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ARIZONA

**WHAT'S NEW IN
WASTE REGULATION?**

*MICHAEL C. FORD,
REGULATORY DEVELOPMENTS: pg 13*

**HOW TO RESPOND TO AN
ENVIRONMENTAL
ENFORCEMENT ACTION**

MITCH KLEIN, BRYAN CAVE LLP pg 9

**US EPA AND ADEQ
SIGN MOA ON
PERFORMANCE
TRACK** *pg 16*

Feb / Mar 2009 Vol 7 No. 1

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From the Editor



The challenging economic period we are experiencing reaches into Arizona's environmental management sector as well as throughout the rest of the country. Most, if not all of you have had to evaluate your budgets and expenditures, just as the Journal has looked for savings opportunities. So, although some cost cutting may be essential, please remember we need to

continue to support each other—we are in this together! Meanwhile, as the Journal quietly enters our 7th year of publication, I extend my appreciation as always to our contributors, columnists, authors, readers, and especially during this period, to our loyal advertisers!

About a year ago, after finding my morning newspaper at the foot of the driveway, sometimes in that small gutter next to the road, for about the 7th time in two weeks, I switched my subscription from the Arizona Republic to the East Valley Tribune. Although I prefer reading the Republic, the Tribune delivery person managed to place the newspaper at the foot of my front door nearly every day for most of the last year—and that made me happy.

Unfortunately, as those of you living in the East Valley may know, the Tribune dropped its paid circulation recently and is now a free paper delivered only to certain locations in east valley cities. So, I can no longer receive it.

Missing my morning paper, I picked up a copy of the Republic a couple times recently at the grocery store. To my very pleasant surprise, I found a big eight page Fry's Electronics ad insert. I like reading the sales on computer and electronic products, but I had not seen a Fry's ad in a very long time . . . hmmm, about a year. I kind of forgot all about them.

Sincerely,

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

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Journal of Environmental Management Arizona
EDITORIAL Publisher & Editor: James Thrush, M.S. Env. Management. Email: 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 © 2009 by the Journal of Environmental Management Arizona. All rights reserved.

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February / March 2009

Volume 7 Number 1

Contents

FEATURES AND ARTICLES

- 6 HOW TO RESPOND TO AN ENVIRONMENTAL ENFORCEMENT ACTION**
MITCH KLEIN, BRYAN CAVE LLP
- 16 MOA ON PERFORMANCE TRACK SIGNED**
ARIZONA ENVIRONMENTAL LEADERS HONORED



Performance Track MOA Signed
Page 16

COLUMNS

- 12 SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT**
MR. PRESIDENT: IT'S TIME TO "CHANGE" TO CELLULOSICS BASED ETHANOL
NICHOLAS R. HILD, PHD.
- 18 IT'S ALL ABOUT CHEMISTRY**
PERCHLORATE - AN EMERGING CONTAMINATE
LARRY OLSON, PHD.
- 13 REGULATORY DEVELOPMENTS**
WHAT'S NEW IN WASTE REGULATION?
MICHAEL C. FORD, ATTORNEY



Perchlorate - an Emerging Contaminate
Page 18

DEPARTMENTS

- 4 FROM THE EDITOR**
- 14 NEWS BRIEFS**
- 14 ADVERTISERS INDEX**
- 10 ASSOCIATIONS PAGES**



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How to Respond to an Environmental Enforcement Action

The right way and the wrong way to respond to environmental enforcement actions.

by Mitch Klein, Bryan Cave LLP

Introduction

This article is a perspective on the best ways to approach and resolve environmental enforcement actions by keeping the pain to a minimum. It follows the typical chain of events.

Inspections

Most enforcement actions result from inspections. If you handle the inspection properly, even if violations are found, you may escape from or at least minimize an ensuing enforcement action. As somebody once said, you can only make one first impression. For crying out loud, be nice. Even if you disagree with what the regulator is saying, be polite and respectful. Inspectors tend to be humans, and it is naïve to think that how you act will not affect the inspector's report – and more importantly – the recommendations. Do not roll your eyes or otherwise let them know how ignorant or stupid you think they are. If need be, bite right through your tongue.

If you are not cooperative, it is a huge red flag. You can expect a more careful review and future inspections. It is however, perfectly OK to insist that the inspector wait for the environmental manager or attorney to arrive. If those people cannot be there at all, politely ask for rescheduling. If the inspector refuses, make it clear that without the needed people, inspection will not be as worthwhile.

If they insist on going forward without the right people present, refusing access will guarantee a very biased eye when they come back. Instead, if the right people are not present, do not answer anything other than basic questions and keep telling them that they should be talking to the right people. It is better to be ignorant than wrong.

While you should be cooperative and honest, do not admit to any violation unless it is obvious – you might be wrong, and there is nothing to be gained by admitting anything. On the other hand, do not argue about whether something is a violation. If they insist it is, politely tell them you think they are incorrect and why, then just move on.

If the inspector wants something changed and it is easily accomplished, even if you do not agree that it is needed, why not do it? If it is no big deal, make the inspector happy and feel they have been useful. This will pay off if you do have a dispute later, as they may be more willing to back down from one position if they have “won” another.

