City of Scottsdale, to the position of Vice Chairperson of the Board.

Something you may not know about the Alliance: Most of you know that Alliance members go through a rigorous qualifying process, but what you may not know is that, after a business becomes a member, there is an annual process that ensures ongoing commitment to environmental leadership. Members are currently completing their "Annual Reports" which must include examples of leadership characteristics in 3 categories: Conservation and Pollution Prevention, Education and Mentoring, and Organizational Environmental Policies.

AZREX The Alliance plans to broaden the work of our waste exchange program, and is expanding beyond just a website (www.azrex.org) to include one-on-one assistance to businesses. If you would like help to find an end-user for a waste stream, please call us at 480-422-7392.

Rob Barnett,
Chairman



AAI



www.azind.org

AAI is pleased to announce that its 4th Annual Energy Conference will be held on November 9, 2006 at the Pointe South Mountain Resort. This conference will include presentations on various aspects of energy production and delivery in Arizona along with expert speakers from many parts of the industry. Go to AAI's web page or contact Kathy Hackett at 502-252-9415 for more information.

AAI's EHS Committee will hold its September breakfast meeting on Wednesday September 13th at the Sheraton Phoenix Airport Hotel at 1600 South 52nd Street in Tempe. AAI's EHS Committee continues to monitor Air, Waste, Remediation and Water Issues affecting manufacturers in Arizona through three subcommittees. To participate on these subcommittees, contact Jeff Homer at 480-441-6672.

Jeff Homer,
EHS Committee
Chairman



EPAZ



Our July meeting took us to Flagstaff. We started with a tour of the Rio de Flag Water Reclamation Plant, then had our Luncheon at the Material Recycling Facility (MRF), and then moved on to our tour of the MRF, finally ending our day with a network mixer at the Beaver Street Brewery. During the luncheon we discussed starting a Northern Arizona EPAZ Chapter. EPAZ invited the local environmental community to join us to discuss the how, when, where of doing just that. We encourage those interested in getting involved as an officer of the Northern Arizona Chapter as well as those interested in participating as a member of the chapter to let us know. We need the feedback of the local folks regarding the chapter and suggestions for meeting topics to get the chapter moving in the right direction.

We did not have a meeting in August, but have scheduled Jami Davis from PSC as our speaker for our September 14th luncheon meeting. Jami will present a discussion about the New State Manifest Requirements.

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 www.epaz.org for more details regarding upcoming meetings and our monthly mixer location or contact Eddie Martinez at 602-708-9179.

Eddie Martinez,
President





Sustainability and Sustainable Development

Nicholas R. Hild, PhD.

NEW RULES!

The 'S' Word Is Off-Limits!

OK, listen up! Everybody in the “news” media seems to be using the word “**sustainability**” now, evidently in an attempt to show they are hip to the latest buzz. Print media reporters slip in the “**S**” word(s) at every opportunity, and the TV talking heads and political prognosticators are just as bad, in 30 second “news breaks” that proclaim how the economy is growing ‘*sustainably*’ and the new Fed Bank Chairman is ‘*sustaining*’ efforts that Alan Greenspan began in post-9/11 interest rate adjustments. Even the President (yes, *that* Prez) likes to use the ‘**S**’ word to ensure us that the killing fields will be “*sustained*” until such time as the Iraqis can “*sustain*” a democracy without our help.

The ‘**S**’ word situation has gotten so bad, that it finally dawned on me that we need to do something about it. So, with apologies to Bill Maher’s *New Rules* on *Politically Incorrect*, here’s *my* suggestion: we need a **New Rule** of our own. And here’s why: sportscasters use the ‘**S**’ word in its various conjugations, to tell us how athletes we idolize are able to “*sustain*” their athletic prowess without the help of enhancement drugs and that our teams (i.e. pick one: hockey, baseball, basketball, soccer; etc) will “*sustain*” their efforts to bring home the gold, at all costs (sans head butts, please!).

The state of our economy is usually where the ‘**S**’ word is heard most. Former VP (yes, *that* VP) Al Gore was the first high level public (?) servant to use the words, ‘*economy*’ and ‘*sustainable*’ in the same sentence. Unfortunately, his eloquence may have started a trend that seems to be diluting the real meaning of “*sustainability*” for those of us in the (environmental) trenches who are trying to make it a lifestyle choice.

