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ARIZONA

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SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT:

SUSTAINING FOODBORNE ILLNESS PREVENTION

BY NICHOLAS R. HILD, PhD PG 7

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2016
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Wednesday, March 30, 2016 **CDR LISA DELANEY**, MS, CIH, Assoc. Dir. for CDC's Emergency Preparedness and Response, "Preparing for & Executing NIOSH's Response to Domestic Public Health Emergencies".

Program Highlights

Tuesday, March 29, 2016 **Water Quality Panel**. Moderated by Sarah Porter, Director, Kyl Center for Water Policy, Morrison Institute, ASU.

Air Quality Panel. Moderated by Mannie Carpenter, Stantec. **ADEQ Updates from New Deputy Director Bret Parke and ADEQ Division Directors.**

Wednesday, March 30, 2016 **Semiconductor Industry Focus**. A panel of experts in the fields of air, water, waste, and health & safety issues discuss comprehensive issues & solutions to regulatory and technical hurdles within the Semiconductor Industry. Moderated by Chuck Paulausky, CP Safety & Environmental.

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FROM THE EDITOR



As the Journal begins our 14th year of publication, I would very much appreciate hearing from all of you in Arizona's environmental management community, with your comments and suggestions about the Journal. If you could take a few minutes, please complete the Journal READER SURVEY on page 6, and fax back to me at 480-422-4430. Every survey is important -- thank you!

We are approaching the time of year when many organizations host their annual conferences and summits. These events are great opportunities to meet with your environmental colleagues, learn about the latest regulatory developments and industry technology, and meet with your current (and potential) suppliers & consulting professionals. Be sure to read the advertisements for the upcoming Gatekeeper Regulatory Roundup (page 3), the Arizona Health & Safety Summit (page 14), the SAEMS Compliance Continues RCRA (page 3).

If you would like to contribute an article to an upcoming issue of the Journal, or have questions about advertising, please call or email me at the number below. Thank you!

Sincerely,
Jim Thrush, M.S. Environmental Management
Editor & Publisher 480-422-4430 x42
Email: jimthrush@cox.net

JOURNAL OF ENVIRONMENTAL MANAGEMENT ARIZONA

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ARIZONA

READER SURVEY

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Journal READER SURVEY

This issue begins our 14th year serving Arizona's environmental management community! We hope you have found the Journal a valuable resource. As the environmental and safety management industry has evolved over the years, we have worked to keep Journal content current and useful to you. Please help us improve the Journal by providing us your reader feed back. Complete this survey, and fax to the number above. If you have any questions email jimthrush@cox.net or call 480-422-4430 x42

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SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

Nicholas R. Hild, PhD.

SUSTAINING FOODBORNE ILLNESS PREVENTION



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It is flu season so let's talk about the unpleasant subject of how it is we get exposed to, or avoid exposure to, harmful bacteria and/or virus' that make us sick.

It is bad enough to think about coming into contact with viruses and bacteria in public places---think about it---who is that person waiting on you in the restaurant or fixing you that

cocktail with the orange slices and maraschino cherries at the bar, and who was that person who sliced those lemons that you have clinging to your water glass? Or, more importantly, did the person serving you wash his or her hands lately? Or, even *more* importantly, after they used the restroom? For me, that's a thought I try really hard not to have except it has kept me from answering "yes" to the question every waiter asks: "do you want lemon with that water?"

The fact is, we see a lot of *E. coli* being targeted as the bacteria most likely to have caused your 24 hour bout with the digestive issues you had after eating out, but there are actually a host of other probable causes that come under the same dictate to..."*wash your hands several times a day...and, always after using the restroom!*" And, now, we are hearing that washing your hands often is the best way to avoid picking up the flu bug, so discussing the subject is both timely and important during this flu season, even if it isn't directly about sustainability or sustainable development.

But, isn't it really a sustainability thing if we need a refresher on what it really means to properly, "*wash your hands?*" And, do we really know whether or not soaping thoroughly makes the procedure any more effective? Certainly, as noted, with the flu season upon us, we need another reminder that washing hands frequently throughout the day is the most effective way to keep virus or bacterial germs from spreading.

What got me thinking about this was a *Popular Mechanics* editorial (February, 2015) updating their readers during the start of last year's flu season: what could be more sustainable than a reminder

to 'educate' the masses on how to minimize the spread of germs that cause flu and digestive distress?