Notice of Violations

I. When you think you might get one

Many agencies, including the EPA, use these as defacto performance measures, so they like to send them, even if they have no real intention on following up. It is a bean to count. They also think it is not a big deal for the recipient – it is just a letter, which most agencies (Maricopa County is an exception) believe is not subject to administrative challenge or appeal. They do not realize it is a very big deal to someone whose job or career could be on the line, and that many companies take them very seriously and public companies have reporting obligations.

So try to convince them that an NOV (Notice of Violation) is not necessary BEFORE it goes out. Contact them after the inspection, especially if everything can be corrected quickly. If you can get everything corrected and tell them before a decision has been made on whether to send one, that could tip the scales. Once it goes out, good luck on getting it withdrawn. Once it goes out, it takes a life of its own.

If you have a disputable regulatory position that you think is likely to arise during your next inspection, consider raising it before the inspection. Do not wait for an NOV. Many companies do not want to face the argument until they have to, but if you bring it up yourself, it shows you are not hiding anything, and it can be dealt with at a time when there is no pressure on the government to make a quick decision. This gives you a much better chance of showing the government that you are correct, or at least reaching some accommodation.

II. If you get one

Do not ignore it! Even though most agencies claim it is only a letter, and thus carries no requirement of a response, ignoring it tells them that you do not care about being in compliance. Your file goes to the top of the pile. Dispute it, factually and legally. In your dispute, do not be nasty, condescending or hysterical; be polite, clear and thoughtful. This shows that you are aware of the situation and take it seriously, but that the government is simply incorrect factually and/or legally. This should not ruffle anyone's feathers, demonstrates that you are keenly aware of your regulatory obligations, and lets them know that if they are going to push it you are going to push back.

If there is a factual or legal disagreement, see if there is a means of resolving the situation without anybody having to admit they were wrong. Nobody likes to admit they were wrong. See if resolution without agreement is possible. What is the underlying concern, aside from the legal issues? Can that underlying concern be resolved? Can you change the way you operate without significant cost, even if you do not have to? If you can, grit your teeth and tell them that even though you do not have to – you will anyway. Just because you are such a great company.

If change is too costly, see if you can provide them a graceful exit. Show how the potential problem or government concern will be taken care of so that they can say they have accomplished their

goal. If the only option you give them is to admit they were wrong, they will likely just dig in their heels and refuse.

III. Resolving Them

Many times, NOV's continue to hang out even when the problem has been resolved. The agency will likely reserve the right to seek a penalty, but leave the sword dangling. They can just keep sending monthly updates, or otherwise comply with their internal requirements, forever. Even if you think an understanding has been reached and the situation resolved, the lurking NOV is a problem for future audits or corporate transactions.

So seek genuine resolution. Ask for an NFA (No Further Action), or at least get something in writing that they consider the matter closed. Of course, if they tell you that the only way to close it is by the payment of a penalty, you may just want to allow that sword to keep on dangling.

Orders - On Consent

In an enforcement case, except for those programs with administrative penalty authority, a Consent Order does not really resolve anything, it just requires the company to do work on an enforceable schedule. The government can still sue you. A Consent Order is merely a delay action to keep the government happy until a true resolution can be reached. Therefore, there is seldom a reason to agree to a Consent Order unless you fear a Unilateral Order that will contain more expensive requirements that will likely be upheld upon challenge, and the government agrees to move toward true resolution. Instead, consider seeking a final resolution or a closure letter that actually resolves the matter in exchange for doing the work or implementing the changes sought by the government.

If you cannot get a resolution because of other outstanding issues, make sure you at least get acknowledgement and credit for entering the Consent Order, so you can use that chit when the time comes to resolve the enforcement case.

As a side note – in a non-enforcement case, it used to make sense to get the government to order you to do work if you were going to seek to recover the money you were spending from others. Now, because of changes to CERCLA case law it is not only unnecessary, it is a bad idea.

In negotiating a Consent Order, many agencies act like their boilerplate was etched in stone on Mount Sinai. While the need for consistency is understandable, cooperation should entitle you to some consideration. If they will not give you anything in return for cooperation, you may as well wait for a Unilateral Order and challenge it. Among the typical issues to kick back on: 1) The dispute resolution process. This is usually a one-sided joke. 2) Stiff stipulated penalties and liquidated damages. These may not be needed, and certainly not for every little thing. 3) Frequently, an agency actually seeks more than they could lawfully obtain in a Unilateral Order! They better have something darn good to trade for that. Like, say, complete resolution!

Orders - Unilateral

For God's sake do not ignore it. When the agency goes to Court to enforce it, the Judge will take a very dim view of that. Instead, challenge the authority, timing, scope and necessity at the administrative level. If you lose there, you can appeal and still convince a

Court that it is wrong, and you will have maintained credibility. Furthermore, even if the initial situation was so contentious that the agency felt compelled to issue a Unilateral Order, you can still try to convert it into an acceptable Consent Order by using the leverage of your administrative challenges.

Penalties

Unlike certain agencies that shall remain nameless, ADEQ and the EPA actually care if you have been active and aggressive in fixing the problem and making sure it does not happen again, and amenable to the argument that you should be rewarded with a reduction in penalties for such good behavior. Spell out clearly what you have done and why you deserve to be rewarded. You may wish to mention that the government should provide incentive to people who act quickly and effectively to remedy their problems.

Because governments like to brag about the size of their penalties, consider trying to negotiate a big penalty, but with the money not being paid so long as you comply with an agreed upon course of action. The government gets to brag, and you keep your money. Everybody is happy.

