

JOURNAL OF **Environmental Management** **ARIZONA**

NEW ADVERTISER
THE JOURNAL WELCOMES
Arizona Waste Oil Service, Inc.

Practical and Current Information for Environmental, Health and Safety Professionals

**ALSO INSIDE:
NEWSBRIEFS,
ASSOCIATION PAGES,
COLUMNS, & MORE !**

**EPA EXTENDS
AUDIT POLICY TO
NEW OWNERS
MICHAEL C. FORD, ATTORNEY
pg 10**

**ERE CHARITY GOLF
TOURNAMENT RAISES
THOUSANDS FOR FOUNDATION
FOR BURN & TRAUMA pg 19**

**CROSSWORD
CHALLENGE -
IT'S BACK! pg 14**

EMPLOYEE SAFETY AWARENESS

CHUCK PAULAUSKY, CHMM pg 8

PILLARS OF SUSTAINABILITY

**PRESENTATION EXCERPTS
FROM P2 SEMINAR pg 6**



Lawrence Odle

MARICOPA COUNTY APPOINTS NEW AIR QUALITY DIRECTOR pg 18



Tools of the trade

We've built our reputation on a foundation of strong professional capabilities, honed project coordination and communication skills, and extensive statewide experience.

Our environmental services are a key part of that foundation. They include:

- Groundwater monitoring and restoration
- Technical oversight for remedial actions
- Fuels/PCBs/VOCs investigation/remediation
- Contaminant transport modeling
- Site assessments and property transfers
- Regulatory compliance/permitting

CLEAR CREEK ASSOCIATES
Practical Solutions in Groundwater Science

In Phoenix:

6155 E. Indian School Rd., Suite 200, Scottsdale, Arizona 85251
 (480) 659-7131, (480) 659-7143 fax

In Tucson:

221 N. Court Ave., Suite 101, Tucson, Arizona 85701
 (520) 622-3222, (520) 622-4040 fax

www.clearcreekassociates.com

Offering comprehensive, hydrogeologic services in five integrated areas:

*Groundwater Development
 Groundwater Modeling
 Hydrogeologic Investigations
 Environmental Services
 Mining Support*

Phone: 520-745-4523
 Fax: 520-790-9926

P.O. Box 19149
 Tucson, AZ 85731-9149

Locally owned and operated for over 20 years
 We pay top \$\$ for used oil
 Fleet of trucks, including vacuum tanker service
 Transformer oil & mineral oil recycling service
 Spent antifreeze and oil filter recycling service
 Wastewater recycling service
 Tank cleaning service
 24-hour emergency response
 Multi-state service
 Fully insured

Arizona Waste Oil Service Inc.

AWOS

CLEAN HARBORS ENVIRONMENTAL SERVICES

Rely on Clean Harbors

Clean Harbors, North America's leading provider of environmental services, is at the forefront with a commitment to customers in all industries throughout Arizona.

Diverse Services:

- Waste Transportation & Disposal
- CleanPack® Laboratory Chemical Packing
- Field Services
- Emergency Response
- Household Hazardous Waste Collection
- Industrial Cleaning & Maintenance Services

CleanHarbors
 ENVIRONMENTAL SERVICES®

Arizona Service Center • 602.258.6155 • www.cleanharbors.com



**Save
The Date!**

Gatekeeper Regulatory Roundup

Fifth Annual Gatekeeper Regulatory Roundup 2009

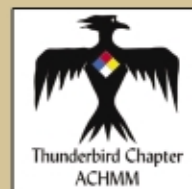
February 17 - 18, 2009

Chaparral Suites Resort
5001 N. Scottsdale Road
Scottsdale, Arizona

For more information
please visit:
www.epaz.org
www.thunderbirdchmm.org

**Join EPAZ, ACHMM and
AZSERC for a
2-day conference for all
Environmental, Health, Safety
and Emergency Management
Professionals!**

**Featuring:
Prominent Presenters,
Keynote Speakers,
Local & National Regulatory
Agencies, Great Networking
with Hundreds of your
Environmental and Emergency
Management Colleagues.**



Sponsored By:



From the Editor



The Journal frequently reports on Arizona environmental seminars and conferences, which serve a valuable function to the community, both educational and on a personal, networking level. In this issue, our report on the recent P2 seminar in Tucson, sponsored by SAEMS and ADEQ, titled "Pillars of Sustainability" dives a little deeper than usual into the technical content

of the presentations and discussion. Seminar presenters were invited to submit excerpts of one or two highlights from their presentation materials, which have been collected into an article (see page 6). These excerpts include interesting and valuable information, and for those readers who did not attend the seminar, may give you a feel for what you missed!

Environmental Calendar?

Would you like to see the Journal bring back an "environmental calendar"? In the first year or two of publication the Journal published an environmental calendar in every issue, providing dates & contact information for upcoming Arizona environmental seminars and events. Although much of that same information is available in the text of articles, Association Page articles, and advertisements, it is no longer organized into one convenient location. If this is a feature you would like to see again, send me an email or call and let me know. If there is enough response, we will start up the calendar again.

Upcoming Seminars & Training

Several organizations are sponsoring upcoming seminars or training and have notices in this issue of the Journal. Be sure to read their ads — and let them know you saw it in the Journal! (Gatekeeper/RR - pg 2; Monitored Natural Attenuation course - pg 19; and the Apache Nitrogen Products Wetlands Seminar and Cookout - pg 23, and ASU EH&S Seminars - pg 4).

Sincerely,

Jim Thrush, M.S. Environmental Management
Publisher & Editor

LEGAL DISCLAIMER Information presented in the Journal of Env. Mgmt. AZ originates from a variety of sources presumed to be accurate and complete. However, due to the rapidly changing nature of regulations and the law and our reliance on information provided by various sources, we make no warranty or guarantee concerning the accuracy or reliability of the content of the Journal. Readers are encouraged to contact authors, agencies, advertisers, and companies directly for verification and/or clarification. Material is for informational purposes only, and should not be considered as legal or professional advice. Consult your own legal counsel or environmental consultants with questions regarding your safety or environmental compliance matters.

WARNING: Serious legal, environmental, and/or safety consequences can result from non-compliance with environmental and safety regulations and standard safety, environmental, and professional practices.

Journal of Environmental Management Arizona

EDITORIAL: Publisher & Editor: James Thrush, M.S. Env. Management
jimthrush@cox.net or call 480-422-4430 x42

COLUMNISTS: Regulatory Developments: Michael C. Ford, Bryan Cave LLP;
Sustainable Development: Nicholas R. Hild, PhD., ASU; It's All About Chemistry:
Larry Olson, PhD., ASU; Prospecting: Joe C. Holmes, ATC.

SUBSCRIPTIONS: Subscribe at ehshomepage.com or call 480-422-4430 x42.

RATES: FREE to Qualified EHS Professionals. Others, call 480-422-4430.

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

ADVERTISING Call 480-422-4430 x42. The Journal is published 6 times a year.

Copyright © 2008 by the Journal of Environmental Management Arizona. All rights reserved.

PSC



PSC is the single source for industrial cleaning services:

- Hazardous Waste Disposal
- Labpack
- Household Hazardous Waste Services
- Soil Excavation/Remediation/Decontamination
- Vacuum Tankers
- Roll-off and Vacuum Bins
- Super Suckers and Jet Rodders

PSC provides nationwide industrial services, environmental services, transportation and container services, delivered by thousands of skilled and committed professionals throughout North America.

www.PSCNow.com

What does PSC stand for?

People, Service and Commitment. As the industry leader, we don't just promise these qualities. We live them every day.

PEOPLE. PERFORMANCE. PRIDE. PROMISE.
THIS IS PSC NOW.

PSC
2003 W. McDowell
Phoenix, AZ 85009
602.252.1186

Environmental, Health & Safety Seminars

Fall 2008 / Spring 2009
Course Schedule,
Class Descriptions,
& Registration Fees,
are available online @
www.poly.asu.edu/seminars/



OSHA, DOT, and EPA COURSES

Courses provided include:

- HazWOPER (40-Hr. & 8-Hr. Refresher)
- Hazardous Materials Transportation (49 CFR & IATA, Initial & Refresher)
- RCRA Regulation & Compliance (Initial and Refresher)
- Clean Air Act Regulatory Compliance
- Water Quality Laws & Requirements
- Emergency Response Technician Level
- Emergency Response to Terrorism

Register online @ www.poly.asu.edu/seminars/

Please contact Hal Berkowitz (480) 727-1323 for information on site specific courses. For registration information please contact Denise Kolisar @ (480) 727-1825

Our 20th year of providing regulatory compliance training courses.

ASU ARIZONA STATE
UNIVERSITY
POLYTECHNIC CAMPUS

JOURNAL OF Environmental Management

ARIZONA

October / November 2008

Volume 6 Number 5

Contents

FEATURES AND ARTICLES

- 6** **PILLARS OF SUSTAINABILITY**
EXCERPTS OF THE P2 SEMINAR
- 8** **EMPLOYEE SAFETY AWARENESS**
COWS OR CROWS?
CHUCK PAULAUSKY, CHMM
- 18** **MARICOPA COUNTY HIRES NEW**
AIR QUALITY DIRECTOR

COLUMNS

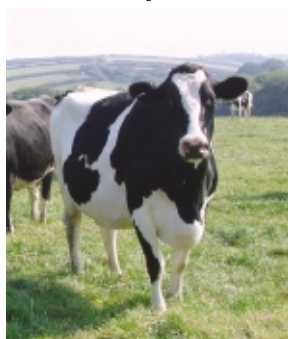
- 10** **REGULATORY DEVELOPMENTS**
EPA EXTENDS AUDIT POLICY TO NEW OWNERS
MICHAEL C. FORD, ATTORNEY
- 16** **SUSTAINABILITY AND SUSTAINABLE**
DEVELOPMENT
" . . . IT TAKES A VILLAGE . . . "
NICHOLAS R. HILD, PHD.
- 15** **IT'S ALL ABOUT CHEMISTRY**
BIODIESEL FROM WASTE OIL
LARRY OLSON, PHD.
- 17** **PROSPECTING: FOR ENV. BUSINESS**
A MESSAGE FROM YOUR PROSPECT
JOE C. HOLMES, ATC ASSOCIATES

DEPARTMENTS

- 4** **FROM THE EDITOR**
- 20** **NEWS BRIEFS**
- 23** **ADVERTISERS INDEX**
- 12** **ASSOCIATIONS PAGES**
- 14** **CROSSWORD CHALLENGE**



Pillars of Sustainability
Page 6



Safety Awareness: Cows or Crows?
Page 8

DISASTER HAPPENS
WATER MOLD FIRE CONTENTS
ASBESTOS BIO HAZARD HVAC CLEANING

EMERGENCY RESTORATION EXPERTS

Phoenix: 480.507.9082 623.773.1111
Tucson: 520.743.4500
Statewide: 877.746.3443

ER
mergency
estoration
Experts

ERexperts.net
"Disaster Relief, Guaranteed."