So, let this be a reminder with an added '*prescription*' for what it means to wash your hands properly to minimize your chances of spreading germs that will cause others to be exposed and get sick. Here's what we need to know:

The Mayo Clinic website notes that, among the many strains of *E. coli*, only a few trigger diarrhea. One group of *E. coli* — which includes O157:H7 — produces a powerful toxin that damages the lining of the small intestine, which can cause bloody diarrhea. You develop an *E. coli* infection when you ingest this strain of bacteria. And, this is the most often seen bacterial infection that studies have shown are passed along by restaurant and bar workers who serve the public.

A bacterial infection differs from a viral infection, like the common flu that became a 2015 winter-time epidemic across the U.K. It isn't my intent to discuss treatment for either malady; rather, we need to focus on 'prevention' and that involves sanitation and/or ways that germs can be prevented from exposing people (to the 'germs') in the first place. That pretty much boils down to washing hands and avoiding contact with other people, something difficult to do in our society.

So, going back to the issue of whether or not soap is important in the battle of germ avoidance: contrary to popular thought, soap doesn't kill viruses. What soap actually does is to facilitate the *loosening* of virus' grip on the skin, thereby allowing the water to wash them off. So, how long is long enough to actually wash your hands? The Cancer Disease Center (CDC) and other disease and medical research agencies have suggested that in order to get children to wash long enough (to facilitate virus' removal), have them sing the alphabet or count to 50 (in their heads and not out loud) while washing one hand with the other. The goal is to keep hands under flowing water for 30 to 60 seconds, enough time to wash off those slippery viruses or bacteria and it's a good rule of thumb for adults, too.

And, if using soap is an inconvenience, then just ensure that you use copious amounts of water for a long enough time to get the viruses and bacteria off; the soap doesn't do anything that water won't do by itself and that's true for both viruses and bacteria, since bacteria are not osmotically balanced, so if you immerse them in water, the pressure outside the 'cell' becomes greater than inside and the cell *bursts* and slides off.

The point is, in restaurants and bars, it doesn't really matter if food and drink servers use soap when washing their hands as long as they spend enough time with their hands under running water and rubbing their hands (washing one hand with the other) long enough, for bacterial and virus' (germs) will be washed off. Of course, we could require all food and drink establishments to require their employees to wear sanitary 'gloves' but it isn't likely such a requirement would be embraced by the food industry because it would be yet another supervisory task that would need to be over-seen and the expense of providing the gloves for employees would be seen as cost-prohibitive.

So, what can we do when it comes to protecting ourselves from the possibility of being exposed to a virus or bacterial infection in our daily pursuit of eating lunch or dinner in a restaurant? Teach your children about food sanitation and how to practice good sanitary habits themselves. In that way, we will ensure that they, in turn, will teach their children and the next generations how to keep from getting sick; and in the true meaning of sustainability, so will their children's, children's, children.

Nicholas R. Hild, PhD., is an Emeritus Professor and Sustainability Scientist in the College of Technology and Innovation and the founder of the Environmental Technology Management program at Arizona State University. Dr. Hild has extensive industrial environmental engineering and management experience as well as continuing to be a consulting environmental engineer for the past 40+ years. Reach him at www.worldsleadingexpert.com or email at drnick@asu.edu.

NEWS BRIEFS

AG BRNOVICH STATEMENT: U.S. SUPREME COURT GRANTS STAY BLOCKING EPA CLEAN POWER PLAN

❖ Arizona State Attorney General Mark Brnovich issued the following statement on February 9, 2016, after the U.S. Supreme Court granted an application for a stay blocking the EPA Clean Power Plan from going into effect. Arizona is part of a 26-state coalition led by West Virginia and Texas fighting against federal overreach:

"This is a huge victory for Arizona," said Attorney General Mark Brnovich. "The Clean Power Plan is an abuse of power, it's regulation without representation. This is a tremendous step in stopping the Obama administration's unconstitutional mandates and protecting Arizona jobs and ratepayers."

The Attorney General's Office Federalism Unit partnered with the Arizona Corporation Commission to file the multi-state lawsuit against the EPA. The Stay will remain in effect until a federal appeals court in Washington rules on the plan, which could be later this year. Under the stay, the EPA won't be able to enforce a September 6, 2016 deadline for Arizona and other states to either submit their emission reduction plans or request a two year extension.

