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REVISITING THE FUEL TAX ISSUE DR. NICK HILD Pg 12 **NEW TOOLS FOR** D PERMITTEES ΞI ALBERT H. ACKEN Pg 6

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JOURNAL OF Environmental Management

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ave you ever made or witnessed a mistake (who hasn't?) and learned a valuable lesson? Consider sharing your experience with our readers (you can write anonymously!) If there is interest, we will use these stories for a brief series of articles.

Below is a brief example. Not exactly an environmental issue, but it is a process related lesson that I think can apply in many situations.

Years ago, at a large computer manufacturer no longer in operation in Phoenix, a new engineer in the

circuit board fabrication facility had responsibility over an automated copper plating line—a huge row of tanks containing acids, rinsewaters, and plating solutions. Racks of circuit boards moved by mechanical lift from one tank to the next. The engineer noticed that when employees went to lunch, they often forgot to turn off the DI (deionized) rinsewater, wasting thousands of gallons of water. So he implemented a solution-he had the main DI water shut-off valve linked to the plating line control panel. When the power was off, the water would turn off, preventing flow during lunch hours.

Soon after, he noticed that plating solutions sometimes evaporated down below safe levels. He installed a level sensor connected to the control panel-if the solution evaporated below the control level, the line power would shut off until the water level was brought back up.

So what happened? The following day, solution in the plating tank evaporated below level, tripped the level sensor, and the plating line shut down. Circuit boards can be damaged from extended time in the acidic solutions, so it was urgent to get the line running. However, when the plater attempted to add water to the tank, he could not, because the water is cut off when the line power is off. And the line would not start until the water level was up. "Catch-22".

Unfortunately the event resulted in the loss of valuable circuit boards. Lesson learned? Perhaps, "watch out for unintended consequences" ?

Please let me know if you have experiences to share. Thank you!

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

JOURNAL OF ENVIRONMENTAL MANAGEMENT ARIZONA JOURNAL OF ENVIRONMENTAL MANAGEMENT ARIZONA EDITORIAL Publisher & Editor James Thrush, M.S. Env. Mgt., jimthush@ecx.net or 480-422-4430. SUBSCRIBE: chshomepage.com or 480-422-4430. RATES FREE to qualified EHS Professionals, others call. MAILING ADDRESS JEMA, 3145 E. Chandler Brd, Suite 110-641 Pfix, AZ 89048. ADVERTISING 480-422-4430 v82. Published 6 time/yar. Capyright © 2010 by JEMA, 3145 E. Chandler Brd, Suite 110-641 Pfix, AZ 89048. ADVERTISING 480-422-4430 v82. Published 6 time/yar. Capyright © 2010 by JEMA, Mirghs reserved. LEGAL DISCLAIMER Information presented in JEMA originates from sources presumed to be accurate and complete. Due to the rapidly changing nature of regulations and the law and our reliance on information provided by various sources, we make no warrany or guarantee concerning the accuracy or reliability of the content of JEMA. Readers are encouraged to contact authors, agencies, and advertises directly for verification/clarification. Content for informational purposes only, and should not be considered legal or professional advice. Consult your legal consul or environmental and safety regulations and standard safety, environmental, and professional practices.

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RECENT INSPECTION PROTOCOL CHANGES PROVIDE

NEW TOOLS FOR PREPARED PERMITTEES

Albert H. Acken Partner Lewis and Roca LLP

we legislation enacted in 2011 changed the inspection protocols for ADEQ, city agencies, county departments, and county flood control districts. In addition, Maricopa County is overhauling its compliance and enforcement programs. The regulated entities that will benefit from these new developments are those that have implemented a thorough internal compliance program, prepared for agency inspections, and become familiar with these new developments. This article provides a summary of the legislative efforts and Maricopa County's new inspection approach.

HOUSE BILL 2665: REVISED ADMINISTRATIVE PROCEDURES FOR ENVIRONMENTAL REGULATION

House Bill 2665 added several new administrative procedures and revised many others. A number of these provisions address the state agency inspection procedures found in A.R.S. §41-1009, which are made applicable to county air quality departments under A.R.S. §49-471.03.

Two provisions added to A.R.S. §41-1009 by HB 2665 apply only to "agencies with authority under Title 49," that is, ADEQ and county air quality departments. These two revisions codify best practices that these departments already are—or should be—following. For example, under new A.R.S. §41-1009(G), ADEQ or a county air quality department now must provide, upon request of a regulated entity, a written explanation of the reason an opportunity to correct was not allowed. Similarly, ADEQ and county air quality departments must now provide a full written explanation if they allege that a regulated entity is not in compliance with licensure or other regulatory requirements. A.R.S. §41-1009(J).

Other revisions to the state inspection statute apply to all state agencies and county air quality departments subject to the statute. The most noteworthy change addresses the potential consequences of an agency's noncompliance with the statute. Previously, evidence collected in violation of the statute could not be excluded except when the penalty sought was \$1,000 or less. Because most state environmental statutes authorize statutory penalties of \$10,000 or more, the provision was meaningless in the environmental regulatory arena. Now, an agency's failure to comply with required inspection protocols may be a basis to exclude evidence in a subsequent evidentiary hearing concerning the alleged violation, regardless of the size of the penalty sought. Although a judge would likely only invoke this provision for blatant agency violations, it does provide an additional incentive for agencies to comply with the letter of the law.