Most importantly, in resolving the case, make sure you are resolving all of your problems. Why settle some violations if another enforcement action is potentially lurking? It may cost a bit more, but should be worth it.

At some point of course, you need to consider whether the case should be resolved at all. You must consider the hidden costs of settling a case where you are being unjustly accused or the

Continued on page 9

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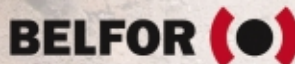
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KLEIN: Enforcement Actions

Continued From Pg 7

government is seeking unjustifiable penalties. Yes, attorneys cost money. But there are significant costs associated with a giant red mark on your record that will be used against you in the future, and by setting bad precedent.

First, even when the agreement states that you deny the allegations, if you are paying money, who do you think you are kidding? The government surely believes this is an admission. Second, just like the schoolyard bully, if you pay them the first time they will keep coming back. And they will want more and more money. Even though you might get a bloody nose, at some point you need to decide to stand your ground and fight. Let them find someone else to pick on.

Some companies like the idea that their money goes toward something useful, others do not care. If your company does not care, and the government really wants a SEP (Supplemental Environmental Project), then get something for it in return. If you do want a SEP, be the proactive party. Think of something good and useful, do not agree to whatever pet project the agency may be pushing (unless of course, they have something to offer in return).

Judicial or Administrative Orders requiring work

If you started doing the work and correcting the problem right away, and you have been cooperative, honest, and exhibited some rudimentary social skills, you may have built enough goodwill to avoid being ordered to do the work. The problem with Orders requiring work is the stiff stipulated penalties and unalterable schedules for minor setbacks. If you can show the agency that an Order requiring work is not needed – you are chugging along in a timely manner – you can avoid that. If you have been uncooperative, dilatory, or refused to address the issue until being dragged by the nose, you have no chance to avoid an Order requiring work. And you don't deserve one.

Mitch Klein is an environmental attorney with Bryan Cave LLP. Mitch is a former environmental prosecutor for the Arizona Attorney General specializing in enforcement defense and environmental litigation. He can be reached at 602-364-7420 or by email at mitchell.klein@bryancave.com.

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- **HOLBROOK: March 25-26, 2009**
Navajo County Government Complex
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100 E. Carter Drive, Holbrook, Arizona 86025
- **MESA: March 31-April 1, 2009**
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- **GLENDALE: April 7-8, 2009**
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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

Happy New Year from SAEMS! Another year has passed and on behalf of the organization I would like to thank everyone for their participation in the 2008 SAEMS events. We had a very successful year with great luncheon meetings, excellent seminars, community cleanups and the awarding 4 scholarships -- 2 full-time and 2 part-time to environmental students of the University of Arizona.

We hope that everyone had a safe and happy holiday season and are ready for an exciting environmental year! We have great events scheduled for 2009 so stay tuned into our emails and website www.saems.org for more information.

Some of our upcoming events include:

February 25th Monthly Luncheon, B.J. Cordova the Director of Programs for Tucson Clean and Beautiful will be speaking on recycling and reducing solid waste; **March 11th** Adopt-a-Highway community cleanup event; **March 25th** Monthly Luncheon, Placido Dos Santos the Border Programs Manager for ADEQ will be speaking on the Colorado River and its the Bi-National environmental issues.

Don't forget that the **SAEMS Annual Scholarship** applications are due by **March 15th**. Applications are located on our website: www.saems.org.

And mark your calendar for the **2009**

Annual RCRA

Seminar- May 7th in Tucson at the University Marriott! We look forward to seeing you at our 2009 events!



Shari Bauman
President

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Happy and Healthy New Year to you! A new year means a new opportunity for networking and professional growth. The local Arizona Chapter of SESHAs held our first Chapter Meeting of the new year on January 28th. We had good attendance at the meeting which was held at ASU's University Club. Presentations included "Environmental Auditing" by Mike Sherer, "Maximize Risk Management through Interactions with Outside Agencies" by Paul Finley, and "Investigation of an Arc Flash Incident" by Martin Fekete. Fabulous speaker and raffle prizes were provided by Dan O'Donnell with DoD Technologies.

10 Journal of Environmental Management Arizona

COMING UP NEXT: You don't want to miss SESHAs 31st Annual International High Technology ESH Symposium and Exposition. It will take place at the Hilton in Scottsdale, 6333 N. Scottsdale Road, on May 19th-22nd. The Symposium is entitled, "Where ESH and Technologies Converge". Session topics will include: Semiconductor Nanomaterials and ESH, ESH in Photovoltaic/Solar Industry, Emergency Response Roundtable, Sustainability and more. For details about attendance, presenting, and exhibiting, go to www.seshaonline.org or call me, Christine Pomerence at 480-897-3746.

Stay safe out there!

Christine
Pomerence
President



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The Grand Canyon Section started off the New Year with Gina Grey from Western States Petroleum Association as our speaker for the January meeting. Gina was able to give us some insight into the challenges and opportunities in meeting ambitious climate change goals in Arizona and other western states.

Roger Ferland with Quarles and Brady LLP will be the speaker for our February meeting. Once again AWMA-GCS will be teaming up with the Environmental and Natural Resources Law Section to co-host this evening meeting on February 26th. Please check our website for exact times and locations.