RECOVERING TODAY'S RESOURCES FOR A CLEANER TOMORROW

We specialize in the treatment of non-hazardous liquid waste through physical separation, chemical treatment, biological treatment and sludge de-watering technologies.

- Waste disposal solution that is both economical and environmentally sound.
- On-site laboratory for profiling waste / sample technicians.
- After treatment, reclaimed water is returned to Arizona.
- Manage liquid waste for thousands of clients including some of Arizona's largest companies.
- Ask us about a cost effective alternative to your current waste disposal method.

liquid
ENVIRONMENTAL
SOLUTIONS

Call Us Today
602-278-3442
www.liquidenviro.com

COVER IMAGE: ARIZONA PLATEAU. PHOTO COURTESY OF STUDIO7DESIGNS.COM.



Sustainable P2 Seminar: Pillars of Sustainability

by Journal Staff

The Southern Arizona Environmental Management Society (SAEMS) and the Arizona Department of Environmental Quality (ADEQ) co-hosted the annual bi-national Pollution Prevention Seminar in Tucson on September 24th. The theme for the seminar this year was, "Pillars of Sustainability".

The Seminar defined the basic principles of sustainability as balancing a strong economy, protection of the environment, and social equity in order to achieve an improved quality of life for ourselves and future generations. The three "pillars" of sustainability are

economic, environmental, and social.

Presentation topics included sustainability basics; a panel discussion on ethanol; sustainability at the local community in Nogales, Sonora; communicating "green" effectively; corporate sustainability from theory to action; how green should you be?; water conservation - the big picture and local solutions; green construction; "how-to" basics of retro-commissioning facilities; how to make recycling work; and buying green.

To give our readers a sampling of presentation highlights, the Journal asked seminar presenters to provide one or two highlights from their presentations. Several of these excerpts are presented below.

● How to Make Recycling Work

Greg Natvig from Beacon Group and Beacon Secure spoke about taking advantage of the "bank shot" companies can get by having their confidential documents shredded.

Presentation Excerpt:

First, confidential document shredding helps companies comply with applicable laws such as HIPAA, Gramm Leach Bliley and FACTA. They also protect confidential information about their customers, employees and company from being disclosed. Second, shredding confidential documents recycles tons of paper! In the Tucson area, Beacon Secure shreds 3 million pounds of paper each year, saving 5,000 cubic yards of landfill space. 56 percent of all the paper used in the US is recycled each year.

Greg can be reached at 520-622-4874 x157, or by email at GNatvig@TheBeaconGroup.org.

● Rainwater Harvesting, A strategy for water conservation, stormwater management and sustainable development in the City of Tucson

Ann Audrey, from the City of Tucson, Office of Conservation and Sustainable Development, spoke on water conservation, the big picture and local solutions.

Presentation Excerpt:

By following a small number of simple water harvesting principles you greatly improve the efficiency and effectiveness of this increasingly important strategy. The most important principle is to start harvesting water at the "top" of the site (the highest elevation of the site) and work your way down from there installing multiple small water harvesting catchments throughout the site. This allows you to manage water in small increments and increases soil moisture throughout the site.

Ann can be reached at 520-837-6932, or by email at ann.audrey@tucsonaz.gov.



Designed to Blend; Built to Last

The world over, ARCADIS is known for designing sustainable solutions that harmonize infrastructure with environment to provide life's necessities. Now and into the future.

As a partner, we are committed to generating sustainable, environmentally responsible solutions that improve the quality of life for everyone. As an industry leader, we balance needs with nature, providing total facility management services that protect and enhance the human habitat today... and tomorrow.

www.arcadis-us.com

Imagine the result

ARCADIS
Infrastructure, environment, buildings

● Ethanol Panel Discussion

David Schaller, from the City of Tucson, is the Sustainable Development Administrator in the Office of Conservation and Sustainable Development. David was one of three panel members in the discussion on ethanol.

Presentation Excerpt:

While corn ethanol is widely promoted as a domestic alternative to imported oil, this attribute alone does not make it a



David Schaller, City of Tucson Office of Conservation and Sust. Development, speaks on Ethanol

sustainable energy option. By at least ten different consensus indicators of sustainability most commercial ethanol production in the United States is non-sustainable. A national effort now underway to establish baseline practices that can be used to certify the sustainability of biodiesel production might also have applicability to the production of corn ethanol.

David can be reached by email at daschaller@yahoo.com.

● Communicating Green Effectively

Gary Niekerk, Senior Manager from Intel Corporation presented on: the challenges of trying to communicate a company's green initiatives.

Presentation Excerpt:

When you make statements such as, "we are carbon neutral or carbon negative," half of the people don't believe you and the other half doesn't understand what you're taking about. Gary recommended that you keep your green communications factual and to the point, and he gave examples of what Intel is doing as a leader in Sustainability. He also mentioned that an excellent guide on Green Washing is available free on the web from Futerra Sustainability Communications.

Gary can be reached by email at gary.niekerk@intel.com.

● Pillars of Sustainability: The Basics

Graham Twaddell, Environmental and Sustainability Manager at EnviroSure Solutions, LLC, provided an overview of sustainability and how the theoretical concept can be adapted to a practical application in

organizations. He demonstrated how this can be accomplished by defining sustainable development, including the three pillars on which it is constructed, identified the benefits of sustainability and ended with a discussion of how sustainability can be achieved. Participants were encouraged to interact throughout the presentation to enhance their understanding of how these concepts can be applied in their every day lives, both personal and business.

Graham can be reached at 480-784-4621, or by email at gtwaddell@envirosure.com.

Sponsors:

This year's seminar was hosted by SAEMS and ADEQ. Sponsors include: Brown and Caldwell; ALCOA, Central Arizona Project; TransChem Environmental; Tucson Electric Power; Apache Nitrogen Products, Inc.; Arizona Environmental Strategic Alliance; the Solar Store, EnviroSure Solutions, LLC; Bombardier; Carter Affiliates, Inc.; Tucson Fire Dept.; and Southwest Hazard Control, Inc.

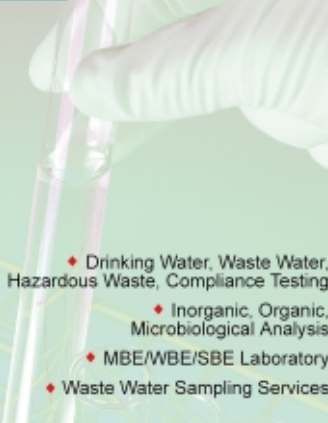
More Info. on the seminar is available at www.saems.org.



Moises Galardo, Kester de Nogales, speaking on Sustainability at the Local Community



**2445 N. Coyote Dr., #104
Tucson, Arizona 85745
520 882-5880
Fax 882-9788
www.turnerlabs.com**



- ♦ Drinking Water, Waste Water, Hazardous Waste, Compliance Testing
- ♦ Inorganic, Organic, Microbiological Analysis
- ♦ MBE/WBE/SBE Laboratory
- ♦ Waste Water Sampling Services

TURNER LABORATORIES, INC.
A Full Service Environmental Laboratory
Celebrating Over 24 Years in Tucson



WWW.KARYENVIRONMENTAL.COM

ROC151767 L-05 ROC218820 C-05

24 Hour Emergency Spill Response

Phone: (480) 945-0009

Fax: (480) 945-8599

- Emergency Response ● Soil Remediation ● Lab Packing
- Training, Including: HAZWOPER; RCRA; and Confined Space
- Asbestos, Lead, and Mold Abatement ● Confined Space Rescue Certified
- Temporary Technical Personnel ● Clandestine Drug Lab Remediation





Cows or Crows?

Employee Awareness

Employee safety awareness: What we can learn from cows and crows.

You're driving down a country road, and up ahead you see a crow on one side of the road, and a cow on the other. You honk your horn to let them know you're coming and what happens? The cow just stands there processing the grass - in one end and out the other, like it does every day, blissfully unaware of the danger. On the other side, the crow is paying attention and probably took off even before you honked your horn.

by Chuck Paulausky

How aware are your employees? Are they able to do the same task each day and still be aware enough to "fly away" when they are at

risk? A good safety program keeps your employees aware of the risks from their everyday jobs, through supervisor responsibility, rules & training, communication, employee involvement, and attention to "near misses".

Supervisors

Your supervisors are the front line in the battle against injuries. They know the employees and the processes. They are out there every day, in control of the operations. Make sure your supervisors know the risks that their employees face, and what's required to reduce those risks. When it comes to maintaining compliance, OSHA often looks at both management and supervisors when deciding who is liable for a fatality or serious injury.

There are a number of things that you can do to help your Supervisors protect the employees and the company.

- Provide supervisor awareness training to make sure they know their responsibilities.
- Make supervisors accountable for safety. Build safety into their annual performance reviews.
- Have them do regular, documented safety inspections.
- Use them to provide some of the safety training, i.e. "tailgate" or "benchtop" meetings.
- Make them responsible for doing detailed accident investigations that include causes and corrective actions, with follow-up.
- Ensure that the supervisors send the message that there's always time to "do it safely."

Rules & Training

Your employee manual probably includes a list of rules meant to protect the company from liabilities of sexual harassment, theft, internet usage, etc. You probably also have methods of enforcing these rules, such as "third strike" policies.