Another change resulting from this bill entitles a party to attorneys' fees and other expenses if the party substantially prevails in an administrative appeal of a county action. A.R.S. 949-471.01(A)(1). Previously, fees could be recovered against a county only in court actions, not administrative proceedings. This provision is likely to provide more benefit in the context of a permit appeal than an enforcement action because county departments almost always pursue enforcement actions through negotiated settlements and proceed to a court action if negotiations fail. They rarely pursue enforcement actions in formal administrative proceedings.

S.B. 1598: REGULATORY BILL OF RIGHTS APPLICABLE TO CITIES, COUNTIES, AND FLOOD CONTROL DISTRICTS Senate Bill 1598 extended the state's regulatory bill of rights to all cities,

counties, and county flood control districts. New A.R.S. §9-833 (applicable to cities), A.R.S. §11-1603 (applicable to counties, except county air quality departments which remain subject to A.R.S. \$41-1009), and A.R.S. § 4 8 - 3 6 4 3 (applicable to county flood control districts) incorporate inspection requirements that are quite similar to those found in the prior state version. Because SB

1598 draws from the prior state inspection statute, distinctions arise between the



inspection procedures applicable to ADEQ and county air quality departments and those applicable to cities, other county agencies, and flood control districts. For example, none of the changes to A.R.S. \$41-1009 enacted by House Bill 2665 are carried over to the new statutes governing city and county inspections.

Despite the differences between A.R.S. §41-1009 and these new inspection statutes, the application of the regulatory bill of rights to cities, counties, and flood control districts should lead to greater consistency than existed previously.

MARICOPA COUNTY AIR QUALITY DEPARTMENT'S NEW APPROACH

The third significant new development on the inspection front is the Maricopa County Air Quality Department's major shift in its compliance and enforcement approach. As part of an agency-wide reorganization announced in May, the Department explained that it would shift its focus to create a culture of compliance assurance. This represents a significant departure from what many perceived previously to be an enforcement-first/enforcement-only approach. This fundamental shift to a more collaborative relationship between the regulator and regulated community (more carrot, less stick) should have a significant beneficial impact moving forward, though of course, changes of this magnitude take time to implement in any organization.

In conjunction with the Department's philosophical shift and to ensure consistency with HB 2665, the Department proposed a new Notice to Comply Policy (Draft NTC Policy) in July. The remainder of this section describes some of the major provisions of the Draft NTC Policy. Please note, given that the Department hoped to adopt a final policy before the end of July, there is a good chance it will have taken effect by the time you are reading this. If there are any significant differences between the draft and final policies, the Department can be expected to identify them.

The purpose of the Draft NTC Policy is to ensure that Notices to Comply are applied "uniformly and fairly." Once the policy is adopted, a Notice to Comply will be issued for a "minor violation." The policy defines a "minor violation" using twelve factors and identifies several examples.

Put simply, minor violations will be accidental, non-recurring paperwork violations. The fact that these types of violations used to justify four or five-figure penalties from the Department is reason enough to support a new policy.

Specific examples of paperwork violations included in the Draft NTC Policy include failure to submit permit transfer within required times frames and failure to keep permit clearly visible and accessible on site. The examples of de minimis emissions-related minor violations included in Draft NTC Policy prove the general rule that few emission violations will be considered de minimis. Examples of de minimis emission violations include first-time violations of emissions crossing property line (but only if dust control measures are being applied) and failure to cover one-gallon or less containers of VOC-containing material.

Overall, despite the limited applicability of the Draft NTC Policy, it is a major improvement over the Department's April 2009 Notice to Comply Interim Policy. For one thing, the 2009 Policy did not promote consistency among inspectors, authorizing Notices to Comply at the discretion of each individual inspector. Additionally, the two policies differ significantly in their treatment of entities that have multiple facilities within Maricopa County. Under the 2009 Policy, more than one similar noncompliance issue at any facility under common control would make a Notice to Comply unavailable. The Draft NTC Policy takes a different approach, looking at each facility independently, recognizing that "each facility may be operated with unique conditions and by disparate staff."

CONCLUSION

Implementing a rigorous internal management process and being prepared when the inspector visits is the best way to avoid a time- and resourceconsuming enforcement action. House Bill 2665, Senate Bill 1598, and Maricopa County's new Notice to Comply policy provide new tools to those in the regulated community who are prepared and take the time to become familiar with these new developments.

Albert H. Acken is a partner in Lewis and Roca's Environmental, Natural Resources and Utilities Practice Group. His practice includes assisting industrial, manufacturing, energy, mining, and construction clients with environmental permitting and compliance, facility siting, and NEPA reviews. Prior to pursuing a legal career, Mr. Acken was an environmental and engineering geologist. He can be reached by email at AAcken@LRLaw.com.



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SSOCIATIONS 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.



HYDROLOGICAL

Please join us for the Arizona Hydrological Society's 24th Annual Symposium: Watersheds Near and Far: Response to Changes in Climate and Landscape, September 18-20, 2011 at the High Country Conference Center on the NAU Campus in Flagstaff, Arizona. We have a great program lined up which includes guest speakers Terry Fulp, PhD -Deputy Regional Director, USBR Lower Colorado Region; David A. Brown, Attorney - Brown & Brown Law Offices; Daniel G. Neary, PhD - Rocky Mountain Research Station; and Grady Gammage, Jr., Attorney - Gammage & Burnham Law Office.