AWMA-GCS also welcomes a newly elected Board of Directors and Officers with the coming of the New Year. Congratulations and thank-you to all those who have volunteered their time and expertise. I would also like to thank those who have served on the Board and as Officers over the last year. Your participation and assistance have made the last year very successful and will allow the new Board to grow and improve the organization.

As always you can check out our website at www.awma-gcs.com for additional information and upcoming meeting topics.

Kale Walsh
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Thunderbird Chapter Scholarships- The Thunderbird Chapter is pleased to announce the winners of our 2009 scholarships:

- Dane Whitmer, Graduate student at UofA in the Environmental Engineering- \$2500.00
- Christopher Sexton, Undergraduate in Chemical Engineering with an Environmental Engineering emphasis at ASU- \$1500.00
- Camille Naaktgeboren, Graduate student at NAU in Biology- Environmental Microbiology- \$1000.00

The formal awards will take place at GRR on February 17, 2009.

The ACHMM/EPAZ monthly lunch meetings are held from 11:30-1:00 on the **second Thursday** of each month, at the Pera Club in Tempe, so check your emails for the meeting notice. Meeting details: www.thunderbirdchmm.org or www.epaz.org. AND, don't forget the **Thunderbird Happy Hour** on **1st Thursdays**, 5:30 PM - ??

Calendar Items:

- Feb 17-18, 2009 - Gatekeeper Regulatory Roundup at the Chaparral Suites
- Mar 5 - T-Bird Happy Hour, Sugar Daddy's, Scottsdale
- Mar 12 - Luncheon Meeting, TBD
- Apr 2 - T-Bird Happy Hour, Tilted Kilt, Tempe
- Apr 9 - Luncheon Meeting, TBD
- May 7 - T-Bird Happy Hour, The Keg, Tempe
- May 14 - Luncheon Meeting, TBD

Chuck
Paulausky
Board Member



www.azchamber.com

The Arizona Chamber of Commerce and Industry held its 2009 Arizona Legislative Forecast Luncheon on January 8th where business leaders and legislators gathered to discuss key issues of concern for the 2009 Legislative Session. During this meeting the Arizona Chamber released its 2009 Business Agenda outlining the organization's legislative priorities and goals for the year. The 2009 Business Agenda includes short and long term environmental goals for consideration by the Legislature and the regulatory agencies of government. A copy of the 2009 Business Agenda can be found at www.azchamber.com.

The Arizona Chamber's Environment Committee continues to host monthly breakfast meeting on the second Wednesday of each month

at the Sheraton Phoenix Airport Hotel where presenters from business and industry discuss regulatory environmental issues affecting business in Arizona. For more information go to www.azchamber.com or contact Jeff Homer at 480-441-6672.

Jeff Homer
Co Chairman
Environmental
Committee



www.azhydrosoc.org

The Phoenix Chapter held its "2009 Kickoff Dinner Meeting" at the Sonoran Brewhouse on Jan. 15. General plans for the Phoenix Chapter for 2009 were discussed at the meeting. On Jan. 27 the Arizona Hydrological Society and the University of Arizona, Cooperative Extension Service sponsored a presentation by Nick Melcher titled "Communicating Science to Policymakers". The combined session was held at Extension Service facility at 4341 E. Broadway in Phoenix.

The Tucson Chapter held its first chapter meeting for 2009 on Jan. 13 and Stan Leake, USGS, made the presentation, "Use of Models to Map Potential Capture of Surface Water by Ground-Water Withdrawals." The Tucson Chapter is planning a dinner meeting for March and Dr. Robert Webb, USGS, will be making a presentation on his new book, "The Ribbon of Green - Change in Riparian Vegetation in the Southwestern United States." The time and location to be announced and will be posted on the AHS website at www.azhydrosoc.org.

The Flagstaff Chapter held its 2009 organizing meeting at the Weatherford Mezzanine on Jan. 14.

The Arizona Hydrological Society 2009 Symposium is scheduled for Aug. 30 to Sept. 2, 2009 and will be held at the Westin Kierland Resort and Spa in Scottsdale, Arizona. The symposium theme will be "Managing Hydrologic Extremes." The call for abstracts was released on Jan. 24.

Nick Melcher
Executive
Director



www.eia-az.org

The New Year is off with great excitement! The EIA's kick-off Compliance Forum chaired by Robert Hutzler, CIH was held January 7th. The forum will continue to support the NESHAP outreach efforts for asbestos compliance and has commitment from

State OSHA and Maricopa County ADEQ to provide input. The program is designed to bring awareness to the general public, general contracting industry, building owners, management firms and industrial regarding conducting asbestos inspections of facilities regardless of age of construction prior to planned renovation/demolition activities.

Asbestos regulatory seminars jointly with EIA and ASU are scheduled February 18th and March 30th. 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 and for membership and sponsor opportunities. We encourage participation from members and non-members (environmentally concerned community) involvement with our outreach programs.

Vicky Aviles
President



American Society of Safety Engineers

The ASSE SA Chapter's January 13, 2009 Roundtable identified topics of interest for future meetings. A topic of great interest at the 1/13 meeting was traffic photo enforcement and citations. An ASSE member, who also instructs driver's education classes on Saturdays, thinks many people don't understand what the law describes as an intersection. This member also pointed out that traffic accidents have also significantly decreased since the program was established. This member will be the speaker at the April 14 monthly meeting.