EPA ISSUES 2014 TOXIC RELEASE INVENTORY DATA FOR ARIZONA

❖ The U.S. Environmental Protection Agency recently released its annual Toxics Release Inventory (TRI) report that showed that the majority

of toxic chemicals managed at industrial facilities in the U.S. increased as a result of production, while releases into the environment decreased. The trend showing a decrease in releases to the environment is attributed to an increase in recycling rates.

A total of 271 Arizona facilities reported 129.8 million pounds of production-related toxic chemicals, 34.6 million pounds recycled and 76.8 million pounds released on-site. Arizona's total releases (both on-site and off-site) was 78.5 million pounds, an increase of 10 percent when compared to the 70.1 million pounds reported in 2013.

"People have a right to know what chemicals are being produced in their communities, and how to find out by accessing the EPA's Toxic Release Inventory on the web," said Jared Blumenfeld, EPA's Regional Administrator for the Pacific Southwest. "The latest data shows that industry is recycling more and more each year, which is good for the economy and for the environment."

The top 5 producers in Arizona are:

- Asarco Hayden Smelter, a copper mine and smelter in Hayden
- Freeport-McMoran, a mine in Miami
- Freeport-McMoran, a mine in Morenci
- Springerville Generating Station, an electric utility Springerville
- Asarco Mission Complex, a mine in Sahuarita

The top 5 recyclers in Arizona are:

- Apache Nitrogen, an ammonium nitrate products producer in Saint David
- Asarco Hayden Smelter, a copper mine and smelter in Hayden
- CMC Rebar, a metal fabricator in Mesa
- Safety Kleen, a waste treatment facility in Chandler
- Rogers Corp Advanced Circuits, a circuits manufacturer in Chandler

Nationally in 2014, approximately 84 percent of the 25 billion pounds of toxic chemicals were managed through the use of preferred practices such as recycling, energy recovery, and treatment. Recycling accounted for approximately 48 percent of that figure.

In the TRI, a "release" generally refers to a chemical that is emitted to the air, water, or placed in some type of land disposal unit. Most of these releases are subject to a variety of federal and state requirements designed to protect human health and the environment. Typically, facilities that report to the TRI, considered producers, are larger industrial operators involved in manufacturing, metal mining, electric power generation, chemical manufacturing and hazardous waste treatment.

TRI data is submitted annually to EPA, states, and tribes by facilities in industry sectors such as manufacturing, metal mining, electric utilities, and commercial hazardous waste. Under the Emergency Planning and Community Right-to-Know Act (EPCRA), by July 1 of each year facilities must report their toxic chemical releases for the prior year. The Pollution Prevention Act of 1990 also requires facilities to submit information on pollution prevention and other waste management activities related to TRI chemicals.

The current TRI toxic chemical list contains 594 individually-listed chemicals in 31 chemical categories. In general, chemicals covered by the TRI Program are those that cause one or more of the following: cancer or other chronic human health effects, significant adverse acute human health or environmental effects.

The Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted to encourage and support

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emergency planning efforts at the state and local level, and to provide the public with information concerning the amounts, location and potential effects of chemical hazards present in their community. To accomplish this, EPCRA created TRI, a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain industries and federal facilities.

For more information about the Emergency Planning and Community Right-to-Know Act and to get TRI factsheets for your community, please visit: <http://www2.epa.gov/epcra>

For more Arizona information, including multi-year trends, please visit: http://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet_forstate?pstate=AZ&pyear=2014&pParent=TRI&pDataSet=TRIQ1

To learn more about how different facilities have managed and reduced their toxic chemical wastes and how they compare to similar facilities, use the TRI Pollution Prevention (P2) tool: <http://www3.epa.gov/enviro/facts/tri/p2.html>

EPA RELEASES GUIDE FOR HEALTHIER SCHOOL RENOVATIONS

New booklet will help students remain healthy during renovation projects

❖ The U.S. Environmental Protection Agency released recently a new booklet entitled Sensible Guide to Healthier School Renovations that will help schools around the country keep school environments healthy while cleaning up contaminants such as asbestos, mold, mercury, lead, and radon that are associated with renovations. The guide was announced by EPA Regional Administrator Jared

Blumenfeld during the Children's Environmental Health Symposium in San Diego, California.