Technical program topics include Basin Watersheds - Colorado, San Juan, and Little Colorado Rivers; Groundwater Models Supporting Watersheds; Recent Advances in Watershed Science; and many more! There are two great field trip opportunities, the Schultz Fire & Flooding Area and Beaver Creek Watershed and a great workshop: Making Sense of Nondetects and Data Analysis. The workshop is conducted by Dennis Helsel, PhD of http:// www.practicalstats.com, on September 20, 2011 1:30 pm to 5:00 pm MST. The cost is \$50. PLEASE NOTE:

You do not need to be registered for the AHS Symposium to attend this workshop! And don't forget to visit our sponsors and vendors they are what make the annual symposium such a great event!



AZAEP

WWW.AZAEP.ORG

ZAEP's May dinner meeting featured Professor Matt ${
m A}$ Chew, ASU School of Life Sciences, who gave an intriguing presentation on natural areas, landscape change, and man's role in the environment. Our June meeting featured representatives from he Standards Counsel for Intel Corporation and Joshua Wray of ASU, who presented the innovative algae carbon capture technology being tested at Intel's Chandler fab. Our next meeting will be held Aug. 23, where Mark Larson, President of Maricopa Audubon Society, will speak on our rich biological heritage here in the Valley of the Sun.

Coming Sept. 9th, AZAEP willsponsor a half-day workshop on state-of-the-art public participation techniques for environmental professionals. This workshop will be conducted by the internationally-known experts John Godec and Dr. Marty Rozelle of The Participation Company. Details will soon be posted on our website.

Our meetings are held the fourth Tuesday of the month from 6:00 to 8:00 p.m. at Grimaldi's Pizzeria in Old Town Scottsdale. Please visit our website and click the button on the bottom left column to be added to the mailing list for announcements and events. You can become a member

by clicking the "JOIN US" tab on the bar under the photos, and reserve and pay for dinner meetings by clicking on the 'PAY' tab. We hope you join us at an upcoming event!



8 Journal of Environmental Management Arizona



THUNDERBIRD WWW.THUNDERBIRDCHMM.ORG

ne of my mentors used to say "You can plan your way into something, but then you have to work your way out of it." No one knows this better than Kirby Woods and others at Ninyo and Moore, who put in many hours of stressful volunteer work to offer a training opportunity for 48 ADEQ and Maricopa County folks at the Environmental Health and Safety Regulations and Compliance course offered in June.

It paid off-glowing evaluations are still being received. The Chapter was fortunate this year to have the support of several public and privatesector guest instructors. I know many of these folks and they are masters of their disciplines.

There are plenty of advanced courses around in different areas of the profession-Clean Air Act, RCRA, Clean Water Act, etc. But it is tough to find one with the strength and breadth of this multidiscipline course, which featured instruction in 21 key fields. And we're proud to have given it away. Thanks from the Thunderbird Chapter to Kirby and friends at Ninyo

and Moore and to the volunteer instructors that grew this training from a great plan to an even better reality.



www.SAEMS.org

ne of our goals this year is to increase

awareness of and participation in SAEMS

among staff and students in the appropriate

University of Arizona departments, including focus

on mentoring, internships, and job opportunities.

The following "success story" illustrates the

contacted SAEMS member B.J. Cordova expressing

her interest in an internship in the environmental

field. Her resume reveals exceptional motivation

and organization in promoting the potentials of

solar energy and sustainability to fellow students

and to the U of A administration. SAEMS VP

Heather Shoemaker brought the resume to the

attention of former SAEMS president Sarah

Sillman, Manager of Environmental, Health and

June, bringing fresh energy and ideas to Global Solar

and enabling her to sharpen her focus on her career

goals. In her senior year, Ms. Weingartner intends to

establish a dialogue between SAEMS and Ecoalition,

composed of the heads of student groups involved

Ken Asch

President

Ms. Weingartner began her internship mid

Safety at Global Solar Energy in Tucson.

in sustainability on

the U of A campus.

Clearly, this is a

'win win win" for

Ms. Weingartner,

Global Solar, and

the SAEMS / U of A

connection.

Katherine Weingartner, a junior at the UA,

potential of the SAEMS / U of A connection.

ARIZONA CHAMBER of Commerce and Industry

The Arizona Chamber and Manufacturer's Council will hold its next environmental issues breakfast meeting on Wednesday September 14th at the Phoenix Sheraton Hotel at 52nd Street and Broadway in Tempe. Breakfast is served at 7:00 AM with speakers beginning at 7:30 AM. Breakfast meeting information can also be found on the Arizona Chamber's web page at www.azchamber.com.

Contact Katie Whitchurch at kwhitchurch @azchamber.com, (602) 248-9172 x.126 to have your name added to the invitation list.



VALLEY FORWARD SINCE 1969

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SPOTLIGHTING ENVIRONMENTAL

EXCELLENCE IN THE VALLEY Despite what's been a challenging economy for most Arizonans, environmental stewardship is alive and

well in the Valley. Valley Forward received more than 130 entries in its 31st Annual Environmental Excellence Awards competition, demonstrating the high priority sustainable design and development has in our growing metropolis. Projects encompass: buildings and structures, livable communities, site development and landscape, art in public places, environmental technologies, environmental education/communication and environmental stewardship (SRP Award).