The February ASSE meeting will be combined with the Southern Arizona Safety Council. An FBI agent has been invited to be the speaker at the March meeting. The group's annual meeting and awards banquet will be in May.

Shari Di Peso
Secretary



EPAZ

www.EPAZ.org

EPAZ has moved their regular monthly meeting to the Salt River Project's PERA Club in Scottsdale. In December, Mr. Barry Holbert of the Pima County Regional Wastewater Reclamation Department gave an overview of the effort required to simultaneously obtain ISO 9000, 14000 and 18000 certification for their wastewater management systems.

Those attending the meeting in January were informed of the newly revised EPA rules on recycling. Although not immediately applicable

to Arizona operations, these changes could eventually be adopted by ADEQ and could impact material recycling activities at mines and waste recycling facilities here as well.

The Gatekeeper Regulatory Roundup, co-sponsored by EPAZ, Arizona Emergency Response Commission and the Thunderbird Chapter of ACHMM takes the place of our February meeting. The 2-day conference at the Chapparal Suites in Scottsdale is based on this year's theme of "Evolving Issues in a Changing Political Climate." Visit our website at www.epaz.org for conference details as well as the schedule for upcoming meetings and mixers.

Our newly renovated website is now available for improved meeting and conference registration. EPAZ normally holds monthly luncheon meetings on the 2nd Thurs. of the month from 11:30 am to 1:00 pm. EPAZ also usually gathers on the last Wed. of the month for a casual cocktail mixer. For more details contact Mannie Carpenter at (602) 393-4800.

Mannie
Carpenter
President



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www.azalliance.org

We begin 2009 with a newly elected slate of officers: Chair: Len Drago, Intel; Vice Chair: Dan Casiraro, SRP; Treasurer: Matt Conway, Ping; and President: Jim Thrush, JEMA. As Chair, I would like to thank Scott Davis with APS, our past Chair, for his leadership and contributions in 2008, and I am looking forward to an exciting 2009. Our goals include increasing Alliance membership and continuing the mentoring and educational programs begun in 2008.

One of our first programs for 2009 is a workshop for companies and organizations in the process of implementing an Environmental Management System. This is an opportunity to learn from and share with others who are currently experiencing the same challenges and successes. More info. on the workshop will be forthcoming.

The Alliance welcomes Kitchell Corporation as our newest member. Kitchell passed a rigorous membership review process, demonstrating environmental leadership characteristics in a number of areas, and was enthusiastically voted into the Alliance by the Advisory Council.

In Dec. three Alliance members (Intel, Ping, and the City of Scottsdale) were recognized by ADEQ and The EPA for participation in AZ Performance Track (PT) at the PT Memorandum of Agreement signing ceremony (see pg. 16). After the ceremony, the Alliance hosted a luncheon for participants and guests.

The Alliance provides an excellent venue for members, regulators and key stakeholders to act on opportunities related to environmental excellence and leadership. Feel free to contact me or any of our members for information.

Len Drago
Chair





Sustainability and Sustainable Development

Nicholas R. Hild, PhD.

Mr. President: It is time to “change” to Cellulosics-based ethanol —

Our new President is already on record, saying that America’s heavy dependence on foreign oil is “...eclipsed only by the long-term threat of climate change” so here’s a recommendation for ‘*Change*’ that the whole world can benefit from—it’s time we began to seriously think about funding the (technology) research that will be needed to manufacture ethanol from cellulosics—a *change* that environmentalists, farmers, farm implement manufacturers and dealers, and refineries alike should embrace.

Unlike corn, which is the current government-edicted source for ethanol production, various varieties of cellulosics can be grown in almost every region of the US which, in turn, would mean it can be processed in cellulosics refineries to make ethanol where it is *geographically* most efficient to sell it in those same regional markets. That will have a positive impact on local/regional economies across the country, while resulting in reduced greenhouse gas emissions from diesel-burning tankers that won’t be transporting the ethanol to fueling stations thousands of miles away, as is now the case with corn-based ethanol being processed in only a couple of states in the midwest.

Cellulose is a polymeric linkage of glucose units. Glucose itself is a hexose containing six carbon atoms per ring. Hemicellulose, which doesn’t resemble cellulose (but the name implies it might be similar in structure) contains mostly five-carbon monomers, while lignin (which is a strengthening agent in plant material), is a complex structure that includes benzene rings (C₆H₆) and makes the refining process a little more difficult to breakdown than simple corn glucose. But, a little more research and concentrated efforts in the right places will overcome those hurdles—if we act soon.

Some energy companies aren’t waiting—AMD

Corporation is to ‘*Big Ag*’ what Exxon is to ‘*Big Oil*’ and recently AMD announced they had a “hybrid” biorefinery in the construction stage in Hugoton, Kansas that will produce both starch and cellulosic ethanol. It is to be, according to AMD, “...among the first of its kind in the US and likely to open by mid-2011...” They predict that within five to 10 years, cellulosic technology could become an industry standard “...with a potential to produce 50 to 80 billion gallons a year of ethanol...” But, there are design and production bugs to work out and we need research funding efforts ASAP that will allow us to meet these goals...so our best chance is to ask our new Administration to live up to promises made for real *Change*—**Mr. President: let’s make cellulosics ethanol a priority!**

Cellulosic crop and plant materials also offer enormous potential for further use (besides for making ethanol) in polymer production. So, besides producing ethanol, a flowchart of the process shows that a breakdown of cellulose glucose units into practical materials such as 1,3-propanediol lignin and distillers dried grain with solubles (DDGS) —byproducts that have value in a variety of polymers applications. It is also possible to capture the CO₂ produced in the fermentation process for commercial sale, which is a very desirable feature to add to the “*process*” given current concerns about greenhouse gas.