"Our children are more sensitive than adults to environmental contaminants because their respiratory systems are not fully developed, and they are more active," said Mr. Blumenfeld. "It is critical for schools to understand potential hazards when undertaking renovation projects."

"Children spend many hours each week in school, and healthy school environments optimize children's learning potential," said Dr. Ruth Etzel, EPA's Director of the Office of Children's Health Protection. "School renovations, if done incorrectly, have the potential to present environmental health risks to children. This guide provides an overview of potential hazards that schools face during renovations – it provides best management practices to avoid exposure and protect children's health."

The guide also reviews the risks, regulations and resources available for schools to use during school renovations and includes strategies for reducing exposure to environmental contaminants. The guide includes a robust reference section with links to more in-depth guidance. EPA created this guide in response to interest from parents, schools and public health advocates for a one-stop, easy to understand document that outlined key environmental health considerations when renovating schools.

School renovations have the potential to increase children's exposure to harmful contaminants which can lead to serious health risks. Addressing the unique challenges and

Continued on page 11

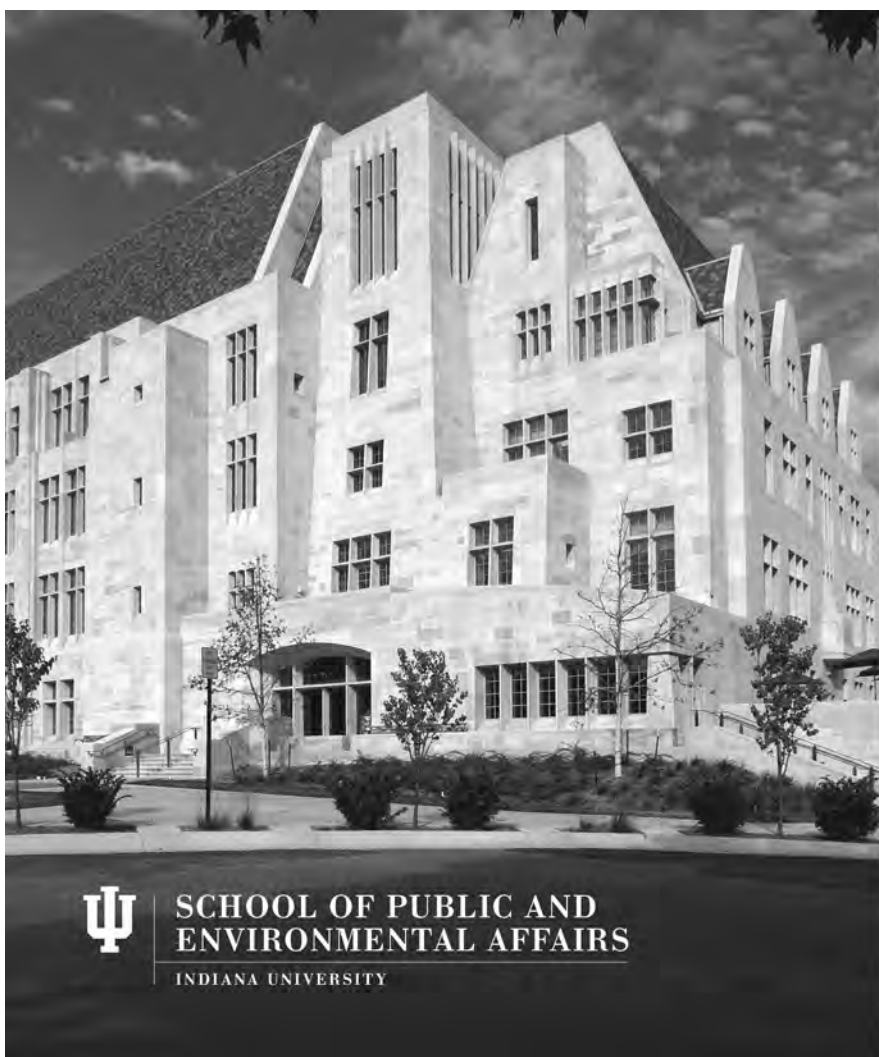
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Larry Olson, PhD.