The non-profit business-based environmental group will recognize 19 first-place Crescordia winners and 30 Awards of Merit at a gala on Sept. 17 at the Westin Kierland Resort in Scottsdale. Deemed Arizona's largest and oldest competition of its kind, the awards program sets standards for achieving balance between the built and natural environment in the region's physical, technical, social and aesthetic development.

Presented in partnership with SRP for the tenth consecutive year, the Environmental Excellence Awards showcase sustainability initiatives from public, private, educational and non-profit entities in and around Maricopa County. The awards have

become powerful vehicles in advocating for the preservation of natural resources air, water, open space and our unique desert environment.



Diane Brossart President





t our July luncheon, Barton Day of Polsinelli **1** Shughart PC presented an update of ADEQ's rulemaking on solid and hazardous waste fees. With the legislative decision to remove funding of ADEQ's



WWW.AZHYDROSOC.ORG

activities from the general fund, they are looking to sustain the programs through raising of fees for hazardous waste and solid waste facilities. We can expect fees to increase many times from current levels.

In accordance with our tradition, EPAZ did not have a luncheon meeting in August. Our next meeting is September 8, with Mark Hubble of the Central Arizona Project scheduled to present the topic of impacts on Arizona water quality from forest fires.

EPAZ will be holding elections for the officers in September. The positions of president, vice-president, secretary and treasurer are now open for nominations. Interested EPAZ members can contact any of the current board members for information or to volunteer. Contact information is available on our website at www.epaz.org.

EPAZ normally holds monthly luncheon meetings on the 2nd Thursday of

the month from 11:30 am to 1:00 pm at the SRP PERA Club. For details and reservations, please go to our website. EPAZ also gathers on the last Wednesday of the month for a casual cocktail mixer at various locations throughout the valley. Visit our website to find the location of our next mixer or contact Mannie Carpenter at (480) 829-0457 for more information.





WWW FIA-AZ ORG

The two remaining Asbestos Awareness Seminars to be held in Arizona are L scheduled in Florence October 14th and Phoenix on November 4th. We encourage you to attend or to refer any property owner(s) you associate with attend. The Phoenix seminar is typically well attended and exceeds onehundred attendees. As always these seminars are free to attendees and include free breakfast and lunch. Plan to spend 8-hours being educated on the health

hazards associated with asbestos exposure and the regulations mandated by the EPA and OSHA. We are getting closer to finalizing our new website so keep an eve out for our new look.

Please visit our web site at http://www.eiaaz.org or call 602-437-3737 ext. 123 for info. on all upcoming events sponsored by EIA-AZ Vicky Aviles and for membership and sponsor opportunities. Past President



ARIZONA ENVIRONMENTAL STRATEGIC ALLIANCE

WWW.AZALLIANCE.ORG

ummer is a slow period for the Alliance, but members have already started Oplanning for two luncheons to be hosted this fall. The first will be a legislative forum, and the other will be a follow-up to our January air quality luncheon. Details will be posted here and on our website as they become available! Advisory Council news-at the June Alliance meeting Dr. Nick Hild,

recently retired from Arizona State University, was elected to the Alliance Advisory Council. With his extensive background in industry and environmental management education and long years of service to Arizona's environmental community, Dr. Hild will be a great contributor to our organization. Welcome Dr. Hild!



For information on the Alliance see our Dan Casiraro website or call 480-422-7392.

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August 31 - September 1	:	Las Vegas, NV	
September 7	:	Safford, AZ	
September 8-9	:	Tucson, AZ	
September 14	:	Cottonwood, AZ	
September 15	:	Holbrook, AZ	
September 21	:	Gallup, AZ	
September 22	:	Flagstaff, AZ	
September 27-28	:	Kingman, AZ	
September 29-30	:	Yuma, AZ	
October 5-6	:	Glendale, AZ	
October 8	:	Mesa, AZ (ASU Polytechnic)	
October 19-20	:	Mesa, AZ (ASU Polytechnic)	

On-site classes for groups of more than 20 may be scheduled by contacting us with your group's needs.

Your Air Quality Permit may require opacity readings by a person certified in the proper use of EPA Method 9. Opacity training is recommended for air quality environmental consultants and environment compliance personnel at construction sites and at any source of visible emissions.

Maricopa County area classes include a review of all Maricopa County Air Quality Department opacity standards by Al Brown, Certified Trainer for Comprehensive and Basic **Dust Control Training.**



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ARIZONA





Larry Olson, PhD.

IT'S ALL ABOUT CHEMISTRY

Do You Know What's In Your Swimming Pool?

The Safe Drinking Water Act requires the EPA to set Maximum Contaminant Levels (MCLs) for public drinking water sources. In addition to microorganisms, inorganic and organic chemicals the current regulations include a number of disinfection by-products (DBPs). These are compounds that are formed with disinfectants such as chlorine, chlorine dioxide, chloramine or bromine react with organic molecules in the water to form various halogenated species. Currently, the regulated DBPs include total trihalomethanes (THMs) and haloacetic acids. Total THMs are measured by the sum of four specific compounds: chloroform, bromoform, dibromochloromethane, and bromodichloromethane. Haloacetic acids are measured by the sum of five specific compounds: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, bromoacetic acid, and dibromoacetic acid. There are many other potential DBPs, but these are the regulated ones.