And, yes, I know the ex-Veeep has recently jumped on the environmental bandwagon by producing a *pseudo*-documentary film about global warming, but we need to recognize, it’s a fine line he’s walking between ‘*sustainability*’ concerns and using the film as a platform for another run to the White House. Trust me: it won’t be long until he once again links

‘*sustainability*’ with ‘*economic growth*’ strategies together and the film will just become a backdrop for campaign promises of jobs in the *new* alternative fuels industry that he will claim he invented.

What this is leading to is this: we need to make a **new rule** about overuse and misuse of our key “**S**” word(s). We need to make the use of the terms, ‘*sustainable*,’ or ‘*sustainability*’ without the word, *environment* in the same phrase, **off-limits!** Otherwise, if we don’t do something about this, the whole world will tune us out when we try to make (environmental) sustainability a priority for our children’s future. And, after all, that’s the bottom line. So, here is the first step to making a **New Rule**:

The Preamble

The use of the ‘S’ word(s) is hereby declared off-limits to reporters, economists, ‘in-crowd’ celebrities, politicians, wonks and wannabes, groupies seeking airtime fame and fortune (even in 15 second sound bites), and talking heads of all persuasions!

Of course, *making* a New Rule is important but *enforcing* it by publicly identifying the offenders every time we hear the ‘**S**’ word misused, is critical to our success. We need to write letters to the editors or send notes of discouragement to the network or stations where the offense occurred, declaring to readers and viewers that we won’t take this abuse quietly. So, here’s an idea— let’s levy ‘*finest*’ that are appropriate for the ‘**S**’ word offenses—I suggest sending a bar of soap (Mother Jones-organic-seal-of-approval-only, of course) along with your letter(s) of complaint to be used by editors for publicly washing the offending person’s mouth out. Why, just think of the good publicity our *sustained* efforts will get, if we do this *en masse!*

So what, you may ask, is the **new rule** to combat this egregious and continuous **slap on our ‘S’**...? I’m glad you asked...here it is:

NEW RULE!

It’s a punishable offense to publicly use ‘S’ words in ways that do not benefit the (environmental) future of our children’s, children’s, children... QED!

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.

It's All About Chemistry

Nitric Oxide: A Most Remarkable Molecule

What a difference one electron makes! The nitric oxide molecule, NO, has only one more electron than molecular nitrogen, N₂, and one less electron than molecular oxygen, O₂. But since N has five valence electrons and O has six, the NO molecule has an odd number of electrons and cannot complete an octet around each atom. The fact that NO is a free radical makes it very reactive and a key player in atmospheric chemistry. Surprisingly, in the late 1980s, nitric oxide was also found to play a critical role in biochemistry. Nitric oxide can trigger vasodilation, which helps control blood pressure and digestion. It is important in the brain chemistry of learning, in immune responses, and anti-tumor activity. So startling were these findings that Science magazine named NO its "Molecule of the Year" in 1992. I am especially intrigued by the biochemical applications because my Ph.D. dissertation in the mid 1970s focused on nitric oxide complexes of metalloporphyrins, such as the heme group in hemoglobin. At that time, everyone was interested in how molecular oxygen bound to hemoglobin, and we studied nitric oxide complexes simply as a surrogate to oxyhemoglobin. No one imagined that the body actually produced such a toxic gas and depended upon it to allow cells to communicate with one another. It is a classic case demonstrating why fundamental research is so important. You can't always predict where new discoveries will lead.

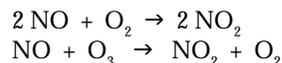
NO can enter the atmosphere

from both natural and anthropogenic sources. Besides denitrification reactions from nitrates and ammonia in soil, the primary source of atmospheric NO is from combustion sources that heat up N₂ and O₂ molecules in air. The following reaction is endothermic, meaning it requires heat in order to drive the reaction to the right.

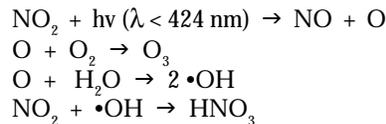


Fortunately, there is very little NO produced at room temperature in this reaction, but lightning, biomass burning, or fossil fuel combustion provide the elevated temperatures needed to produce NO. This covers transportation sources, electric power generation, industrial boilers, etc.

NO itself is a colorless gas that is stable in a vacuum, but in air it quickly reacts with O₂ or ozone to produce nitrogen dioxide, NO₂.