EDITORS NOTE:
Dr. Olson will return next issue with a new "It's All About Chemistry" column. For this issue, we reprint one of our favorite columns from a previous issue.
Editor

IT'S ALL ABOUT CHEMISTRY

FINAL IMPRESSIONS OF AFRICA

Sometimes when you travel you are so far removed from your normal day to day activities that it seems like a different world. Yet when you return it doesn't take long to get so caught up in your routine that it hardly seems possible that a week ago you were sitting in a mud brick hut with a straw roof and a fire smoldering under a pot of beans. If it weren't for the pictures, it might have all been just my imagination.

Following our visit to the AIDS clinic I described in the last column, my wife and I were incredibly fortunate to be able to visit three of the clients in their homes in a rural area outside of Mutare, Zimbabwe. The village chief was waiting to greet us at the first house and each of the families was excited and proud to share some of their life with us.

I've been teaching for years about the health issues created by burning biomass for indoor heating and cooking. But I couldn't convey the sense of smell from burning wood and a little cow dung to drive away mosquitoes that permeates a cooking hut where families typically spend hours each day, especially when it is cold. I'll remember that odor, the dim light making others just barely visible, and a chicken walking in the door to see what all the fuss was about for the rest of my life. It was easy to imagine the family spending many quiet evenings here just talking – no TV, no cell phone, no electricity or running water.

It seems to us that it would be impossible to live on \$1 a day. But that is about all the cash that each of these families earned from selling some chickens, rabbits, tobacco or vegetables. Yet they were in control of much of their lives. They grew their own food, built their own homes and dug their own wells. They needed medicines (especially for AIDS, malaria, diabetes or a myriad of other diseases), malaria bed nets, and some proper seed for next year's crops. They needed money for the fees charged to send their children to school and the required uniforms. But for the most

part they were self sufficient and able to provide for their families without relying on others.

I don't understand the land tenure system in Zimbabwe, so I'm not sure how these families were allocated the land that they were on. I think it has much to do with the village system. Approximately 30 families or so make up a village although each of these homes was not in sight of another house, so the village was very spread out.



The economy in Zimbabwe virtually collapsed five years ago. Inflation reached 100,000% with the result that the Zimbabwe currency was abandoned in favor of the U.S. dollar. That has stopped the runaway inflation, but left prices out of the reach of many ordinary citizens.

Unemployment in the capital city of Harare is 85-90%. The result is that crime is rampant. In the cities, almost every window was barred and doors were padlocked. Even in the rural homes we visited, the windows in the cooking hut were small so no one could break in. A generation of talented professionals was lost during this time as they fled to other countries where they could earn a living.

In many ways it is not easy to live in Zimbabwe today, but we came away not depressed with the situation, but with great admiration for the people, especially those who invited us into their homes and shared a moment of their lives with us.



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 environmental management. He can be reached at 480-727-1499, or by email at Larry.Olson@asu.edu

NEWS BRIEFS

CONTINUED FROM PAGE 9

opportunities of school renovations can help schools save money and support student performance. Recent surveys report that 53% of public schools need to spend money on repairs, renovations, and modernization – at an estimated cost of \$197 billion. Understanding the suite of risks in a renovation at the beginning of the project can help schools avoid expensive, time-consuming cleanup and remediation – and improve the health and academic success of children in schools nationwide.

The Children's Environmental Health Symposium was held on January 27 and 28 in San Diego, Calif., and focused on environmental health issues in the border region, how prenatal and childhood exposures can impact children's health and development, and what participants can do to address or mitigate children's environmental health risks.

The guide is available online at <http://www.epa.gov/schools/sensible-guide-healthier-school-renovations>

EPA ANNOUNCES AVAILABILITY OF \$26 MILLION TO CLEAN UP DIESEL ENGINES NATIONWIDE / \$4.4 MILLION AVAILABLE FOR AZ, CA, NV, AND THE PACIFIC ISLANDS

❖ The U.S. Environmental Protection Agency announced recently the availability of \$4.4 million in grant funding to establish clean diesel projects aimed at reducing emissions from the existing fleet of diesel engines in Arizona, California, Hawaii, Nevada, Guam, American Samoa, and Northern Mariana Islands.