In drinking water the disinfection by-product stems primarily from naturally occurring organic matter (NOM) derived from decaying vegetation or microbial residues. The use of oxidizing chemicals as disinfectants has undoubtedly saved millions of lives around the world by eliminating microorganisms that transmit water borne diseases. But DBPs are an unwanted by-product of the process. In swimming pools the organic load can also originate from swimmers (e.g. urine, sweat, cosmetics, skin cells and hair) as well as NOM. There is nitrogen content in organic matter from swimmers is higher than in NOM. This can lead to other DBPs such as nitrosamines and chloramines. by-products in swimming pools and there had been no complete characterization of DBPs in an indoor pool. A study in Environmental Health Perspectives (2010), Vol 118, p. 1523 looked at public indoor swimming pools in Spain that used either chlorine or bromine as a disinfectant and identified over 100 DBPs in the pool water. THMs are some of the most common DBPs in pool water. In this study the average concentration of THMs ranged from 16 to 132 µg/L. This compares to the MCL for THMs of 80 µg/L. Other disinfection by-products identified included haloacids, halomethanes, haloacetonitriles, haloaldehydes, haloketones, haloalcohols and halophenols. There were more nitrogen containing compounds such as haloamides, halonitriles, haloanilines, and halonitro compounds than found in drinking water. This appears to be consistent with continuous oxidation of small amounts of nitrogen containing compounds coming from human residues. Maybe surprisingly, the free chlorine content in the pool water was not significantly different than in drinking water.

Many more compounds were found in this study of indoor pools than had been previously indentified in outdoor pools. This is partly because outdoor pools are subject to volatilization and photolysis. For example, trichloroamine was not found in the pool water, but was found in the air in the enclosed pool indicating complete volatilization. So one conclusion is that swimming in an indoor pool can expose you to significantly more DBPs than in an outdoor pool.

Both drinking water and pool water contain DBPs, but the actual absorbed dose may be much larger from swimming because the routes of exposure include total body contact (absorption through the skin) and inhalation, as well as ingestion. A companion study to that quoted above also measured respiratory changes after swimming in the enclosed pool for 40 minutes. They measured airway inflammation, oxidative stress and epithelial lung permeability. Four THMs (chloroform, bromodichloromethane, dibromochloromethane, and bromoform were measured in exhaled breath before swimming and within 5 minutes after swimming. The THMs in exhaled breath increased by 7 fold. There was a slight, but significant, increase in lung epithelial permeability after swimming but no change in lung function, oxidative stress, or inflammation.

Other studies have looked at health effects on competitive swimmers and pool workers and found increased rates of asthma and other health effects compared with the general public. This is an evolving area of research, but one conclusion is to maintain proper chlorination levels in your pool and minimize the organic load as much as possible.

Until recently, there had been only a few studies of disinfection

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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

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SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

Nicholas R. Hild, PhD.

REVISITING THE FUEL TAX ISSUE

Remember back in the spring of 2009 when we saw gasoline prices drop to \$2 a gallon, a column appeared here about how the (then) new ADOT director had indicated that gasoline taxes had not been changed since 1991? And, further, that the legislature had said that a penny of tax only generated \$35 Million in revenue so it really wasn't worth discussing. They evidently thought the idea of a gas "tax" would be so politically unpopular that it would not be worth debating.

So, here it is two-plus years later and that \$2 a gallon has escalated up to \$3.99 a gallon, depending upon where you fill up and what octane (or diesel) you need. Reflecting on that 2+ years of escalating prices, it is difficult to remember any time when prices during that run-up actually dropped more than a dime or so before they continued rising—In fact, mostly those prices were escalating at a much faster rate than they ever dropped—something that seems more than an ironic coincidence—but that is a subject for another day.

Given the prices we have been paying at the pump over the past year (\$3.60 and up), it is most likely that you have a hazy recollection of when you only paid \$2 for a gallon of gas, back in 2009! But trust me, for a short time back then, \$2 gas gave the false impression that the economy was recovering nicely and everyone went back to their old driving habits, at least for a short time. And, then the legislature gave us a wake-up call that still has us reeling.

In the 2+ years since the halcyon days of \$2 gas, there were literally times when prices at the pump went up 2, 3, 5 or even 10 cents over a week's time. And the energy companies all had their "*reasons*" for why: no refinery capacity, hurricane aftermath restrictions, oil wells that were out of commission; etc., etc., but whatever the excuses, those energy companies always seemed to end their fiscal year with obscene profits that resulted from ever-escalating prices we paid at the pump.

What all this shows is that the consumer (in 2009) was likely to cut back on driving pretty much whenever the pain at the pump exceeded about \$3 a gallon. At least, that seemed to be the breaking point back in 2009. Above that threshold, mileage conservation (i.e. reduced driving) kicked in—below that, the driving public forgot about the effects of burning fuels on the environment and went back to old habits. It shows that folks are sensitive to their personal environmental footprint actions only to the extent that it doesn't affect their pocket book!

But, with today's prices above \$3.50 a gallon, it is not clear that there's much effort to conserve or reduce mileage because according to various automotive experts, we seem to be seeing the mileage creeping back up to pre-2009 averages and that's a conundrum we need to highlight. What that signals is a warning that perhaps we have all gotten used to paying more for our fuel, and we are cutting our budgets elsewhere just to compensate for our driving habits. The driving public has pretty much decided that the new break point is something greater than that old \$3 a gallon and maybe the old \$3 is now the new \$3.60 or \$3.75. And, we need a wake-up call to get people to stop and think about what is happening

Looking back, it seems to beg the question asked in that 2009 column: if we had added an additional 20 cents tax back in 2009, at \$35 Million per penny of tax added, the state would have had \$700 Million to \$900 Million in the coffers now that they don't have to 'balance the budget' going forward. And, in addition, that tax would now be generating an additional \$350 Million more for this coming year that the legislature could count on for meeting the 2011 bogey—revenues that would make unnecessary the inevitable cuts to programs and jobs that will be on the chopping block for the 2012 legislative session.