You should do the same with safety rules. There can be general safety rules outlined in the handbook, and job-specific safety rules defined in your safety manual, policies, and standard operating procedures. Regular, repeated training will help keep employees aware of the rules. Enforcement of the rules will help bring the message home.

Many construction companies rely on weekly tailgate meetings at the jobsites to keep employees aware. You can have quick meetings in your workplace that focus on specific topics of concern, (A good opportunity for the supervisors). Use occurrence of injuries and near misses to help drive your training topics. Repeated training can help keep safety "up front" in employees' minds.



Worldwide Engineering, Environmental, Construction, and IT Services

- Agricultural Services
- Brownfield Redevelopment
- Construction / Design-Build
- Environmental
- Water / Wastewater



**CONESTOGA-ROVERS
& ASSOCIATES**

4050 East Cotton Center Blvd., Suite 49
Phoenix, Arizona 85040
Phone: (602) 749-9400 Fax: (602) 749-9500

1955 W. Grant Rd., Suite 210
Tucson, Arizona 85745
Phone: (520) 623-9221 Fax: (520) 623-3065

www.CRAworld.com



Communication

There are lots of ways to communicate safety to the employees. Think about these methods:

- Safety newsletters and handouts
- Paycheck inserts
- Safety posters
- Safety incentives
- Counting “no lost workdays”
- Include safety issues in plant meetings to keep awareness up.
- Post Safety Committee meeting minutes

Employee Involvement

Workers will be more responsive to safety requirements if they are involved in the process. Some ideas for instilling a sense of “ownership” include:

- When doing Job Safety Analysis, make sure you talk with the employees involved in the operations. After all, they are the ones who are doing the work and will have an “insiders” viewpoint.
- Provide a safety suggestion box, and make sure to follow up with the employees making the suggestions. Even if you don’t act on the suggestions, let them know why. That way, they know that they’re not being ignored.
- Have a Safety Committee that includes workers from various departments. Don’t just rely on supervisors and managers to make up the Committee.
- Make sure that employee know that they won’t get into trouble if they communicate safety issues. You would be amazed at the number of employees, especially certain cultures that think they’ll be fired for “complaining” about safety.

Near Misses

Near misses are accidents just waiting to happen. Near misses are those accidents that almost happen. Near misses are what make

injuries predictable. If you ignore them, you’re increasing the likelihood that someone will be hurt.

OSHA statistics indicate that for every fatality or serious injury that occurs, there are 29 moderate injuries and 300 near misses! Think of the amount of pain, damage, and expense that could be saved if you recognized and responded to the first near miss, before it became an injury or fatality.

Most accidents result from one of two things:

- Unsafe Conditions- These are things that can usually be fixed or controlled
- Unsafe Acts- These are behavioral; Employees putting themselves and others at risk by not following the rules

Ensuring that all the employees are looking out for unsafe conditions, unsafe acts and near misses, and are empowered to do something about them will go a long way towards reducing injuries and improving employee awareness.

They say that when a person is wide awake, alert, and mentally active, they are still only aware of what 25% of their body is doing. When your employees are



working with machinery or chemicals, they need to be operating at 100%, including that 75% that their brains aren’t paying attention to. Safety awareness is critical to avoiding injuries. So what’s it going to be for your employees? Crows, or Cows?

Chuck Paulausky, CHMM, is President of CPSE LLC, a consulting firm specializing in OSHA and EPA compliance and loss control for small to medium-sized businesses. Chuck is active with the ACHMM Thunderbird Chapter, and is an ACHMM Champion of Excellence Award winner. Chuck can be reached at: 480-694-1975, cpaulausky@cpsafety.net, www.cpsafety.net.



Michael C. Ford, Attorney

Regulatory Developments

EPA Extends Audit Policy to New Owners

*The author would like to thank his colleague
at Bryan Cave, Maribeth Klein, for her insight and
analysis in drafting this article.*

EPA recently extended the scope of its Audit Policy (Incentives for Self-Policing Discovery, Disclosure, Correction and Prevention of Violations) on an interim basis ("Interim Approach") effective August 1, 2008.¹ The Interim Approach offers incentives to new owners to disclose violations pursuant to EPA's Audit Policy, which has been in effect and available to facility owners/operators in its current form since May 11, 2000.² Facility sellers and buyers should beware, however, that the Interim Approach may lead to increased scrutiny for newly acquired facilities that opt not to self-disclose pursuant to the Interim Approach, and increased non-compliance liability exposure for sellers.

The Interim Approach provides penalty mitigation and an expanded range of violations eligible for Audit Policy consideration for new owners who, within nine months of the closing transaction, promptly disclose violations to EPA or enter into an audit agreement with the EPA, and meet all other conditions of the Audit Policy.

To qualify as a "new owner" under the Audit Policy, a new owner must certify that 1) prior to the transaction, the new owner was not responsible for environmental compliance at the facility which is the subject of the disclosure, did not cause the violations being disclosed and could not have prevented their occurrence; 2) the violation which is the subject of the disclosure originated with the prior owner; and 3) prior to the transaction, neither the buyer nor the seller had the largest ownership share of the other entity (determined by shares of stock or shares of stocks with voting rights) nor a common corporate parent.³ The Interim Approach applies only to new owners who did not control operations at the facility before the transaction and only to violations that the new owner did not initiate.

Under the Interim Approach, EPA will not assess

economic benefit or gravity-based penalties against new owners for the period before the date of the acquisition. EPA also will not assess economic benefit penalties associated with delayed capital expenditures or with unfair competitive advantage if the violations are corrected in accordance with the Audit Policy (within 60 days of discovery or another reasonable timeframe to which EPA has agreed). EPA also will not recommend criminal prosecution of the disclosing entity.⁴

The Interim Approach increases the flexibility of the Audit Policy in several other key respects, including:

- Under the Audit Policy, a disclosed violation must have been identified voluntarily and not through a legally mandated monitoring, sampling, or audit procedure to be eligible for penalty reductions. The Interim Approach expands the definition of voluntary discovery to include all disclosures discovered before the first required instances of monitoring, sampling, or auditing for the new owner, thus allowing new owners a one-time "catch up" period to disclose violations found through activities that are already required.⁵
- Under the Audit Policy, disclosures must be made in writing within 21 days of discovery. Under the Interim Approach, new owners will have 45 days after closing to disclose violations discovered pre-closing. For violations discovered after closing, new owners must disclose violations within 21 days after discovery or 45 days after closing, whichever is longer.⁶
- Under the Audit Policy, violations resulting in serious actual harm or imminent and substantial endangerment to human health or the environment are not eligible for Audit Policy consideration. Under the Interim Approach, EPA will not exclude such violations as long as the violation that gave rise to serious actual harm or imminent and substantial endangerment began before the new owner acquired the facility and did not result in a fatality, community evacuation or other seriously injurious or catastrophic event.⁷

The Interim Approach, however, also raises significant liability concerns for the parties to the transaction, particularly the non-disclosers. EPA plans to track the number of recently acquired facilities whose new owners choose not to make "new owner" disclosures under the Interim Approach and cross-reference the newly acquired facilities with existing enforcement data.⁸ EPA asserts that by tracking self-disclosing and non-self disclosing newly acquired facilities, EPA can assess whether the Interim Approach motivates owners to come forward to the EPA.⁹ EPA suggests that it will monitor ongoing mergers and acquisitions pertaining to facilities that are subject to significant environmental regulatory obligations or facilities in certain sectors. By doing so, EPA hopes the tracking will yield the added benefit of identifying enforcement issues EPA may be "missing" in the effort to promote disclosures and compliance.¹⁰

EPA may also identify newly acquired non-disclosing

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.

facilities as "facilities of interest" where the available enforcement data indicates that there may be compliance concerns or gaps in EPA's understanding of the facilities' compliance status. "While such facilities may potentially be ripe or appropriate for inspection or enforcement attention, EPA has not established any new enforcement priority focused on [merger and acquisition] transactions or recently acquired facilities."¹¹ The tracking, however, could impact EPA's enforcement planning, and EPA expects that its tracking plan will further encourage new owners to self-audit and disclose.¹²

EPA also clearly reserved its right to pursue sellers. "A seller that did not discover, disclose and correct violations when it operated a facility should not be a beneficiary under the Audit Policy, simply because the facility's new owner decides to undertake such actions."¹³ Proponents of relief or incentives for sellers argue that the Interim Approach will chill mergers and acquisitions by substantially increasing transaction costs for the seller. Sellers might also prohibit buyers from disclosing violations by requiring non-disclosure clauses, or requiring indemnification for penalties assessed against the seller as a result of the buyer's voluntary disclosure. EPA rejected such claims, however, citing numerous comments indicating that environmental compliance liabilities (as opposed to environmental cleanup liabilities) are generally not the driving force in mergers and acquisitions. In addition, EPA questioned whether "no tell" clauses in transaction or indemnity agreements would be voidable as contrary to public interest.¹⁴

The Interim Approach has serious implications for parties to transactions involving facilities with potential environmental compliance liabilities. While encouraging and rewarding buyers for disclosing and correcting environmental violations, the Interim Approach may lead to increased exposure for non-disclosing new owners and sellers. Parties to a potential transaction should carefully weigh the implications of the Interim Approach in their negotiations and disclosure decisions. Although the Interim Approach is currently in effect, EPA is accepting additional comments on its Interim Approach through October 30, 2008.

Footnotes:

- 1 Interim Approach to Applying the Audit Policy to New Owners, 73 Fed. Reg. 44991 (April 1, 2008).
- 2 EPA issued its first policy on "Incentives for Self-Policing Discovery, Disclosure, Correction and Prevention of Violations" which took effect on January 22, 1996 on December 22, 1995. See 60 Fed. Reg. 66706 (December 22, 1995). On April 11, 2000, EPA issued its revised final policy which took effect May 11, 2000. See 65 Fed. Reg. 19618 (April 11, 2000). The Audit Policy encourages voluntary discovery and disclosure and prompt correction of environmental violations by eliminating or substantially reducing the gravity based component of civil penalties and a determining not to recommend criminal prosecution of the disclosing entity. *Id.*
- 3 73 Fed. Reg. at 44995-6.
- 4 65 Fed. Reg. at 19618.
- 5 *Id.* at 45000.
- 6 *Id.* at 45001.
- 7 *Id.* at 45003.
- 8 73 Fed. Reg. at 45005.
- 9 *Id.*
- 10 *Id.*
- 11 *Id.*
- 12 *Id.* at 45005-6.
- 13 *Id.* at 45005.