Thus, the NO concentration in air is not a static value, but is constantly changing. Typically, we refer to NO_x, meaning the sum of the concentrations of NO and NO₂. Both NO and NO₂ are highly irritating and toxic gases (TLV for NO = 25 ppm; NO₂ = 3 ppm). But more importantly, NO₂ is a reddish brown gas. That means that unlike NO it absorbs visible light. The photolysis of NO₂ during daylight hours produces NO and O atoms, neither of which is stable. The NO can continue to react with O₂ to produce more NO₂ while the O atom reacts with O₂ to produce ozone or with water to form hydroxide free radicals which can then produce many of the compounds found in photochemical smog, such as nitric acid.



These oxidizing species (NO, NO₂, O₃, •OH, HNO₃) and many others are characteristic of photochemical smog. And they all trace their existence to that simple little molecule, NO, and its odd electron.



Larry Olson, PhD.

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

Where Are They Now?

Yesterday's Environmental Managers, Today

How two former EH&S Managers are still influencing the industry, even after they've left.

by Darin Webb

Eddie Martinez



Sometimes the relationships you develop in an industry are so strong, you can't stay away, even after you think you've left. Case in point: Eddie Martinez, a former EH&S manager who has remained active as the president of EPAZ (the Environmental Professionals of Arizona) even after leaving the EH&S industry to concentrate on his real estate career.

He started in the environmental industry after working as a safety coordinator for Frito-Lay for over 13 years. When a former coworker helped him get a new position as an EH&S Manager at Oberg Industries, he didn't really know the environmental field at all. "When I asked the Arizona Department of Environmental Quality about training, they told me about EPAZ," Eddie says. EPAZ, an all-volunteer organization of which he is now president, has been an invaluable resource to him. "When I started participating in EPAZ, we met once a quarter and there were eight people in attendance." Now, eight years later, with over 180 paid members, EPAZ hosts monthly meetings and mixers, co-hosts an annual 2 day conference and a golf tournament with proceeds from each event donated to the EPAZ scholarship program. The secret to EPAZ's success? According to Eddie, it's all in the board of directors. "The board is great," Eddie says modestly, reciting a list of names that reads like a veritable who's-who in the Arizona environmental industry. This year, EPAZ donated over \$7000 towards scholarships and helped raise over \$6300 to help the Louisiana Department of Environmental Quality with Environmental clean up and training due to Hurricane Katrina.

Despite keeping close ties to the industry through EPAZ, and receiving several environmental job offers, Eddie has moved on to real estate, working full-time with Keller Williams - Ahwatukee Foothills. "The market has slowed down a little, but it's still good for me," he says with a smile. "I want to invest in Eddie Martinez and I know that sounds selfish, but I have to look out for my family." The flexibility of his job enables him to not only remain

active in EPAZ, but also spend more time with his family and ride his Harley. "I'm coaching my son's football team this year, and my daughter's playing Volleyball. I'm having a lot of fun." He's also grateful for his wife of 13 years, Julianne. "I couldn't have been doing what I'm doing without her support," he says. "She's a great wife."

As for whether he ever wants to return to the environmental field full-time, Eddie says, "Never say never, but I'm very happy where I am right now."

Eddie can be reached at (602) 708-9179 or by email at eddiem4241@cox.net. You may also visit his website: www.eddiesellshomes.com.

Rich Polito



Rich Polito is perhaps best known for his role in starting the Small Business Environmental Assistance Program, a Maricopa County program that helps businesses achieve environmental compliance. Last year, he retired after ten years at Maricopa County in order to concentrate on building his dream home in the mountains of Showlow.

But Rich couldn't stay away from the business world for long. He recently started back up Sunterra Surfaces, a landscaping and design company that specializes in epoxy and stained floors, and that recently introduced an overhead storage rack.

Rich calls on his background in the environmental



Photo: Rich's ONRAX above car storage system

assistance field to make sure all of Sunterra's products are environmentally friendly. His Showlow dream home also uses his environmental awareness along with the latest technology to create an extremely energy efficient residence.

Rich welcomes hearing from his old environmental contacts, and he can be reached at 623-516-2878 or by email at rpolito@cox.net.

news briefs

L.A. Chemical to Pay \$10,000 in Penalties for Acid Spill

❖ ADEQ Director Steve Owens announced recently that L.A. Chemical will pay \$10,000 in civil penalties under a Consent Judgment for a February 2005 spill of nearly 300 gallons of hydrofluorosilicic acid that shut down part of downtown Phoenix for several hours and sent several people to the hospital for treatment.