Sure, you can say that if we had put that 20 cent tax on back in 2009, we would all be paying 20 cents more per gallon today but based on the statistics that are showing people are paying upwards of \$3.60 now and driving like they did when it was \$2 a gallon, it clearly wouldn't have been an issue. If that tax could have been added gradually, which is what needs to be done now, it could have been tied to the national average per-gallon <u>increase</u> across the country, week by week. That way, when prices climbed 5 to 7 or more cents in a short time, 3 or 4 pennies of tax could be added until the full 20 cents was being charged on every gallon of gas (or diesel) pumped in Arizona.

In the unlikely event that prices don't continue to rise, there could be a "time-sensitive" automatic booster built into the plan, of a few pennies tax added, so that it reaches the full 20 cents by the end of 2012. But, it is highly likely that gas at the pump will continue to rise and, if we don't revisit this issue now, the legislature will be acting on it's slash and burn budget cutting process all over again.

So the question now is this: why isn't anyone asking what is so sacrosanct about revisiting the gasoline tax? The Republican mantra of 'No New Taxes' shouldn't really be defensible when a gasoline "tax" basically is an added "fee" that affects everyone equally—everyone pays the same amount at the pump, rich or poor. And the State reaps the revenue to help balance the budget without cutting jobs and programs that everyone needs.

So, isn't it time to revisit the fuel tax issue? Arizona drivers need a wake-up call to be reminded once again to conserve and reevaluate their driving habits as they impact the environment. But, most of all, it is an opportunity to remind everyone that what we are doing today has a great impact on the future of our children's, children's, children.

Nicholas R. Hild, PhD., Professor and Associate Chair, Department of Applied Sciences and Mathematics, Environmental Technology Management program, 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.

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ASBESTOS: THE BIGGEST ENVIRONMENTAL MISCONCEPTION

by Vicky L. Aviles, AEP, CIAQM

The biggest environmental misconception may be placing you, your employees, your clients and families at risk for exposure to asbestos and vulnerable to regulatory non-compliance violations. The general belief that the use of asbestos fiber in building materials has been banned by the Environmental Protection Agency (EPA) is an untruth. In fact, you don't need to conduct extensive research to figure this one out. Just go to the EPA's website. Yet renovation, tenant improvements (TIs), and demolition work in buildings is conducted daily without regards to these exposure potentials. All building materials that are not glass, metal or wood <u>and</u> regardless of the year of construction are asbestos containing until sampled in accordance with the EPA's AHERA protocol to prove otherwise.

The State of Arizona asbestos program is handled through the Arizona Department of Environmental Quality and has jurisdiction in all counties with the exception of Maricopa, Pima and Pinal. These counties (Maricopa, Pima & Pinal) have delegated authority from the EPA to enforce the Asbestos NESHAP regulations and have additional requirements above and beyond the federal standards. <u>All</u> facilities with the exception of a single residence must be inspected by an EPA accredited inspector for asbestos prior to

disturbance and a NESHAP notification must be submitted if regulated activities are to occur. Building materials may be assumed to contain asbestos but a negative assumption for asbestos is not acceptable. The EPA and Occupational Safety and Health Administration (OSHA) enforce the asbestos regulations within the State of Arizona.

For more information visit the EPA website or contact the Environmental Information Association–Arizona Chapter at 602-437-3737 Extension 123.

Vicky L. Aviles, AEP, CIAQM, Principal with Western Technologies Inc. She can be reached at vicky.a@wt-us.com.



PROSPECTING

FOR ENVIRONMENTAL

THE STRATEGIC HIRE

A fter a short hiatus from my column, I'm able to "come up for air" and spend a few moments crafting prose from the field. For this edition, we look at the idea of the strategic hire and how it can, and should be, a formal piece of the business development process. Searching for new team members to improve your chances of success is nothing new and finding new employees to "backfill" vacancies is easy. But few organizations make hiring a permanent part of their sales and marketing effort and have the vision to dedicate time to mine talent in pursuit of strategic goals.

The environmental industry is what I call "fenced in". There is little (if any) expansion and new business, for the most part, comes from growing market share by increasing the size of your slice of the pie. Simply said, taking business from competitors. What better way to win business away from competitors? Pluck good people from the marketplace with good relationships who can help your strategic cause. It's tricky and care should be taken to be certain (as certain as one can be, that its) that a hire results in the desired outcome. The risk lies in the expectation of what the new hire can bring and at what cost.

In my experience, the reality of the business volume someone brings with them usually differs from what is promoted during the interview process. This is not to say that people overstate their following or over-promote their relationships. It is simply that the many "moving parts" associated with migrating business from one supplier to another is wrought with unexpected occurrences that can derail well intended plans. When discussing revenue potential, I take about 1/3 of what someone promotes as ONE of the considerations when making a decision. My skepticism has been trumped from time to time by certain over-achievers, but I'd rather be pleasantly surprised rather than disappointed. Timing is another important consideration. How long is your firm willing to wait to see the expected outcome? The answer to that will be different for each company and each circumstance.