N. Weiss Associates, Inc.

Environmental Compliance Services

Experience Counts

Contact: Norm Weiss @ (602) 870-5504

Web Site: www.nweissassoc.com



Phone 480-784-4621

smart, sustainable solutions

- HazMat Inventories
- HazWaste Management & Disposal
- OSHA Safety Programs & Training
- DEQ Storm Water Plans & Training
- EPA SPCC Plans & Training
- Sustainable Development "Go Green"
- Site Assessment & Remediation
- Clean Construction

1979 E. Broadway Road, Suite 2
Fax 480-784-2207

Tempe, Arizona 85282
www.envirosure.com

Jason Bolen

Cell 602.739.0083
jbolen@aerofire.com

623.580.7800

Fax 623.434.0029



21605 N. Central Ave.

Phoenix, AZ 85024



Hazard Prevention Institute (HPI)

Safety, Environmental & Emergency Management Solutions

Training & Consulting Services

Miguel A. Rodriguez
President

Office: (520) 887-0355
Cell: (520) 440-1352
Fax: (520) 887-0180; Toll Free: (800) 915-2492
E-mail: miguel@hazardprevention.com
Website: www.hazardprevention.com



Geotechnical ■ Environmental ■ Construction Materials Testing ■ Facilities

Phoenix
480.897.8200

Tucson
520.770.1789

More than 95 offices nationwide

Associations Pages

The Journal of Environmental Management Arizona invites environmental, health and/or safety organizations in Arizona to contribute news articles about their associations. Contact the editor at 480-422-4430 x42.



EPAZ

www.EPAZ.org

In August, a few fortunate EPAZ members had the opportunity to have lunch and tour the Boeing helicopter manufacturing facility in Mesa. In addition to the tour guided by Mike Jerman, an overview of Boeing's Environmental Management Program was presented by Bill Pool. Many innovative ideas for waste minimization and reduction of environmental impacts have been incorporated into the plant operations.

Dr. Paul Westerhoff, Dean of the Arizona State University's College of Civil and Environmental Engineering Dept. gave a very informative and well-attended presentation on pharmaceutical chemicals in water supplies at the Sept. EPAZ meeting. Accurately measuring the very low concentrations of these chemicals (in the parts per trillion range) is a challenge for analytical laboratories. However, the drinking water supplies in Arizona appear to be well below levels which would produce noticeable effects in humans.

The scheduled topics for the Oct. and Nov. EPAZ meetings are: Grady Gammage Jr. on the Morrison Institute's Arizona Megapolitan report and Erik Fisher on environmental impacts from emerging nanotechnology, respectively.

To kick off our new membership year which begins in Nov., we are planning a special mixer on Oct. 29. EPAZ holds monthly luncheon meetings on the 2nd Thurs. of the month from 11:30 am to 1:00 pm. EPAZ also gathers on the last Wednesday of the month (usually) for a casual cocktail mixer. Visit our web site for more details or contact me at (602) 393-4800

*Mannie Carpenter,
President*



**SESHA AZ Chapter
Semiconductor
Environmental Safety
& Health Association**
www.seshaonline.org

The local Arizona Chapter of SESH A held a Chapter Meeting on September 25th at the ASU MacroTechnology Works in Tempe. A panel of professional EHS experts fielded questions from the meeting's participants regarding the topic, "How to Start an EHS Consulting Business".

The panel included: Chuck Paulausky from CP Safety and Environmental, and Mike Sherer from Sherer Consulting Services. After that, a different panel of professional EHS Site Managers fielded questions from the meeting's participants regarding, "What to Consider when Choosing a Consultant". We had lively discussions.

The SESH A Chapter's next organized event is a Holiday Social. Please join us for some friendly networking on December 4th at 4:30 pm at The Keg located in Chandler at 3065 West Chandler Blvd near the 101 Freeway. Hope to see you there!

*Christine Pomerence,
President*



www.SAEMS.org

SAEMS held its Annual Bi-National Pollution Prevention Seminar in September. This year's focus was on the Pillars of Sustainability - environmental stewardship, social equity and positive economic growth. SAEMS would like to extend thanks to all the speakers, sponsors, organizers and participants!

In September, SAEMS members also participated in an Adopt-a-Highway Cleanup and the Tumacacori Bottle Jam where thousands of plastic bottles, styrofoam, and other litter that have washed up in the flowing section of the SantaCruz River were removed.

SAEMS will participate in the Make a Difference Day on October 25 at Reid Park. Volunteers will be assisting in the collection of thousands of pounds of electronic equipment for safe disposal and restoring habitats with planting of trees. On October 29th Marc Romito from Tucson Electric Power will be speaking at our Monthly Luncheon on Renewable Energies. For more details check out the SAEMS website.

*Shari Bauman
President*



www.awma-gcs.com

The Grand Canyon Section of A&WMA kicked off its fall schedule with a presentation by Timothy McDonald, Consulting Engineer for Arizona Public Service. Tim gave us a great presentation concerning a pilot-scale pyrolysis system that converts farm and forest biomass waste material into pyrolytic char and oils. The char is being evaluated as a form of carbon sequestration while the oils are being evaluated for conversion into bio-fuel.

Our October meeting will continue the theme of green projects with a Friday afternoon site visit to Salt River Project's Arizona Falls hydroelectric facility. Watch our website for more information on how to sign up for the tour and spend a Friday afternoon out of the office.

*Kale Walch,
President*



**ASSE
American Society of
Safety Engineers**

At the SA ASSE September 9 meeting, we had two outstanding speakers. Our first speaker, Jim Gallup, PE, CSP, works with Rolf Jensen Associates. He is also the ASSE's Region II Vice President. Jim spoke about integrating life safety and security systems with regard to designing effective stairwell re-

entry systems in high rise buildings. Jim also spoke about ASSE from a regional perspective. Our other speaker was Harold Gribow, who is the Region II Area A Director. Harold shared his thoughts on the benefits of being an ASSE member.

Shari Di Peso,
Secretary



ACHMM Thunderbird

www.thunderbirdchmm.org

The Thunderbird Chapter will once again be awarding ACHMM Thunderbird Chapter Scholarships for the 2009 Spring semester. Information and applications should be available from our website and from the scholarship offices at ASU, UofA, and NAU. If you are in school, or know someone who is working on a degree in the environmental sciences at an Arizona school, be sure to pass on the word.

Nominations and elections for the 2009 Thunderbird Chapter Board are coming up soon. Notices will go out via email to Chapter members. If you are interested in getting involved, please contact Chuck Paulausky at cpaulausky@cpsafety.net. Don't forget the Thunderbird Happy Hour on 1st Thursdays, 5:30 PM - ?? The ACHMM/EPAZ monthly lunch meetings are held from 11:30~1:00 on the 2nd Thurs. of each month. Note that the meeting location may change in the near future, so check your emails for the meeting notice. Meeting details: www.thunderbirdchmm.org or www.epaz.org.

Calendar Items: Oct 2 – T-Bird Happy Hour, Sonora Brewhouse, Phoenix; Oct 9 – Luncheon Meeting, OSHA VVP; Nov 6 – T-Bird Happy Hour, Gordon Biersch, Tempe; Nov 13 – Luncheon Meeting, Nanotechnology; Dec. – T-Bird Holiday Party, TBD; Dec 11 – Luncheon Meeting, ISO Certification; January – No T-Bird Happy Hour; Jan 8 – Luncheon Meeting, Energy; Feb 5 – T-Bird Happy Hour, TBD; Feb 17-18, 2009–Gatekeeper Regulatory Roundup at the Chaparral Suites

Chuck Paulausky,
Board Member



www.eia-az.org

The EIA-AZ Chapter is joining forces with Arizona State University to offer asbestos awareness seminars at five of their locations within Maricopa County. The classes are offered to the public at no cost. Each seminar will be scheduled from 8 AM to noon. Planning for our fall full day environmental seminar is also in full swing. The seminar is hosted by ADOT and scheduled October 12, 2008 at Arizona Department of Transportation, 1130 North 22nd Avenue, Phoenix. Please visit our web site at <http://www.eia-az.org> or call 602-437-3737 ext. 123 for information on all upcoming events sponsored by EIA-AZ.

Laura Adams,
President



www.azhydrosoc.org

The Arizona Hydrological Society's (AHS) 2008 symposium was held on Sept 20-24, 2008. The symposium was jointly planned and hosted in collaboration with the American Institute of Professional Geologists. The combined conference included excellent invited speakers, technical presentations, and a selection of interesting field trips in Northern AZ.

The Flagstaff and Phoenix Chapters of AHS held a Zuni Basin Fossil Field Trip on Oct 10-12. The trip was hosted by Doug Wolfe, Renaissance Environmental Management, L.L.C. and included the viewing of a fascinating selection of fossils. Ralph Marra and Wally Wilson provided an overview of the 2008 update of the Tucson Water Plan 2000-2050 at the Tucson Chapter meeting on Oct 14.

Please check the AHS website for announcements of Fall meetings and other AHS activities.

Nick Melcher,
Executive Director



Arizona Environmental Strategic Alliance

www.azalliance.org

If this applies to your business or organization, then you may be interested in the experiences of Ping, Intel, the City of Scottsdale, and others who either currently or have recently handled the same challenges establishing an EMS. A panel of speakers will discuss implementation roadblocks to lead off the discussion. If you would like more information or are interested in participating in the upcoming seminar (planned for early next year, but date not yet selected) and you are currently in the process of implementing an EMS, let me know, or contact Jim Thrush at jimthrush@cox.net. Participation is free, however seating is limited.