Diesel-powered engines move approximately 90 percent of the nation's freight tonnage, and today nearly all highway freight trucks, locomotives, and commercial marine vessels are powered by diesel engines.

EPA is soliciting proposals nationwide for projects that significantly reduce diesel emissions and exposure, especially from fleets operating at goods movements facilities in areas designated as having poor air quality. Priority for funding will be given to projects that engage and benefit local communities and applicants that demonstrate their ability to promote and continue efforts to reduce emissions after the project has ended.

Eligible applicants include regional, state, local, tribal, or port authorities with jurisdiction over transportation or air quality. Nonprofit organizations may apply if they provide pollution reduction or educational services to diesel fleet owners or have, as their principal purpose, the promotion of transportation or air quality. The applicants may apply until April 26, 2016.

EPA anticipates releasing a separate Request for Proposals for Tribal applicants in March.

Since the first year of the Diesel Emissions Reduction Act (DERA) program in 2008, EPA has awarded nearly 700 grants across the U.S. Many of these projects fund cleaner diesel engines that operate in economically disadvantaged communities whose residents suffer from higher-than-average instances of asthma, heart and lung disease.

For more information and to access the Request for Proposals, visit <http://www.epa.gov/cleandiesel/>

clean-diesel-national-grants.

For more information on the West Coast Collaborative, visit: <http://www.westcoastcollaborative.org/>

For more information on the National Clean Diesel campaign, visit <http://www.epa.gov/cleandiesel>.

ADEQ RECOGNIZES 12 NEW MEMBERS OF RAPIDLY GROWING VOLUNTARY ENVIRONMENTAL STEWARDSHIP PROGRAM (VESP)

❖ Arizona Department of Environmental Quality (ADEQ) officials recognized recently the 12 newest members of its Voluntary Environmental Stewardship Program (VESP), adopted by the state Legislature and signed into law to provide recognition and incentives for organizations to go above and beyond environmental law requirements.

To view a list of ADEQ VESP members, please visit: http://www.azdeq.gov/downloads/vesp_participants.html

"This important program highlights the positive changes Arizona businesses and municipalities are making in their operating procedures to protect the environment," ADEQ Ombudsman Ian Bingham said. "We encourage others to join VESP to proactively and cost-effectively apply innovative technologies, tools and strategies and to showcase their activities statewide," he added.

The ADEQ VESP offers five levels of recognition for businesses, municipalities, non-profits, and schools large and small for showcasing their environmental responsibility and contributions, which protect and enhance Arizona's unique environment for future generations. VESP member incentives include reduced inspection frequency and coordination of multiple on-site inspections; reduced reporting requirements; early notice of enforcement rulings; conferences; and recognition.

For more detailed information about the ADEQ VESP, please visit <http://www.azdeq.gov/vesp.html>, or to learn more about joining the program, contact ADEQ Ombudsman Ian Bingham at (602) 771-4322, or by email at idb@azdeq.gov.

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.



WWW.SAEMS.ORG

We would again like to thank all of those who attended the Annual Pima County LEPC Hazardous Materials Safety Workshop that was held at the Desert Diamond Casino in Tucson, Arizona on January 27, 2016. Once again LEPC hosted an informative event and SAEMS is very proud to have been able to support the event over the last few years. Our February luncheon featured Chris Hortsman, a Graduate Student in Civil Engineering at the University of Arizona, who presented on the Aqualibrium Arizona Project, which is a competitive opportunity for high school students to learn about their local water supply through a hands on activity that simulates a real world engineering problem.

Please note in this issue that the annual SAEMS RCRA Seminar Registration Form is now available (see page 3). The event will be held on May 5, 2016 at the Hilton East here in Tucson, Arizona. Please consider attending or sponsoring this event. This seminar is not only informative, but it is also a major reason SAEMS is able to reward over \$10,000 annually in college scholarships to the University of Arizona. This year should be especially fun as we celebrate 40 years of RCRA.

Please consider attending SAEMS Luncheons and Events for informative presentations and networking opportunities. Also please note that SAEMS is now offering free memberships to students so they may begin networking with environmental professionals while still pursuing their educational goals. For more information regarding SAEMS and upcoming events please visit our website.

Best Regards!