"Any spill of dangerous acid is extremely serious," Owens said. "This situation was especially unacceptable because part of downtown Phoenix had to be shut down to deal with it and the health and safety of a number of people were put at risk."

The spill occurred when a container of hydrofluorosilicic acid leaked inside a semi-truck operated by L.A. Chemical that was traveling through downtown Phoenix. The acid left a trail on city streets starting at 7th Ave. and Grant Ave. and continuing north over the 7th Ave. Bridge to Monroe St. The truck stopped near 5th Ave. and Madison after the leak was discovered.

Police reports show that an officer on the scene observed that the container was not secured and also had sustained impacts on four sides. Though it was company policy to secure acid containers to the truck, the driver told the officer he had failed to comply.

Hydrofluorosilicic acid is harmful by ingestion, inhalation, or skin contact. Because of the risk from the spill, the Phoenix Fire and Police Departments closed off the affected area and several surrounding blocks in downtown Phoenix for nearly 12 hours until approximately 10 p.m. to reduce the possibility of exposure and allow for clean-up of the acid. Sixteen people plus the driver were treated at local hospitals for possible exposure to the acid.

The Consent Judgment is subject to Court approval.

AZ Dept Of Commerce, Int'l Trade and Investments Div. Announces Enviro-Pro 2006

❖ The Arizona Department of Commerce, International Trade and Investment Division, announced recently that they will be participating at the largest and most important environmental exhibition in Mexico: Enviro-Pro 2006.

The exhibition will be held in Mexico City from September 27 - 29, 2006. Environmental businesses attending will have an opportunity to meet potential buyers, agents, and/or distributors for products and services with the added support of the U.S. Foreign Commercial Service. There will be an entry fee.

For more information contact Fernando Jimenez at 602-771-1157, or by email at Fernando@azcommerce.com.

MTS Awarded Medical and Bio-Waste Contract

❖ MTS Medical Waste Management, a Division of Milum Textile Services, recently announced that the State of Arizona has awarded it a statewide one-year DOA Spirit Contract, with four (4) years of renewal options. MTS will provide regulated medical waste pickup, transport, treatment and disposal of medical and biohazardous waste. MTS has been in business in Arizona for 50 years. For information contact Edward Petrullo at 602-253-5173. MTS maintains a website at www.milumtextileservices.com.

New Location for ADEQ Northern Regional Office in Flagstaff

❖ ADEQ Director Steve Owens announced that ADEQ has moved its Northern Regional Office in Flagstaff.

The new location is:

1801 W. Route 66, Suite 117, Flagstaff, AZ 86001.

The telephone numbers are:

928-779-0313, toll-free: 877-602-3675, fax: 928-773-2700.

"The new location will enable ADEQ's Northern Regional Office to better serve the people of northern Arizona," Owens said.

The new location includes room for public meetings and educational workshops, as well as additional parking and easier access.

\$340,000 in Penalties for El Paso Natural Gas for Air Quality Violations

❖ ADEQ Director Steve Owens announced recently that El Paso Natural Gas Company (EPNG) will pay \$340,000 in penalties for air quality violations in Mohave County and hazardous waste violations in Pima County.

Under a Consent Judgment with ADEQ, EPNG will pay \$225,000 for asbestos violations that occurred during a pipeline renovation and removal project near Topock in Mohave County in 2004. The violations included failure to notify ADEQ prior to generating regulated asbestos-containing materials, failure to properly inspect the pipeline prior to renovation or removal activities and failure to prevent emissions.

In addition to the penalty, ADEQ previously required EPNG to clean up asbestos-containing material and surface soils at EPNG's Mohave County facility. The company has also agreed to obtain and maintain a certification in the Asbestos Hazardous Emergency Response Act for the employees responsible for pipeline renovation or removal.

"Because exposure to asbestos can lead to significant long-term health effects, activities involving asbestos must be conducted carefully and in accordance with the law," Owens said. "The penalty reflects the serious nature of the violations that occurred during this renovation project."

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EPNG will also pay \$115,000 for hazardous waste violations, including transporting, accepting and storing flammable sludge, used solvent and other hazardous waste at the company's Tucson facility without the necessary permit or procedures.