Scott Davis,
Chairperson



www.azchamber.com

The Arizona Chamber of Commerce and Industry has recently formed an Energy Committee that will focus on monitoring energy issues and their impact on business and industry in Arizona. One of the key issues this committee will focus on is the issue of climate change. The Energy Committee monitors and comments on the actions and proposals of the Western Climate Initiative along with Arizona and national regulatory activities associated with this issue. Contact the Arizona Chamber for information on meetings and activities associated with this important committee.

The Environment Committee continues to hold monthly breakfast meetings where speakers address environmental issues affecting business and industry in Arizona. Breakfast meetings are held on the second Wednesday of each month at the Sheraton Phoenix Airport Hotel located at 1600 South 52nd Street in Tempe. Any questions should be directed to Jeff Homer at 480-441-6672.

Jeff Homer,
Co Chairman
Environment
Committee



Crossword Challenge:

Theme: Environmental Key Words

Here is our 4th EH&S Puzzle, and our 3rd Environmental Key Word Puzzle.

Across

1. Quantity of matter
3. Spherical bacteria
6. Microorganisms that require the presence of oxygen
7. Microscopic organism
9. An electrically charged atom or group of atoms.
11. A deduction of weight, made in allowance for the weight of a container or medium
13. Good soil
16. Federal agency responsible for developing recommended health and safety standards.
18. Untreated, as in untreated sewage.
19. Arizona's Superfund
20. A site used to dispose of solid waste without environmental controls.
23. Provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States without a permit.
24. Particles suspended in air
26. Bruisitis of the knee joints, common in mining
27. The number one hazardous waste violation, according to ADEQ, is incorrect or missing _____ requirements
28. Watt-second
31. To cut or eat away material with acid or another corrosive substance
33. Ether compound used to raise oxygen content of gasoline.
35. This form of a common gas is hazardous at ground level, but it is useful in the stratosphere.
36. Quantity of heat.
37. Unarousable unconsciousness
39. Standards established by EPA that apply for outdoor air throughout the country.
41. Metal mixture
42. Advisory group of scientists and professionals that make recommendations for radiation protection
44. Used as fuel.
46. This structure impedes flow of water.
48. Movement of water through small spaces
52. Form of H₂O found on plantlife at lower temperatures.
57. ACGIH's advisory biological limit value
58. Auto. emissions test, takes up to 240 secs
60. Describes alkaline water containing dissolved salts.
61. Home to bees.
63. Maximum allowable exposure set by OSHA.
65. A drum is ____ when contents removed using common practices, and certain requirements met.
66. A low wall than acts as a barrier to prevent a spill from spreading.
67. She's a product nucleus or atom caused by radioactive decay

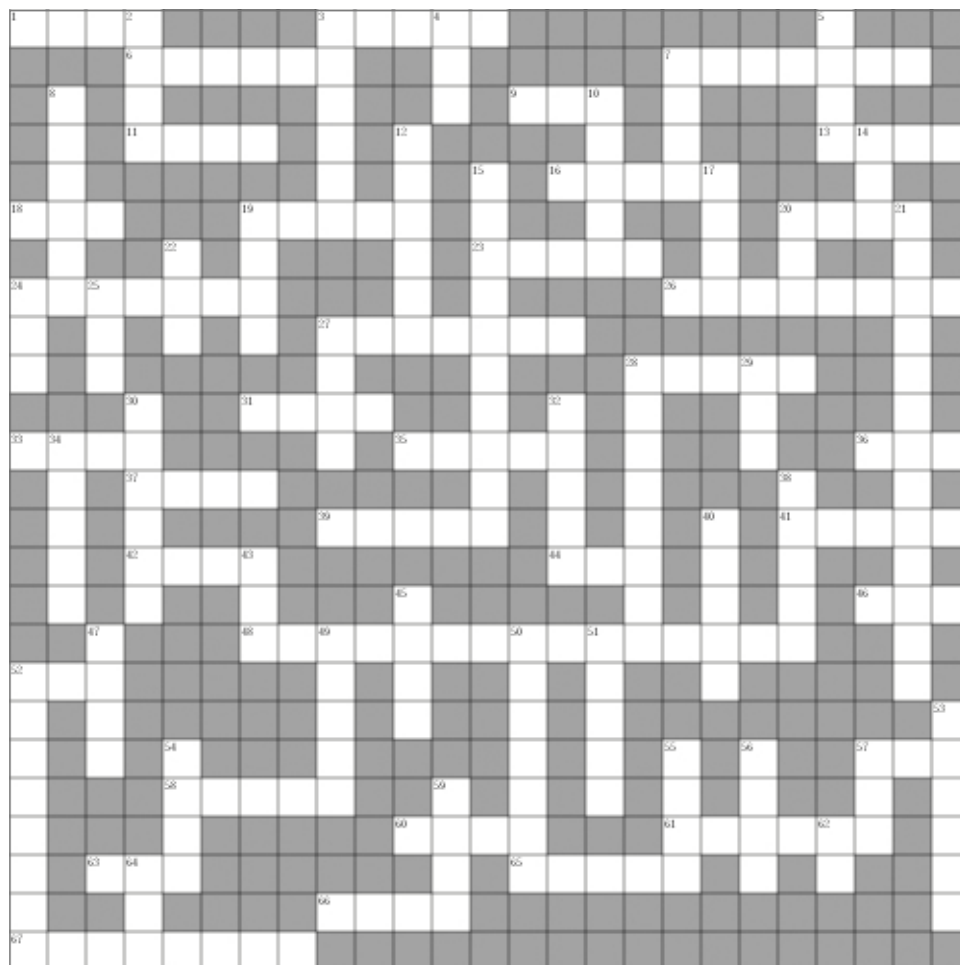
Down

2. Dry Arizona river
3. It's nickname is Superfund
4. A layer of clay or other impermeable material installed over the top of a closed landfill to prevent entry of rainwater and minimize leachate.
5. The concentration of a substance at which

- exposure produces no evidence of injury or impairment
7. Compilation of information required under OSHA com standard
8. Quantity of chemical administered.
10. Unwanted sound
12. Substance that resists change in pH
14. Unit of electrical resistance
15. If a generator has two properties that are _____ he can move hazardous waste from one to the other.
17. Refers to a thin area of ozone.
19. Vertical structural element.
20. Pesticide banned in the US in 1972 because of its persistence in the environment and accumulation in the food chain, has a half-life of 15 years.
21. This principle states that when information about potential risk is incomplete, decisions should be made with a preference for avoiding unnecessary health risks rather than avoiding economic expenditures.
22. The mineral content of a product remaining after complete combustion.
24. O₂ 21%, N₂ 78%.

25. Reference Dose
27. Soil made from decaying plants.
28. Refers to period 208 to 144 million years ago.
29. Unit of light measurement.
30. Draw off the upper layer of liquid after the heaviest material has settled.
32. This type of generator faces the least regulations.
34. 100,000 Btu
38. Submarine depression.
40. The definition of this type of hazardous waste is often confusing because it also can include liquids or gases.
43. A tough, environmentally indestructible plastic that releases hydrochloric acid when burned.
45. Fuel element for a nuclear reactor
47. 1965 environmental waste act
49. Measurement of particle in atmosphere
50. Proliferation of a marine plankton toxic & fatal to fish
51. Rootless plants growing in sunlit waters.
52. No longer considered threatened.
53. Waste material discarded on ground
54. Beak.
55. Describes waste domestic wash water from kitchen, bathroom, and laundry sinks, tubs, and washers.
56. Form of H₂O, can affect vacation plans.
57. Area of water extending into land from lake or sea.
59. Stronger than a breeze, less than a storm.
62. The amount of hazardous waste released from a facility into the environment that must be reported immediately.
64. One dyne acting through one centimeter

Answers: Find the KEY to this puzzle at www.ehshomepage.com. The Link is at bottom of the homepage.





Larry Olson, PhD.

It's All About Chemistry

Biodiesel from Waste Oil

In 2006, 49.6 billion gallons of diesel fuel were consumed in the U.S. (http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/fuel_oil_and_kerosene_sales/current/pdf/highlights.pdf). 79% of this was used for highway transportation, mostly for big trucks. The rest was for farms, construction, military, rail and marine craft.

Biodiesel, a potential replacement for petroleum diesel, is a fuel derived from plant or animal lipids. Oils or fats can't be used directly in diesel engines because their higher viscosity, higher cloud points and lower vapor pressures put extra pressure on filters and pumps and can cause deposits in cylinders and injectors. But by a process called transesterification, which involves reacting triglycerides with an alcohol such as methanol, a liquid fuel with properties much closer to petroleum diesel can be derived. This fuel, called biodiesel, can be used in existing engines as a blend (e.g. 20% biodiesel called B20) or as a pure fuel (called B100).

Biodiesel production has grown from about 75 million gallons in 2005 to 450 million gallons in 2007 (<http://www.eia.doe.gov/bookshelf/brochures/diesel/>). Thus, currently biodiesel is only about 0.9% of total diesel usage. Almost all biodiesel in the U.S. is produced with soybeans. In Europe, the source is

mainly from rape seed (canola) oil. If we assume a yield of 118 gallons/ha for soybeans, then 420 million ha of land would be required to replace all the diesel fuel used in the United States. Given that there are about 182 million ha of cropland currently, it's obvious that using virgin oils from crops is not a feasible solution to making significant amounts of biodiesel. That doesn't even include the cost issue. There is virtually no profit margin for producers of biodiesel if they have to buy soybean oil. And with corn based ethanol, we have already seen the fear of increased commodity prices when food and fuel compete.

So is there a role for biodiesel? Two promising options are to use oil derived from algae and to recycle waste oils into biodiesel. We'll focus on algae in the next issue, but let's take a closer look at the potential for waste oil here.

About 2.5 billion pounds of waste fats are collected annually from U.S. restaurants and fast food establishments (M. Canakci, Bioresource Technology (2007), **98**, 183-90). In addition, 11.6 billion pounds of animal fats are produced each year. The price of these materials is far below the price of food grade oils. Since as much as 75% of the cost of biodiesel can be due to the feedstock, there is great potential for converting these oils and fats into a fuel. But even if all of the restaurant wastes and animal fats were converted into biodiesel, it would still only represent 4% of petroleum diesel usage. That's not going to solve the problem, but it's a start.