Finally, does the hire fit into a *pre-determined* strategic plan for the company? It's dangerous to consider candidates that "come out of the blue" with offerings of new business lines that sound like a good idea. If a plan is in place for where you want to go, when the right people emerge you will be better prepared to examine how they can help. Instead of, "what the heck" let's give it a try.

Here are a few items to help build hiring into your sales and marketing culture:

- Make the discussion of strategic personnel a permanent agenda item for sales and marketing meetings. Keep sales and marketing staff on the lookout for good people that have the skills and network to help you reach your goals.
- Take a new approach to networking events. Don't attend them solely to win clients, attend them to win people too.
- Encourage all staff to stay in touch with as many people as possible, not just clients or prospective clients. Staying close with past work-mates, vendors, regulators, friends and family all feed the pipeline of potential hires down the road.
- Consider using professional recruiters. Although they can be costly, their networks expand beyond your backyard and may reach people you can't.
- Be willing to invest. That might be hard to swallow right now, but many experts are saying that now is the best time ever to invest ... and I think it applies to people too.

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

Joe C. Holmes

News Briefs

CRAIG MCCURRY JOINS NINYO & MOORE

 Ninyo and Moore recently announced that Craig McCurry, P.E., has joined the Phoenix office as a Senior Environmental Engineer.

Craig is a licensed Environmental Engineer and brings 18 years of environmental industry experience including environmental compliance and permitting for air quality and other environmental media, Environmental Health & Safety (EHS) management systems, environmental data management, and pollution prevention. He received his BS in Aeronautical and Astronautical Engineering from Purdue, an MS in Environmental Engineering from ASU and an MBA from ASU.

Craig was formerly employed for 11 years as Environmental Compliance Team Leader for the Boeing Company in Mesa, Arizona. Recently, Craig worked in Southern California for Kinder Morgan in the Los Angeles area and for Jacobs Engineering at Edwards AFB. Craig's experience in environmental regulatory compliance, permitting and air quality services expands Ninyo and Moore's capabilities in these areas.

Readers can contact Craig McCurry at 602-243-1600 or by email at cmcurry@ninyoandmoore.com.

LAYNE WATER TECHNOLOGIES GROUP OPENS PHOENIX CENTER OF EXCELLENCE

Layne Christensen's Water Technologies Group recently announced the opening of its Center of Excellence Water Treatment Facility in Phoenix, AZ.

Layne, well known to many as the company responsible for the

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San Jose mine rescue in Chile, has a 130-year commitment to the water industry. Layne's investment in the Phoenix Facility adds 40 highly-skilled positions to the Valley of the Sun. Recognizing the growing population and the unique water chemistry challenges of the desert southwest, the facility is strategically positioned to provide sustainable and economical water treatment solutions for both industrial and municipal applications.

The 60,000 square foot facility is the headquarters of the Water Technologies Group, staffed with designers, engineers, chemists, PLC programmers, water treatment specialists and service technicians. This location is capable of arsenic media regeneration, Deionization (DI) regeneration, membrane cleaning, equipment fabrication and pilot testing.

The Center holds NSF61 certification for the regeneration of its proprietary LayneRT arsenic removal media, and has its first large-scale regeneration scheduled for September. In addition to LayneRT regeneration the DI regeneration capacity is the largest in Arizona and will serve the company's DI exchange tank program.

The facility serves both specific regional needs as well as clients nationwide through a network of over fifty offices from coast to coast delivering comprehensive services for water supply, treatment and transmission.

Layne maintains a website at www.laynewater.com. For more information about the Layne Center of Excellence contact Lisa Culbert, National Marketing Manager at lculbert@laynewater.com.

SWCA ENVIRONMENTAL CONSULTANTS ANNOUNCES KEY STAFF APPOINTMENTS

SWCA Environmental Consultants recently announced three key new staff appointments. Bill Jamieson, Senior Consultant in the Southwest Region; Bradley Solm, Air Quality Specialist and Environmental Planner in the Phoenix office; and Pamela Cecere, Senior

Planner for the Southwest Region.

Bill Jamieson brings to SWCA expertise in air quality permitting, conventional power generation, renewable energy, environmental compliance programs, greenhouse gas, continuous emission monitoring systems, emission inventories, reference method source testing, climate change, and cap and trade programs. Based in Phoenix, he will also be responsible for business development efforts in the power generation and renewable energy sectors

throughout the country.

"We are very excited to have Bill joining our team," said Ken Houser, Principal for SWCA's Southwest operations. "SWCA has worked closely with Bill over the past few years as a subcontractor, and we are pleased that now we can offer his air quality expertise to our clients directly."



Bill Jamieson

Jamieson holds a Bachelor of Science degree in zoology from Weber State University in Ogden, Utah, and is a member of the Air and Waste Management Association, the American Wind Energy Association, and the American Solar Energy Society.

Bradley Sohm will be responsible for managing air quality, environmental planning and other compliance-

related projects, providing technical content for documents, and assisting with development of new client relationships.

"Brad brings to SWCA more than eight years of practical air quality consulting experience," said Ken Houser, "including various aspects of air quality permitting and environmental compliance at electric utilities, ethanol



Brad Sohm

plants, and a wide range of manufacturing facilities. His air quality expertise will enhance our planning practice and broaden our service capabilities across the company." Brad holds a Bachelor of Science degree in chemical engineering from the University of Arizona, and is recognized by the Arizona Board of Technical Registration as an Engineer-in-Training.