The Federal Energy Department’s Information Administration released a report recently that predicted that coal, oil, and natural gas (all of which produce gases linked to climate change) will *still* provide nearly 80 percent of the country’s energy in 2030, barring mandatory CO₂ emissions limits. In the same report, they estimate that nearly 60% of car sales are likely to be for vehicles that rely heavily on fuels *other than gasoline*—a major portion of which will be ethanol or hybrid-ethanol fueled. So, if we still are using greenhouse gas emitting power plant fuels, doesn’t it make sense to work hard on alternative transportation fuels to offset as much stationary source emissions as possible?

An Administrative ‘*Change*’ in strategy which prioritizes cellulosics-based ethanol research can help get us out of several dilemmas at one time: cellulose-based ethanol can significantly reduce the use of fossil fuels in transportation, it can be made from several varieties of cellulosics including by-products of many ag crops that are currently plowed into the ground, and many bio-mass crops (like straw grass) only need to be planted once and regenerate without additional energy input to yield several crops per year.

A cellulosics-to-ethanol strategy goes a long way toward helping solve a variety of problems. It would generate jobs in many states across the US and reduce our dependence on fossil-based fuels. Thus, it would be a win-win on several of the new Administration’s horizons for ‘*Change*.’ Most of all, Mr. President, a ‘*Change*’ to support cellulosics-based ethanol production will have *sustainable* benefits for *your* children’s, children’s, children (and the rest of the world too!)

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.



Michael C. Ford, Attorney

Regulatory Developments

What's new in waste regulation?

There is a lot going on in the world of waste regulation, so for a quick update, I checked in with my colleague, Barton Day...

Mike: So, Barton, what is going on in the regulatory world at the state and federal levels that generators of solid and hazardous waste should know about?

Barton: There certainly has been a lot going on. On the Federal level, EPA published an October 30, 2008 final rule revising the RCRA "definition of solid waste" rules that define when hazardous secondary materials being recycled are subject to regulation as hazardous waste. Since then it published a December 1, 2008 final rule amending the RCRA rules for waste generated at academic laboratories, a December 2, 2008 proposal to add certain pharmaceuticals to the Universal Waste rule, a December 19, 2008 final rule expanding the RCRA "comparable fuels" exclusion, and a January 2, 2009 Advanced Notice of Proposed Rulemaking concerning the "definition of solid waste" as it applies to non-hazardous waste. ADEQ also got into the act, releasing a proposed rule overhauling Arizona's solid waste regulations for publication in the February 6, 2009 edition of the Arizona Administrative Register. With the changes in Administration at the Federal and State levels, some of these rulemaking actions are likely to get another look; President Obama has already requested a review of rules pending at the time he took office, and it would not be surprising to see ADEQ's proposed rule pulled back by the Brewer Administration or held up by bills already under consideration in the State Legislature.

Mike: Which of these has the greatest implications in terms of broad applicability to Arizona waste generators?

Barton: Of all these rulemaking actions, I think the first – EPA's new RCRA Definition of Solid Waste Rule – may be of broadest interest to generators. While the rule itself is supposed to provide regulatory relief, it is important to recognize that it reflects extraordinary skepticism about the merits of recycling and presumes a need for surprisingly comprehensive and intrusive regulation of recycling activities. As a result, the new recycling exclusions provided by the rule are so narrow and heavily burdened that they are unlikely to provide very substantial regulatory relief for most generators of hazardous secondary materials. More importantly, the rule interprets the pre-existing recycling rules – particularly the application of EPA's "sham recycling" or "legitimacy" policy – in ways that could create significant new risks and compliance burdens for generators that recycle hazardous secondary materials under the traditional RCRA recycling exclusions. While there are serious questions about the legal basis and enforceability of EPA's approach, I think the rule presents some real problems and warrants careful attention by anyone involved in the recycling of hazardous secondary materials.

Mike: Thank you, Barton. I assume you will be covering these issues in more detail at the upcoming Gatekeeper Regulatory Roundup?

Barton: Absolutely - February 17 at 3:20 in the afternoon. I hope to see many Journal readers there.

A few quick notes on developments in water regulation. On January 12, 2009, the Supreme Court of the United States declined to review the *Carlota Copper Co. v. Friends of Pinto Creek* case, in which the 9th Circuit invalidated Carlota's NPDES permit. While this chapter of the long-running saga is now closed, the 9th Circuit's decision raises a number of new potential hurdles for facilities that may wish to obtain an AZDPES permit for discharges to impaired waters, which EPA, ADEQ and prospective permittees will now have to deal with. Also, on the same day, the Supreme Court heard arguments in another important Clean Water Act case out of the 9th Circuit, *Coeur Alaska, Inc. vs. South East Alaska Conservation Council*, which deals with the interplay between NPDES and § 404 permitting, and has enormous implications for the mining industry, among others. Finally, ADEQ is reportedly working on an Arizona version of the Federal MSGP for stormwater discharges. A stakeholder process should be getting underway soon. Facilities subject to MSGP requirements and interested in Arizona's permit should stay tuned.