ADEQ inspectors discovered the violations in 2004. "These activities were occurring without training, a contingency plan or an emergency preparedness plan," said Owens.

He added that EPNG has corrected the violations at the Mohave County and Tucson facilities and has since taken action to improve its compliance. "We are pleased with the commitment that El Paso Natural Gas Company is making to environmental protection at its Arizona operations," Owens said.

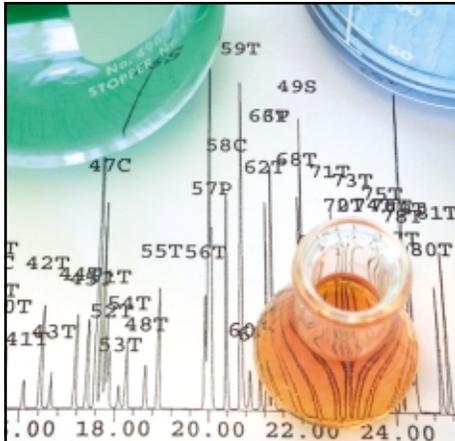
Project to Reopen Two Wells at State Superfund Site in Tucson

ADEQ Director Steve Owens announced recently that ADEQ is working with a municipal water company in northwestern Tucson to build a drinking water treatment facility and reopen two drinking water wells that have been closed for nearly a year.

ADEQ and the Flowing Wells Irrigation District in the northwestern part of Tucson have begun construction of a treatment facility to remove harmful volatile organic compounds (VOCs) from the water in the wells. Two nearby drinking water wells will be reopened once the facility becomes operational and removes the contaminants.

Flowing Wells, which serves about 15,000 customers, is located within the larger Miracle Mile Water

Quality Assurance Revolving Fund (WQARF) site, which ADEQ has been investigating for groundwater contamination. The WQARF program, also known as the state Superfund program, identifies and cleans up contaminated groundwater and soil throughout the state. "Reopening these wells is a priority for ADEQ and great news for local residents," Owens said. "ADEQ will continue to work closely with the Flowing Wells Irrigation District to ensure that community members receive clean, safe drinking water."



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Inaugural Meeting of the Northern Arizona EPAZ Chapter
 See EPAZ pg 16. *Left to Right:* Mannie Carpenter, Tom Curry, Robert Tate, Patrick Paul, Andy Ewing, Craig Beeson, Bob Hoffa, Steve Rottas, Scott Donovan, Peter McCullough, Lisa Culbert, Ellen Ryan, David Kirchner, Eddie Martinez

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Editorial :

A Contrasting view: Global Warming

By Darin Webb

Our last issue featured an interview by Mike Ford with Dr. Robert C. Balling, a professor of Climatology at Arizona State University. Dr. Balling downplayed a relationship between global warming and “extreme weather episodes,” he called Al Gore’s movie *An Inconvenient Truth* “science fiction,” and he concluded by touting the benefits associated with atmospheric CO₂. While Balling is no doubt an expert in the climatology field, his presentation of the facts may have been, as some of our readers have pointed out, somewhat misleading.

Though, as Balling writes, “no conclusive evidence exists to link extreme weather episodes to increased greenhouse gas concentrations,” many scientists do find a link between global warming and extreme weather episodes. Last year, MIT released a study correlating rising temperatures with increased hurricane intensity.¹ The theoretical groundwork for this very correlation was laid over a decade ago. Scientists at Harvard University and Columbia University have linked global warming to glacial earthquakes.² The National Center for Atmospheric Research stated, “The hurricanes we are seeing are indeed a direct result of climate change” and that the wind and warmer water conditions that fuel storms forming in the Caribbean are “increasingly due to greenhouse gases. There seems to be no other conclusion you can draw,” states Greg Holland, director of the Mesoscale and Microscale Meteorology Division. “The large bulk of the scientific community say what we are seeing now is linked directly to greenhouse gases.”³

On the note that Gore’s movie is “science fiction,” most of Balling’s climatology colleagues disagree. The Associated Press polled 100 top climatologists and found that, of those who had seen the movie, all said Gore got the science “mostly right.” William Schlesinger, dean of the Nicholas School of Environment and Earth Sciences at Duke University, called the movie “excellent” and claimed that Gore “got all the important material and got it right.” Robert Corell, chairman of the Arctic Climate Impact Assessment, a worldwide group of scientists, said of the movie, “I could find no error.”⁴

As for the possible benefits of atmospheric CO₂ on the global food supply, it’s still open for debate. While many scientists agree with Balling that CO₂ can benefit the global food supply, a study by the University of Illinois found that an increase in crop yields based on projected CO₂ levels would be modest or non-existent.⁵

While Dr. Balling’s skepticism is certainly worth considering, much of the scientific community disagrees with his analysis.