There are, however, significant technical problems to overcome in using waste oils. Steam produced from deep frying foods causes hydrolysis of triglycerides to produce free fatty acids (FFA), as well as mono and diglycerides. In addition, there are a multitude of reactions with olefin bonds in the oil, including oxidation and polymerization. So the chemical nature of the oil changes during frying. A simple transesterification reaction doesn't work with these types of oils. Base catalysis in the presence of FFAs produces soap instead of biodiesel. Other materials such as non-saponifiable solids, proteins, or other carbohydrates may also be present. There are strategies to overcome these hurdles, but that is why large scale production of biodiesel from waste oil is still in its infant stage.

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



Sustainability and Sustainable Development

Nicholas R. Hild, PhD.

**‘ . . . it takes a village . . .
“eco-village,” that is . . . ’**

Part I of II

If you were in college in the late ‘60’s, you’re familiar with the concept of ‘communal’ living. Recently, we’ve seen a resurrection of the idea of what might be called, the ‘modified communal’ village—only now it is fashionable to call them “*eco-villages*” which imbues them with traits that certainly conjure up a different image than the ‘60’s hippie digs in a time where Haight-Ashbury, Woodstock and Wadena (Iowa) became the holy grail of the flower children generation.

What brings the subject of ‘communal living’ to mind, is the relatively new green building concept known today as ‘eco-villages.’ How, you may rightfully ask, did I make the leap from hippie communes to eco-villages? Consider that all those years since Woodstock, communal living as practiced by the flower children of that day, rapidly declined to the point where it would be difficult to locate any remaining within the U.S. That is not to say, however, that a few have not survived; they have, but they’ve had to become something different than how they were founded—“*different*” to sustain themselves, at the very least.

In 1970, at the beginning of the end of the hippie lifestyle for all but a few hardcore communes, a visionary named Palo Soleri proposed to build a laboratory for an ecologically sensitive, compact, high-density community where people could live and work *car-free*, off-the-grid, growing their own food while focusing on construction alternatives to urban sprawl and hyper-consumption. He named this vision Arcosanti and set out to recruit ‘students’ to embrace his “arcology” theories, combining ecology and architecture to move to the then-remote Arizona desert and build a 25 acre site into a residence for 5000 like-minded ‘*arcologists*.’ Wow! 5000 people living on 25 acres—

think ‘*density*’ at the extreme level.

Arcosanti, for all practical purposes, became the first of what we now call, “*eco-villages*” which are now a part of the current day’s *green-speak* that underlies the various ‘sustainable development’ protocols that we’ve all come to know and love.

What wasn’t envisioned in 1970, however, was that it would take so long to ‘build-out’ Arcosanti—indeed, now almost 40 years later, it is less than 3 percent complete because...and this is the catch...because of not being able to attract sufficient capital to finance the prototype eco-village community.

And, therein lies *the* lesson for future sustainable ‘village’ builders—being a capitalist and embracing capitalism was just too establishment for the truly ecology-minded prophets of environmentalism back then—it was just not cool...but, it turns out to be absolutely necessary for survival in this new (and greening) millennium.

Usher in the *new* millennium communal life-style: an eco-village right in your own back yard! (i.e. no NIMBY syndrome for these folks!)

You might be surprised, as I was, to learn that in keeping with the notion that capitalism does have its strong point to emulate, there is now an Eco-Village Training Center in Tennessee where people go who are interested in learning how to build, live, and work in more sustainable ‘neighborhoods’— (Note: these are not at all the same model as Arcosanti)— which are *designed* as eco-villages. And, while there aren’t a lot of left over hippie communes, there seems to be no lack of eco-villages that are better characterized as *little villages within larger neighborhoods*, where people have signed a contract to live just a little more sustainably than the rest of the neighborhood at large. That’s quite different than the Arcosanti model but it’s still all about living sustainable lifestyles.

Worldwatch Institute released a study recently that catalogued 379 “eco-villages” which are registered with the Global Eco-Village Network—110 of those are in North America—but while the sheer numbers of ‘villages’ are impressive, the report also doesn’t give any advice for how such ‘villages’ can sustain themselves. “*That*,” says Al Bates, the director of the Eco-Village Training Center in Tennessee, “*is one of the biggest challenges—the lack of community ‘glue’ is hard to over-emphasize.*” Even Bates acknowledges that most ‘eco-villages’ fail in the first five years because... “*(the people living there) ...don’t have the people skills to live together in harmony.*”

Seems there was a lot of that going around back in the hippie communes of the ‘60’s, too.

So, in the second part of this article coming in the next issue of the Journal, we will examine how eco-villages are designed to overcome those growing pains that ultimately spelled the demise of the communes of the ‘60’s—those were the people that, back then, were sure they had the answer for a brighter future for their children’s, children’s, children.

Nicholas R. Hild, PhD., Professor, Environmental Technology Management, Arizona State University College of Technology and Innovation, 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.

PROSPECTING:

For Environmental
Business

A Message From Your Prospect



I'm very busy, so I'll try to keep this short. I'm sending this note to provide some insight into why I continue put you off and do business with others. Your persistent calls make it clear that you want our business, and, though I'd love to reward your efforts and give it to you, I'm still waiting for a good reason.

It's not that I don't like you or your company, feel you do poor work, or are too expensive. It's simply that our company has been doing business with your competitor for some time and they are doing an adequate job. Our contract with them gives me an excuse to avoid changing vendors. I'll let you in on a little secret. If I really wanted to change vendors, I would only need to demonstrate good reason and my boss would have no problem with it.

To be honest, I'm getting a little annoyed by your calls to "just to check in". I need more. You would do much better if you called with some news: a recent legal decision that affects me, an incident in another state, or a technological innovation. I'm not asking for free services, but, if you want to impress me, show me that you are plugged in to the things that affect me.

I want to hear creative solutions to the things that give me pain. The last time you presented to us, it was all about your company and its great capabilities. It was very entertaining, but you never told me how you could make my life easier, improve my bottom line or keep me out of court. I don't want to hear all about me or all about you. I want to hear all about us: what can *you* do about the things that keep me up at night?

This may come across as demanding, but I am a very busy person and have no time to deal with anything that doesn't make my job easier. The fact is, your competitor isn't any better, but since they are already part of our routine and compelling alternatives have not been presented, we continue to give them our business. Just thought you'd like to know.



Joe Holmes is the Regional Manager of Business Development at ATC Associates. He can be reached at joe.holmes@atcassociates.com.

Joe C. Holmes

BELFOR (●)

ENVIRONMENTAL

**Providing the
Finest in
Environmental
Service**

- 24 hour emergency spill response
- Soil remediation
- Storage tank cleaning and removal
- Vapor extraction system installation
- Asbestos abatement
- Waste management
- Bulk chemical transfer
- Industrial decontamination
- Lab packing



Offices in Phoenix, Denver, Atlanta, Portland,
Colorado Springs 480-632-2119 800-930-0011

BELFOR (●)



**7 Terminals
throughout the
Western states**

Hazardous/Non-Hazardous Transportation

Environmental Remediation Services

Waste Management

Emergency Response Services - 24 Hrs



3045 South 51st Avenue, Phoenix, AZ 85043
602-278-6233 800-833-7602 Fax: 602-278-2884
www.mpenviro.com



Lawrence Odle, Air Quality Dept. Director
Photo Courtesy Maricopa County

County officials recently announced the appointment of Lawrence Odle as Maricopa County's new Air Quality Department Director. Odle comes to Maricopa County from Washington County,

Maricopa County Hires New Air Quality Director

Oregon with more than 35 years experience in air quality, pollution control, land use and transportation.

"He has an extensive professional background in air quality and is uniquely qualified to begin tackling the challenges here in Maricopa County," said Andrew Kunasek, Chairman of the Maricopa County Board of Supervisors. "The Board will rely heavily on his experience and ability to bring a number of key parties together to move us forward to cleaner air," noted Kunasek.

Maricopa County has been mandated by the federal government to reduce particulate matter (dust) pollution and recently joined cities in tightening regulations in an effort to meet new standards. Ozone pollution has also remained a challenge in the Valley. The Air Quality Department has recorded 26 days so far in 2008 where at least one of its monitors exceeded

the federal health standard for either ozone or particulate matter pollutants.

"It's safe to say I have my work cut out for me," said Odle. "But there is much each of us can do to improve air quality, and even more when we work together. I look forward to those opportunities."

In addition to his most recent position as Deputy Director of Washington County's Land Use and Transportation Department, Odle's extensive resume includes executive director positions for a number of Air Quality organizations including Yakima Regional Clean Air Authority, North Coast Unified Air Quality Management District, Butte County Air Quality and Monterey Bay Unified APCD.

He has also served as interim county Chief Administrative Officer in Butte County, California.

Odle is a two-term past president of the California Air Pollution Control Officer's Association, past member of the Board of Directors of the National Association of Local Air Pollution Control Officials and a former California Air Resources Board Advisory Committee member.

In addition to being a certified mediator, Odle holds a Juris Doctorate from Cal Northern School of Law and a Bachelor's of Science in Environmental Biology from the University of California, Riverside.

He will begin employment on October 22, 2008.

Phoenix Rillito El Paso Mexico

Chemical Transportation, Inc.

... more than the name implies

As the environmental industry has grown more complex and the regulatory climate more demanding, CT's scope of service has grown to include:

Transportation Services

Including Specialty Tankers, Roll Offs, & Vans

Waste Management Services

Ranging from Large Quantity to CESQG Generators

On Site Services

Industrial Pipeline Services

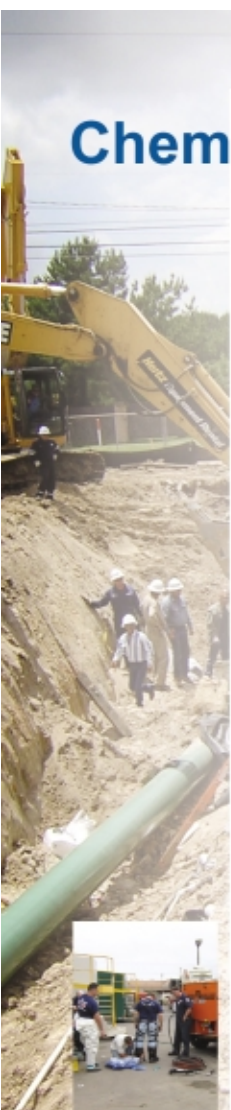
Air Movers & Hydroblasting

Safety & Compliance Services

CT: maintaining a solid reputation for quality service.