Pamela Cecere will conduct environmental planning for large-scale National Environmental Policy Act (NEPA) projects with a focus on visual resources, public involvement, transportation, renewable energy, and transmission line siting projects.

"Pam has extensive technical experience in producing NEPA resource reports for visual resources, social and economic conditions, land use, water resources, public involvement, and government outreach," said Ken Houser, "we are



Pamela Cecere

excited to add Pam's strengths to our team of planning professionals."

Cecere holds a Bachelor of Arts degree in political science and environmental studies from Niagara University and a Master of Science degree in environmental and community planning from Syracuse University. She also serves as a planning commissioner for the City of Phoenix, providing the mayor and City Council with recommendations for sustainable and responsible planning, zoning, and economic development strategies for the North Valley.

To contact Bill Jamieson, Bradley Sohm, or Pamela Cecere call SWCA at 602-274-3831. For more information, SWCA maintains a website at www.swca.com.

BOSTWICK LABORATORIES INC. TO PAY \$129,900 CIVIL PENALTY TO RESOLVE HAZARDOUS WASTE VIOLATIONS

The Arizona Department of Environmental Quality and Arizona Attorney General's Office announced recently that Bostwick Laboratories Inc. of Tempe has agreed to pay a \$129,900 civil penalty under a consent judgment for hazardous waste violations.

The company, located at 1700 Desert Dr. in Tempe, provides laboratory services specializing in the monitoring and diagnosis of cancer.

During an inspection of the facility in February 2010 by ADEQ's hazardous waste inspection and compliance unit, it was found that the company did not put decontamination equipment in one storage area and also had not made local police and fire authorities and area hospitals familiar with its emergency procedures.

The company also had incomplete inspection logs, did not have contingency emergency plans or an emergency coordinator, lacked training records for hazardous waste storage personnel, did not mark "Hazardous Waste" on five-gallon containers and shipped hazardous waste without obtaining the required ID number from the U.S. Environmental Protection Agency.

In addition, a records review determined that Bostwick Laboratories did not register with ADEQ, pay annual registration or hazardous waste generation fees or submit annual reports since beginning operations in 2006.

"This lack of management of hazardous waste put employees and the community at risk. Agreeing to pay this sizeable penalty is an acknowledgement of the severity of the situation," ADEQ Director Henry Darwin said.

"Any company handling hazardous waste needs to rigorously comply with state standards to protect the health of our citizens and our environment," Attorney General Tom Horne said.

The consent judgment is subject to court approval.

FREEPORT-MCMORAN MORENCI INC. AGREES TO \$150,000 SETTLEMENT TO RESOLVE WATER QUALITY VIOLATIONS

ADEQ and the Arizona Attorney General's Office announced recently that Freeport-McMoRan Morenci Inc. has agreed to a \$150,000 settlement for releasing 168,000 gallons of sulfuric acid

and heavy metals from a pipeline into Lower Chase Creek, a tributary of the San Francisco River.

Freeport-McMoRan will pay a \$75,000 penalty and complete a supplemental environmental project valued at \$75,000 as part of a consent judgment in Maricopa County Superior Court for water quality violations caused by the Oct. 30, 2008, spill from its Morenci copper mine in Greenlee County.

The supplemental environmental project agreed to by Freeport McMoRan includes conducting one or more household hazardous waste collection events for residents within Graham or Greenlee counties at dates and locations to be announced.

Freeport McMoRan's Morenci facility discharged the highly corrosive acidic solution directly into Lower Chase Creek from a stormwater pipe. The material traveled downstream for a distance of more than two miles, passing through areas of the creek publicly accessible from both Morenci and Clifton. The discharge occurred after one of Freeport McMoRan's contractors incorrectly connected an electrolyte solution pipeline into a pipeline dedicated to transporting stormwater through the mine.

The pollutants in the discharge exceeded Arizona surface water quality standards for copper, zinc and pH in Lower Chase Creek. The company's Aquifer Protection Permit and Arizona Pollutant Discharge Elimination System Permit do not authorize the release of these substances into the environment.

After becoming aware of the spill, Freeport McMoRan acted to mitigate environmental impacts by constructing a series of four temporary earthen check dams, which stopped the discharge only 120 feet upstream from the confluence of the San Francisco River, which was flowing at the time. In the hours and days following the spill, Freeport McMoRan also minimized the potential impact to the aquifer by recovering 93,000 gallons of discharged liquids and removing 85,000 tons of contaminated sediment from the creek bed.

"The spill jeopardized the safety of the public who use Lower Chase Creek and impacted its delicate environment. Fortunately, no injuries were reported and Freeport McMoRan acted appropriately to minimize risk to the public and the environment through its quick remediation activities," ADEQ Director Henry Darwin said.

Darwin also said he was pleased that Freeport McMoRan would be conducting household hazardous waste collection events in the area as part of the settlement.

"The company has taken its environmental obligations at its Morenci Mine seriously, including the protection of human health and the environment in Arizona, by offering local residents upcoming events in Graham and Greenlee counties to safely dispose of electronic waste, refrigerators, waste tires and household hazardous waste," Darwin said.

"I am appreciative of Freeport McMoRan's quick response in cleaning up this spill," Attorney General Tom Horne said. "Mining companies need to rigorously comply with state standards to protect the health of our citizens and our environment."

The consent judgment is subject to court approval.





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