1 Emmanuel, Kerry. “Increasing Destructiveness of Tropical Cyclones Over the Past 30 Years” *Nature* August 2005: Vol. 436, pp. 686-688

2 Göran Ekström, Meredith Nettles, Geoffrey Abers. “Glacial Earthquakes” *Science* 24 October 2003: Vol. 302, no. 5645, pp. 622-624

3 Holland, Greg. *The American Meteorological Society’s 27th Conference on Hurricanes and Tropical Meteorology*, April 2006.

4 Borenstein, Seth. “Scientists Give Gore Movie Five Stars for Accuracy” *Associated Press* June 27, 2006

5 Long, Stephen P. et al. “Food for Thought: Lower than Expected Crop Yield Stimulation with Rising CO₂ Concentrations” *Science* 30 June 2006, 1918-1921.

PROSPECTING:

For Environmental
Business

Sales in Today’s Modern
Business World

Welcome to another edition of “Prospecting.” This time we take a look at what makes developing business so tough today and how tactics must change to accommodate the pace of business.

Professionals at all levels are continually asked to do “more with less” and everyone is busier than ever. I think we all can agree that modern work life has evolved into an extremely chaotic and demanding environment and people with decision making responsibility are under much pressure. Add that EHS departments are, many times, impacted by cost cutting or downsizing events that can intensify the complexity and demanding nature of these positions. Then consider modern technology continually bombarding managers with email, voice mail and cell phone calls, and you can begin to see how tough it might be for someone on the outside to squeeze through and be heard.

Personnel in decision-making roles today go to great lengths to protect themselves from un-wanted interruptions and it’s important for sales people to face facts, a sales call is usually an interruption. “Gatekeepers,” caller ID, and email security systems allow people to carve out unwanted information and receive only the messages they want and that are valuable to their daily life. This creates an extreme challenge for the business development person trying to make their message heard, even if they have the offering of a lifetime. How can your value proposition be delivered and alluring amongst the mass?

It better be an offering of a lifetime! Not really, but it has never been more important to be sure you know your prospects and are very sure that you have something they need. Not something they want, something they need. Just because you believe in your product or service doesn’t mean others share your enthusiasm. The effort spent to make certain your offering is a good fit with the needs of your potential client will result in much more productive sales efforts. Go to lengths to understand the business problems that face your prospects and be open minded enough to know when your product or service doesn’t serve them well. It’s important to know when to realize that your time might be better spent on

other, more promising opportunities. Also, when you’ve determined that you can deliver a wallop, be prepared with organized tactics to get your message to the right people in an efficient, concise, respectful and methodical manner.

Once you’ve determined that a prospect is “qualified,” the goal is to entice

Continued bk on pg 25



Joe C. Holmes

Continued from previous page

with real value, not a pitch. Don't try to persuade. Approach the situation as an opportunity for both parties to meet each other's business objectives and communicate as colleagues. Stay away from conversations that focus on you. Rather, establish imagery that shows what their job might be like by working with you. In my experience most people don't want to hear how great your company is, they want to find out (quickly) how you can make their job easier.

All of this points to the need for detailed, deliberate, well organized and planned sales and marketing initiatives based on good prospect information and lots of research into the companies you want to do business with. This approach and these tactics are not new, but have never been more important than today when your message can so easily be lost in the sea of information crossing a manager's desk each day.

What does this mean to the modern sales person? They have to be better. Not by making more calls or sending more emails, but by conducting more research, more planning and creating strategies which will result in *better* calls to *better* prospects. What does this mean for sales managers? They must be flexible to the changing marketplace and continually focus on up-to-date, fresh resources for their people in the field. Case studies, recent project successes, recent product developments, news, training etc, should be continually made available to the sales & marketing team in order to maintain a valuable delivery of your message.

As always, I run out of space before running out of stuff to say. Maybe that's a blessing. Thank you for reading and please 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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