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.

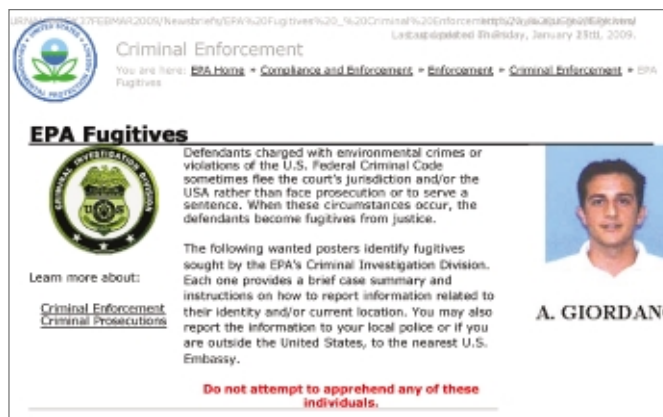
News Briefs

WANTED: EPA Launches Environmental Fugitives Website

❖ The EPA recently announced a new Web tool to enlist the public and other law enforcement agencies in tracking down fugitives accused of violating environmental laws and evading arrest.

"Putting this information on the EPA's Web site will increase the number of 'eyes' looking for environmental fugitives," said Granta Y. Nakayama, assistant administrator for EPA's Office of Enforcement and Compliance Assurance. "Two EPA fugitives were captured this year, and this Web site could help us find more fugitives in the future."

The Web site includes photos of the accused, summaries of their alleged environmental violations, and information on each fugitive's last known whereabouts. The alleged violations include smuggling of ozone-



Criminal Enforcement
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EPA Fugitives

Defendants charged with environmental crimes or violations of the U.S. Federal Criminal Code sometimes flee the court's jurisdiction and/or the USA rather than face prosecution or to serve a sentence. When these circumstances occur, the defendants become fugitives from justice.

The following wanted posters identify fugitives sought by the EPA's Criminal Investigation Division. Each one provides a brief case summary and instructions on how to report information related to their identity and/or current location. You may also report the information to your local police or if you are outside the United States, to the nearest U.S. Embassy.

A. GIORDANO

Do not attempt to apprehend any of these individuals.

Above: Snapshot of the new EPA webpage, www.EPA.gov/fugitives. "Criminal charges are only allegations of misconduct. Individuals who have been charged with environmental crimes are presumed innocent."

depleting substances, illegally disposing of hazardous waste, discharging pollutants into the air and water, laundering money and making criminally false statements.

One of the 23 current fugitives is Mauro Valenzuela, 39, a former mechanic for Sabertech. Among his several charges, Valenzuela is alleged to have illegally transported hazardous materials on a commercial aircraft. In 1996, Valenzuela allegedly transported waste oxygen generators onboard ValuJet flight 592 without proper markings and other safety measures. The jet crashed, killing all 110 passengers and crew onboard. Valenzuela failed to appear in federal court nine years ago.

The Web site also lists EPA's captured fugitives. Earlier this year, EPA found two men on the run. David Allen Phillips escaped prison four years ago after being convicted of Clean Water Act crimes in Montana. He fled to Mexico, was turned over to authorities by the Mexican government last March, and awaits further sentencing. David Ortiz fled after the appeal of his conviction for Clean Water Act crimes in 2004. He remained at large for almost four years until his capture last March in Colorado and is currently in prison.

Anyone who encounters a fugitive should notify EPA by submitting the "Report a Fugitive" form on the Web site. The information will be electronically sent to EPA's national criminal investigation office in Washington, D.C. The public may also choose to report the information to their local police or, if outside the United States, to the nearest U.S. Embassy. Some fugitives may be armed and dangerous, and EPA warns the public against trying to apprehend them.

Many of the alleged violators listed on the Web site have

Advertiser Index

Aero Automatic Sprinkler Co.	9
Aplomado	9
ARCADIS	19
Ashtead Technology Rentals	16
ATC Associates	8
AWOS	17
ASU EH&S Seminars	19
Belfor Environmental	8
Carter Affiliates, Inc.	4
Chemical Transportation, Inc.	14
Clean Harbors	17
Clear Creek Associates	2
Columbia Analytical Services	16
Diversified Transportation Inc.	4
Environmental Response, Inc.	7
Envirosure Solutions	9
Grizzly Trackout Control	8
Hazard Prevention Institute	9
Kary Environmental Services, Inc.	5
Ken Reilly Seminars	2
Liquid Environmental Solutions	4
N. Weiss Associates, Inc.	9
PSC	15
SAEMS 2009 Save the Date RCRA	19
SESHA 31st Annual Symposium	3
Turner Laboratories, Inc.	15
Univar USA Inc.	20

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fled the country. EPA depends on cooperation with Interpol and other international law enforcement agencies to locate their whereabouts.

The FBI, U.S. Secret Service and the Bureau of Alcohol, Tobacco and Firearms also maintain web sites featuring fugitives from the law. but EPA is the first federal law enforcement agency to feature an environmental crimes fugitive web site.

Criminal charges are only allegations of misconduct. Individuals who have been charged with environmental crimes are presumed innocent. EPA's Most Wanted Web site can be found at www.epa.gov/fugitives.