Derek Koller
President



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On January 27th, 2016, the Alliance and Pinal County Air Quality Department co-hosted our 3rd Annual Air Quality Permit Compliance Assistance Seminar in Florence, Arizona. Fifty-six registered attendees participated, with presentations from Pinal County Air Quality Department regulators as well as industry experts (see photo and article on page 14.) Our thanks to Michael Sundblom, Director, Pinal County AQ Dept., Kale Walch, Senior Permit Engineer, and all the Pinal County staff for their participation!

The Alliance will co-host an Air Quality Permit Compliance Assistance Seminar in July, in partnership with Maricopa County Air Quality Dept. We have not selected the date, but by the time you receive this issue the date and location will be posted on our website.

If you have questions on our seminars or on Alliance Membership, contact me at Gregory.Bopp@Honeywell.com, or call our office at 480-242-7392.

Greg Bopp
Chair



WWW.AZCHAMBER.COM

The Arizona Chamber of Commerce & Industry and the Arizona Manufacturers Council's monthly Environmental Breakfast featured two special guests for the month of March: Division of Occupational Safety & Health (ADOSH) Director Bill Warren and Maricopa County Flood Control District Director Bill Wiley. Director Warren discussed the agency's Process Safety Interpretation Letter while Director Wiley gave an update on federal and state legislation that will affect Arizona businesses.

April's breakfast will be held on April 13, 2016 at the Sheraton Phoenix Airport Hotel located at 52nd Street and Broadway in Tempe. Breakfast is served at 7:00 AM and speakers begin at 7:30. For more information contact Cylee Gutting at cgutting@azchamber.com.

To register go to the Arizona Chamber web page at www.azchamber.com/events.

Cylee Gutting
Director of
Events



WWW.EPAZ.ORG

EPAZ will be announcing the winners of four scholarship awards at the 12th Annual Gatekeeper Regulatory Roundup conference March 29-30, 2016 at the Doubletree Hotel located on Priest & Broadway. We will be awarding over \$8,000 in scholarship funds to Arizona students that are investing their futures in the environment and who plan to join our community of environmental professionals.

Upcoming Events:

April 14, 2016 our luncheon will feature Steve Rakowski from Haley & Aldrich with an update on Toxic Release Inventory (TRI) and Chemical Data Reporting, just in time for the 2016 reporting deadlines.

April 22, 2016 we will be hosting our 12th Annual Scholarship Golf Tournament at the Legacy Golf Resort. Come out and enjoy the fun!

May 10, 2016 our Luncheon will feature Laura Malone & Tara Rosie from ADEQ with an update on the Arizona Petroleum Fund.

EPAZ hosts monthly luncheon meetings on the second Thursday of the month from 11:30 AM to 1:00 PM at the SRP PERA Club. For the most up to date information, event details and reservations please visit our website at www.epaz.org.

Lisa Culbert
Association
Manager



The SESH 38th Annual International High Technology ESH Symposium and Exhibition is returning to Scottsdale, Arizona. SESH 2016 will be held at The Scottsdale Resort and Conference Center at McCormick Ranch on May 2-6, 2016.

Topics at this year's symposium include air quality and greenhouse gases, water and waste water treatment, nanomaterials, conflict minerals, risk mitigation for high hazard chemicals, accidents & incident case studies, business continuity, EICC Code of Conduct, ethics, ISO Standards, sustainability, and emerging technologies. Detailed information on the program, professional development courses, and exhibition & sponsorship opportunities are available on the SESH website www.sesha.org.

Vicky L. Aviles
AZ Chapter
Co-Chair



**ARIZONA
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ARIZONAFORWARD.ORG

ARIZONA FORWARD CALLS FOR STATEWIDE FOCUS ON FOREST HEALTH

"Healthy Forests Impact Our Health, Environment, Economy & Quality of Life"

Arizona Forward released its newest primer – "Threats to Forest Health Put Arizona at Risk." It urges statewide attention for treatment and restoration to prevent the devastating fires that have scarred our state's landscape, tarnished watersheds, depressed the economy and threatened the quality of life for residents throughout the Grand Canyon State.

The nearly 30-page document is written in layman's terms and includes actions needed now to mitigate the impact of wildfires and threats to water quality. It encourages all Arizonans to engage in this critical issue, with a section dedicated to how everyone can be part of the solution.

Arizona Forward developed the primer, its fourth publication on key sustainability issues facing the state, to provide unbiased facts, background information and viable options to consider as Arizona undertakes efforts to restore and maintain healthy forests.