CT inc.

Phoenix, Arizona Toll Free: 888-444-7077
El Paso, Texas Toll Free: 888-999-2260
Rillito, Arizona Toll Free: 800-634-4828



Golfing for a Great Cause!



ERE presents \$3,800 check to Foundation for Burns and Trauma
From Left: Brandon Rohner, ERE; Mike Merucci, Foundation for Burns and Trauma; Jessica Watkins, Burn/Trauma victim; Adison Henney, Burn/Trauma victim; Bryan Bradley, ERE; Heath Bradley, ERE.

Emergency Restoration Experts hosted its 7th Annual Charity Golf Tournament September 13, 2008 at the Ocotillo Golf Course in Chandler, Arizona.

The event drew more than 140 golfers and sponsors who enjoyed a gorgeous day on the course while raising funds to support an

important cause—and one close to the hearts of the Emergency Restoration team—Foundation for Burns and Trauma.

Emergency Restoration Experts Founders and Principals, Heath Bradley and

Bryan Bradley, presented a check for \$3,800 to Executive Director of Foundation for Burns and Trauma, Mike Merucci. Funds will be used to help support programs in burn prevention, treatment, rehabilitation and research.

For more information, contact Emergency Restoration Experts at 877-746-3443. ERE maintains a website at www.ERExperts.net.



ERE Charity Golf Tournament: From Left: Kevin Brudos; Heath Bradley; Ted McIntyre; and Craig Cross.



www.cartercare.com/care



* Hazardous Waste Management
* Pollution Prevention Programs
* Environmental Consulting / Regulatory Support
* Waste Reduction / Recycling Equipment
* Compliance Audits / Training

(520) 323-1100
715 N. Belvedere Ave., Tucson, AZ 85711

Monitored Natural Attenuation of Petroleum and Chlorinated Hydrocarbons in Soil and Groundwater

This course provides participants with an overview of the science and best practices for implementing monitored natural attenuation. The course sections focus specifically on monitored natural attenuation of petroleum hydrocarbons, fuel oxygenates, and chlorinated hydrocarbons in soil and groundwater.



December 2-3, 2008 | Desert Botanic Garden | Phoenix, AZ
Instructor: Erick McWayne, NW Environmental Training Center
MORE INFO: <http://www.nwetc.org/>
http://www.nwetc.org/ghyd-410_12-08_phoenix.htm

CLEAR SKIES (and compliance) AHEAD

Air quality consulting
Regulatory compliance
Title V/minor source permitting
BACT/LAER assessments
Dispersion modeling/risk assessment
Risk management planning
Continuous emissions monitoring
Indoor air/industrial hygiene surveys
Odor control
Process engineering

Contact Ned Overs or Sean Coury at 480.905.9311

14201 N. 87th Street, Suite 135
Scottsdale, Arizona 85260
480.905.9311/Fax 480.905.9353
www.lfr.com



LFR is a national environmental management and consulting engineering firm.

News Briefs

\$6 Million Settlement with Honeywell Over Environmental Violations

❖ Arizona Department of Environmental Quality (ADEQ) Director Steve Owens and Arizona Attorney General Terry Goddard announced recently that Honeywell International, Inc. (Honeywell) will pay a \$5 million civil penalty for hazardous waste and environmental cleanup violations at its Phoenix airport facility, located at 111 S. 34th Street in Phoenix, and \$1 million for a supplemental environmental project.

The penalty settles a lawsuit filed by ADEQ and the Attorney General's Office against Honeywell in July 2004 for a number of environmental violations spanning more than 30 years. The lawsuit alleged that between 1974 and 2004 Honeywell violated numerous environmental laws, including the Arizona Water Quality Control Act, Arizona Hazardous

Waste Disposal Act and Arizona Underground Storage Tank Act.

Honeywell's alleged violations included discharging chlorinated solvents such as vinyl chloride, dichloroethane, trichloroethane and trichloroethylene, into the Phoenix sewer system without a permit. Additional violations included failing to clean up historic releases of fuel from underground storage tanks at the airport facility and failing to fully disclose information regarding contamination over a period of several years at the facility.

"I am very pleased that Honeywell worked closely with the state to reach this settlement," Governor Janet Napolitano said. "This clearly shows our commitment to protecting our environment and precious groundwater resources."

"These were extremely serious violations of the law, and the size of the penalty reflects the significance of the problems at this facility," Director Owens said.

Owens added that as a result of the enforcement action taken by ADEQ, Honeywell has improved its environmental compliance significantly in recent years. "The company has made a lot of progress at this facility in the last few years, due to both a change in attitude and a change in leadership," Owens said.

"Arizona's environmental laws provide crucial protections for the health and well-being of our families, communities and natural resources," Goddard said. "Following those laws is part of doing business in Arizona. Anything less will not be tolerated."

The settlement also resolves three notices of violation issued against Honeywell by ADEQ between 2005 and 2007. These notices cited 14 incidents of improper storage and disposal of hazardous waste as well as failure to inform employees of proper handling and emergency procedures. In one such violation, ADEQ inspectors discovered that

cyanide-containing wastewater was stored next to wastewater containing chromic acid. When combined, these two substances react to form cyanide gas.

In addition, Honeywell discovered that underground storage tanks at the facility were leaking petroleum into the groundwater table. Honeywell did not report the leaks to ADEQ for more than 10 years.

As part of the settlement process, Honeywell conducted a comprehensive environmental audit at all of its Arizona facilities and disclosed the findings and corrective actions to ADEQ. The company also upgraded its fuel distribution facilities to prevent leaks and is in the process of cleaning up the fuel in the groundwater. In addition to the \$5 million civil penalty, Honeywell will provide a \$1 million supplemental environmental project to the Western Governors Association for the Western Climate Initiative in support of efforts to reduce greenhouse gas emissions in the West.

Salt River Project to Pay \$950,000 Penalty

❖ EPA recently announced the Salt River Project Agricultural Improvement and Power District (SRP) has agreed to install state-of-the-art air pollution controls at an estimated cost of \$400 million, pay a \$950,000 civil penalty and spend \$4 million on environmental improvement projects in Arizona to settle alleged violations of the Clean Air Act at its Coronado coal-fired power plant near St. Johns, Arizona.

In a complaint filed in federal court in Arizona, the federal government alleged that SRP illegally modified two units at the plant, thereby increasing air pollution. SRP was cited for failing to obtain necessary pre-construction permits and install required pollution control equipment to reduce the byproducts of coal combustion, sulfur dioxide (SO₂), and nitrogen oxides (NO_x).

The settlement, filed concurrently with the

Arizona Contractor's Licenses B-General ROC 130187, ROC AE-101060,
ROC C05-101110, EPA Haz. Materials Trans. Lic. # AZ0000303032



Environmental Response, Inc.

24-Hour Emergency Response

Soil Remediation

Hazardous Waste Trans. & Disposal

Facility Decontamination

Lab Packing

Excavation and Demolition

Mold Remediation

Lead Abatement

Landfill Closure

Household Haz. Waste Collection Events

Vapor Extraction System Installation

Brownfields Remediation



Environmental Response, Inc.
A Wholly Owned Subsidiary
of Spray Systems Environmental

2202 W. Medtronic Way, Suite 108, Tempe, AZ 85281
Arizona 24 Hours (480) 967-2802
www.spraysystemseri.com

complaint, requires SRP to install two scrubbers to control SO₂, burners to limit NO_x, and a selective catalytic reduction (SCR) unit to further control NO_x emissions. This is the first settlement ever to require an SCR retrofit of an existing coal-fired electric generating unit in the Western United States. The controls will reduce combined emissions of SO₂ and NO_x by over 21,000 tons each year.

"Power plant modifications must include required emissions controls to protect public health and the environment," said Wayne Nastri, administrator for the EPA's Pacific Southwest region. "These air pollution controls, coupled with local environmental projects, will improve air quality for all the people of Arizona and improve visibility at our national parks."

Under the settlement, SRP will spend \$4 million on environmentally beneficial projects to reduce air emissions and mitigate the impacts of the alleged violations. The projects include the following:

- Retrofitting public school bus diesel engines in the Phoenix metropolitan area with pollution control equipment;
- Installing solar photovoltaic panels on school buildings in Arizona, and funding the maintenance of the panels for at least 10 years;
- Offering incentives to residential homeowners, such as rebates, toward the replacement of pre-1988 wood stoves with cleaner burning, energy-efficient stoves or hearth appliances.

Nitrogen oxides and sulfur dioxide emissions cause severe respiratory problems and contribute to childhood asthma. These pollutants are also significant contributors to acid rain, smog, and haze which impair visibility in national parks. Air pollution from power plants can travel significant distances downwind, crossing state lines and creating region-wide health problems.

This is the fifteenth settlement secured by the federal government as part of its enforcement initiative to control harmful emissions from coal-fired power plants under the Clean Air Act's New Source Review requirements. The total combined SO₂ and NO_x emission reductions secured from these settlements will exceed over 1.8 million tons each year once all the required pollution controls are installed and operating.



Ashtead Technology Management Team Acquires Business

Management Team Acquires Ashtead Technology Rentals Ltd

❖ Ashtead Technology Rentals Ltd, a high-technology rental equipment supplier, recently announced that its management team, with backing from Phoenix Equity Partners, has successfully acquired the business in a \$183.7 million management buyout from Ashtead Group plc. The buyout was led by Andy Holroyd, President of North American Operations and Andy Doggett, Managing Director.

As an independent business, and with additional financial backing, Ashtead is focused on growing the services offered to the inspection and environmental monitoring sectors, as well as the offshore oil and gas industry.

Commenting on the transaction, Andy Holroyd states, "I am looking forward to the future; we have some exciting times ahead of us with an eye on growing the business into an even larger global player than we are today. This new partnership offers a tremendous opportunity for Ashtead. With Phoenix providing the support we need to take the business on to the next level, I am confident that we can develop an even greater presence in the rental industry by



GRIZZLY Trackout Control Device

The shaking of the vehicle as it drives across the Grizzly Trackout Control Device knocks dust, mud, and other debris off the vehicle tires and chassis which falls into the free space below the grate making the trackout device virtually maintenance free.

Minimize Trackout from Your Construction Site!

- Patented method to minimize the trackout of dirt, mud, dust & debris*
- Recognized innovation that is an improved method to control trackout
- Reusable, transportable, and can be expanded to any length required
- Reduces the cost of clean-up on the road
- Promotes a safe construction site by slowing exiting traffic
- Helps control Particulate Matter (PM10) to help improve air quality
- Sizes available: 10 ft. & 20 ft. widths & any length in 8 ft. sections

*Patent numbers 6,981,818; 6,881,006; 7,059,799 & more patents pending

Grizzly Trackout Control • P.O. Box 10970, Tempe, AZ 85284
1-800-761-0056 • www.trackoutcontrol.com

broadening our territories and extending our reach into areas that we may have not been able to consider otherwise." Chris Hanna, Partner at Phoenix, said: "We are delighted to have the opportunity to acquire Ashtead Technology Rentals, a clear leader in its markets with a strong customer base and a number of exciting opportunities for growth. The management team has done an outstanding job in building a truly impressive business and we are delighted to have the opportunity to work in partnership with them over the coming years to develop the business further."

Ashtead Technology Rentals can be contacted at 800-242-3910.

Continued on page 22



DIVERSIFIED TRANSPORTATION, INC.

100% WDBE 8@ Certified
Now serving Las Vegas, NV Locally
WWW.DIVERSIFIEDTRANSPORTATION.US



Partial or Full Loads
HAZ • NON-HAZ • Special Commodities
20 - 40 Yard Roll-Off Bins • LiftGate Logistic Vans

Call or Email Dianne Sholl
602-455-0350
DTlinPhx@aol.com Phoenix, AZ



News Briefs:

Continued From Pg 21

Columbia Analytical Expands Southwest Operations

❖ Columbia Analytical Services, Inc., recently announced expansion of its Phoenix, Arizona, laboratory with the addition of new gas chromatography mass spectrometers (GC/MS), autosamplers and microbiological testing capabilities. "Adding capabilities and capacity has been a natural part of our growth since our purchase of the Phoenix property earlier this year," said Steve Vincent, president of Columbia Analytical. "These investments reinforce our long-term commitment to serving Arizona and the Southwest region."

As part of its growth strategy, Columbia Analytical has also launched a client access web portal where clients can obtain their lab reports and other documents online.

"Our new web system will add value to our customers by offering access to detailed project data at their convenience," said Beth Proffitt, vice president of corporate business development and acting laboratory director. "We are excited about our growth and are looking forward to providing even better service to our clients through these changes."

Proffitt was recently promoted to the position of vice president, corporate business development and has been in the environmental laboratory industry for more than 21 years. She will continue to provide support and operate from the Phoenix location.

"Beth is an outstanding resource to have in the Southwest region," said Vincent. "She will be expanding her efforts on our regional and national markets. We are now hiring to fill

Beth's former lab director position as well as other new analyst positions in the Phoenix laboratory. We take pride in our experienced staff and look forward to our future growth."

For more information on Columbia Analytical, please contact Steve Vincent at 360.577.7222 (svincent@caslab.com) or Beth Proffitt at 602.437.0330 (bproffitt@caslab.com) or visit the company's website at www.caslab.com.

Maricopa County Air Quality Violators Pay over \$577,000 in August

❖ Maricopa County Air Quality Department announced recently \$577,640.45 in air quality violation settlements made during the month of August 2008. The settlement cases for August are listed below including the following three highest settlements for the month:

Isola USA Inc. signed two separate settlement agreements effective August 1st totaling \$100,000 to resolve 35 alleged air quality violations. There were 19 Notices of Violation [NOVs] resolved under Isola's former Title-V permit and 16 NOVs resolved under the current Non-Title V permit. Details on the 35 alleged violations are listed in the table below. The alleged violations occurred at 165 S. Price Road in Chandler, AZ. Isola USA's office is located at 165 S. Price Road in Chandler. The settlement amount was paid in full on August 18, 2008.

Arizona State University signed a settlement agreement for \$87,000 effective August 15th to resolve 11 alleged air quality violations. As part of the \$87,000 settlement, \$52,562 will fund a supplemental environmental project [SEP] in which ASU has agreed to host five free asbestos compliance educational seminars. One seminar is to be

Environmental Compliance Solutions, Inc.

Create your Emergency Response Plan on-line, in a user-friendly, secure SSL, web-based, environment. Be in compliance with local, state & federal emergency plan reporting requirements, while providing your EMERGENCY RESPONDERS with up-to-date, vital information about your facility. Visit our website at:



www.encompsol.com
Or, call us toll-free at 877.655.6952

"PROVIDING VITAL EMERGENCY RESPONSE
INFORMATION IN THE 21st CENTURY"

www.caslab.com

Trusted technical expertise.

Columbia Analytical is an employee-owned, full-service environmental analytical network with laboratories and service centers nationwide. Columbia Analytical features over 125,000 combined square feet of facilities.

Testing services offered in SW Region:

- Air
- Ground Water
- Drinking Water
- Stormwater
- Wastewater
- Hazardous Waste
- Mobile Laboratories
- Elemental Analyses

We have earned our reputation as the most responsive, high quality, and cost-effective laboratory, tailoring each project to meet the client's data quality objectives.

Visit our website or call
800.927.5183

Our Project Chemists are available to assist you in setting up a project that will make your company successful.

 **Columbia
Analytical Services™**

www.caslab.com

ENVIRONMENTAL INSTRUMENT RENTALS



A sample of our rental inventory:

- Air Quality Monitors
- GPS
- Toxic Gas Monitors
- Industrial Hygiene
- Water Quality Sampling
- PID's/FID's
- And much more!!
- Soil Sampling Kits

To view our complete inventory on line please visit www.ashtead-technology.com

Call us toll-free 800-242-3910

For service in the Phoenix Metro Area please call 602-740-7199 or 800-242-3910.

ASHTHEAD TECHNOLOGY RENTALS

given at each of the ASU campuses. All of the alleged violations involved asbestos at a renovation project conducted in August 2006. The alleged violations occurred at the ASU Main Campus in the Memorial Union TV/Lounge room #38 in Tempe. ASU's office is located at 1100 E. University Drive, Suite 110 in Tempe. The amount of \$44,950 is due to the department in full on September 15, 2008.

Nesbitt Contracting Co. Inc. signed a settlement agreement for \$36,617 effective August 18th to resolve nine alleged air quality violations. The alleged violations include: failure to install, maintain and use a suitable trackout control device; failure to immediately clean up trackout, carryout, spillage and/or erosion and failure to implement control measures before, after and while conducting dust generating operations. The alleged violations occurred at the following three locations:

- Power Road & US 60 in Mesa
- Scottsdale Road & Thunderbird Road in Scottsdale
- Arizona Avenue & Elliott Road in Chandler

Nesbitt Contracting Co.'s office is located at 100 S. Price Road in Tempe. The settlement amount was is due in full on September 8, 2008.

A complete list of August 2008 enforcement settlements is available in a table at <http://www.maricopa.gov/aq/news.aspx>.

Advertiser Index

Aero Automatic Sprinkler Co.	11	Environmental Response, Inc.	20
ARCADIS	6	EnviroSure Solutions	11
Ashtead Technology Rentals	23	Gatekeeper Reg. Roundup 2009	3
ATC Associates	19	Grizzly Trackout Control	21
AWOS	2	Hazard Prevention Institute	11
Az State University EH&S Seminars	4	Kary Environmental Services, Inc.	7
Belfor Environmental	17	LFR Inc.	23
Carter Affiliates, Inc.	19	Liquid Environmental Solutions	5
Chemical Transportation, Inc.	18	MP Environmental	17
Clean Harbors	2	N. Weiss Associates, Inc.	11
Clear Creek Associates	2	NW Env. Training Center	19
Columbia Analytical Services	22	PSC	4
Conestoga-Rovers & Associates	8	Terracon	11
Diversified Transportation Inc.	21	Turner Laboratories, Inc.	7
Emergency Restoration Experts	5	Univar USA Inc.	24
Env. Compliance Solutions, Inc.	22	Wetland Seminar/Ceremony/Cookout	23



More than remediation.

Asbestos, Lead and Mold Assessments
Property Condition Assessments
LEED™ Services
Industrial Hygiene Services
Geotechnical Engineering
Construction Materials Testing

PHONE: 480-894-2056



www.atcassociates.com



"Join Apache Nitrogen Products, Inc. as we celebrate the 10 year anniversary of the Apache Water Treatment Wetland and accomplishing a major Superfund milestone"

La Fiesta de las Cienegas
November 12 - 13, 2008

Wednesday, November 12th
Wetland and Riparian Ecology Seminar

8:00 a.m. – 4:30 p.m.

Manning House
 450 West Paseo Redondo, Tucson, Arizona

Thursday, November 13th
Wetland Ceremony and Cookout

10:00 a.m. – 2:00 p.m.

Apache Wetland
 Apache Powder Road (follow the arrows)
 Benson, Arizona

All events are free! But registration is required.
 For more information contact Pamela Beilke at 520-720-2114
 or pbeilke@apachenitro.com



A World Leader In Environmental Services and Chemical Distribution

**ChemCare® is a comprehensive waste management
and disposal service from Univar USA.**

You can depend on Univar to help you select the most economical and environmentally sound waste disposal technology available anywhere. We manage and dispose of your hazardous and non-hazardous waste products safely, quickly and efficiently.

Univar - Phoenix

50 S. 45th Street
Phoenix, AZ 85043-3907
1-800-909-4897

Univar - Tucson

3791 E. 43rd Place
Tucson, AZ 85713-5403
1-800-909-4897

For more information, please call us or visit our Web sites
www.univarusa.com or www.chemcare.com