The primer notes that healthy forests are critical to maintaining a robust economy. "In addition to serving as places of beauty that attract tourism, forests are also custodians of the air and water Arizonans need to survive," the document states.

Fire is a natural process, but Arizona's forest are not in a natural state. Years of fire suppression and drought have ushered in the era of the megafire, as the Southwest experienced with the Wallow and Rodeo-Chediski fires.

"Arizonans can contact their elected representatives, and invest their time, talent and finances in the partnerships and organizations that are making a difference in restoring our healthy forests," said Eric Marcus, executive director of the Sustainable Economic Development Initiative (SEDI) and Co-chair of Arizona Forward's Healthy Forest Ecosystems Committee, along with Bruce Hallin of SRP. "Arizonans need to understand that unhealthy forests impact us all – no matter where in the state we live."

For a copy of the primer or additional information about Arizona Forward, visit arizonafoward.org.

Diane Brossart
President





A few of us took advantage of the nice February weather and long holiday weekend to have lunch and visit Tucson Electric Power's AREVEA Solar Boost Project at TEP's Sundt Generating Station. Instead of a stand-alone power plant, this concentrated solar power "booster" is integrated into the existing power plant, which saved on the capital cost of the project. Our thanks go to Zig Fang of TEP for helping us organize the tour, and to Jean Paul Crouzoulon of AREVA, who gave us a detailed and insightful presentation of Fresnel reflectors and the operation of the plant. (See our group photo from the tour above).

Upcoming events will be sent out to our members and posted to our website (www.awma-gcs.org). Currently, we are planning to have our next Happy Hour at Corduroy (on Central Ave) on March 24.

Mike Sonenberg, PE
Chair



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ARIZONA ENVIRONMENTAL STRATEGIC ALLIANCE AND PINAL COUNTY AQ DEPT HOST AQ PERMIT COMPLIANCE ASSISTANCE SEMINAR

The third annual one-day Pinal County AQ Permit Compliance Assistance Seminar, hosted jointly with Pinal County AQ Department and the Alliance, was held in Florence, Arizona, on January 27, 2016. Fifty-six registered attendees participated in presentations on a variety of permit-related topics, including: Design of a Permit (Kale Walch, Pinal County AQ Dept); Permitting Process (Anu Jain, Pinal County AQ Dept); Biomass Boiler Permitting (Andre Fuentes, Frito Lay); Compliance Inspections (Bob Farrell, Pinal County AQ Dept); Enforcement Procedures (Josh Dezeuw, Pinal County AQ Dept); Responding to Environmental Enforcement (Mitch Klein, Snell & Wilmer); Making \$\$\$ Being Green/Risk vs Reward as a business owner/How to make your business life miserable (Mark Salem, Salem Boys Automotive); Nonattainment Dust Rules (Kale Walch, Pinal County AQ Dept); Don't Rule Out Exceptional Events: A look at the proposed modifications to the Exceptional Event Rule (Amanda Reeve, Snell & Wilmer); Particulate Matter and Ozone (Mike Sundblom, Director, Pinal County AQ Dept). Dr. Nick Hild, ASU, moderated.

For information on Pinal County Air Quality Permit Compliance, contact Kale Walch, Senior Permit Engineer, at Kale.Walch@pinalcountyaz.gov. For information on the Alliance, call the Alliance office at 480-422-7392.

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Questions?

If you have questions on the Arizona Health & Safety Summit, e-mail us at asse@asseaz.org or call Erika May directly at 661.472.6592.

REGISTRATION: To register or for more information visit asseaz.com

■ 2016 March 29 & 30

12th Annual Gatekeeper Regulator Roundup

See our full-page advertisement on Page 4!

Location: The DoubleTree in Tempe

■ 2016 April 14



Luncheon Featuring: Speaker: Steve Rakowski, Haley & Aldrich. Topic: "Toxic Release Inventory and Chemical Data Reporting". Sponsor: Environmental Response, Inc.
Location: SRP Pera Club, 1 E. Continental Drive, Tempe, AZ

■ 2016 April 22



12th Annual EPAZ Scholarship Golf Tournament

Location: The Legacy Golf Club

Sponsor: Republic Services

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www.epaz.org



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