EPA Enforcement Actions in Arizona Reduce Nearly 18 Million Pounds of Pollution

❖ EPA recently announced the agency's environmental enforcement accomplishments for 2008. The U.S. Environmental Protection Agency's 2008 enforcement cases in Arizona included major actions protecting the state's water, air and land resources.

Two significant enforcement actions in Arizona involved a power plant, the Salt River Project Agricultural Improvement and Power District's Coronado generating station, and a Scottsdale-based land developer, George H. Johnson, his companies, and land-clearing contractor, 3-F Contracting, Inc. These two actions, upon approval, will yield \$2.2 million in civil penalties.

"EPA enforcement actions in the state of Arizona will result in a reduction of nearly 18 million pounds of pollution and the clean up of more than 1 million cubic yards of contaminated soil and water," said Wayne Nasti, the EPA's administrator for the Pacific Southwest region. "In addition, over \$420 million will be invested in pollution control and environmental cleanups by 2014."

The Salt River Project Agricultural Improvement and Power District (SRP) 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.

Scottsdale-based developer George H. Johnson, his companies Johnson International, Inc. and General Hunt Properties, Inc. and land-clearing contractor 3-F Contracting, Inc. paid a combined \$1.25 million civil penalty. The penalty is the largest obtained in the history of EPA's Pacific Southwest Region, and one

of the largest in EPA's history, under Section 404 of the Clean Water Act, which protects against the unauthorized filling of federally protected waterways through a permit program administered jointly by EPA and the U.S. Army Corps of Engineers.

Nationally, the agency took civil and criminal enforcement actions requiring regulated entities to spend an estimated \$11.8 billion on pollution controls, cleanup and environmental projects, a record for EPA.



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US EPA & ADEQ Environmental Performance Track Staff:
 Left to right: Steve Owens, Director; Henry Darwin, ADEQ Administrative Counsel; Fran Schultz, Deputy Director Communities and Ecosystems Division, US EPA Region 9; Ian Bingham, ADEQ AZ Performance Track Program Administrator; Nina Kondos, ADEQ AZ Performance Track Support; Wayne Nastri, US EPA Region 9 Administrator; Charles Kent, US EPA Office of Policy, Economics and Innovation; and Lawrence Odle, Maricopa County Air Quality Department Director. *Photo courtesy of ADEQ.*

The U.S. Environmental Protection Agency and the Arizona Department of Environmental Quality (ADEQ) announced the signing of a Memorandum of Agreement on Arizona Performance Track and recognized seven members of the program on December 11, 2008.

Both Arizona Performance Track and the National Environmental Performance Track programs reward facilities that set three-year beyond compliance goals for continuous environmental improvement, have internal systems in place to manage their environmental impacts and engage their communities on environmental concerns. Only facilities with a record of sustained compliance with environmental requirements are eligible to participate in this program.

The tangible results from AZ Performance Track's charter members include the following:

US EPA and ADEQ Sign MOA on Performance Track AZ Environmental Leaders Honored

members include the following:

- Ping Inc. reduced its energy use by 24 percent from its 2004 baseline, the equivalent of 5,000 metric tons of CO₂, over its 3-year term of membership. Ping also cut their annual use of mineral spirits, a smog-forming compound, by 44 percent, 700 pounds.

- Intel Ocotillo avoided 4000 pounds of excess Volatile Organic Compound emissions that would have otherwise been expected with its increasing production. The facility also saved 244 million gallons of water by improving an already highly efficient water management system.

- The City of Scottsdale has conserved 615 acres of habitat, during its current term of membership and 3485 acres in their prior term. Past efforts by Scottsdale bring their total conservation to more than 14,416 acres to the McDowell-Sonoran Preserve. Scottsdale has also recharged more than 4 billion gallons of water to its underground aquifer since 2004.

- Xanterra South Rim, LLC reduced its greenhouse gas emissions by 6 percent, the equivalent of 855 metric tons of CO₂, and cut water use by 2.7 million gallons, on a per visitor basis. The focus on water conservation has continued from its first term of membership, when Xanterra reduced 14 million gallons per year from its 2002 baseline.

Three new Arizona Performance Track members have not yet reported data to ADEQ but have a proven track record through participation in EPA's program:

- Freescale Chandler reduced their use of several acidic and corrosive hazardous chemicals, such as hydrogen peroxide, hydrofluoric acid, phosphoric acid, nitric acid, sulfuric acid, and ammonium hydroxide. The use of these compounds has been reduced by 84 tons or nearly 40 percent.

- Freescale Tempe has reduced their generation of solid waste by 153 tons, or 17 percent, and has also increased their diversion of waste from landfills by placing 70 new recycling centers at their facility.

- Mormon Lake Lodge, in their first year of membership, has reduced energy by 3 percent, equivalent to nearly 15 tons of CO₂ emissions, through employee training and the installation of energy efficient lighting and equipment.

"These companies are



Performance Track MoA Signed
 Left to right: Steve Owens, Director, ADEQ; Wayne Nastri, US EPA Region 9 Administrator; Lawrence Odle, Maricopa County Air Quality Department Director. *Photo courtesy of ADEQ.*

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achieving tangible environmental results that go beyond existing requirements," said Wayne Nastro, the EPA's administrator for the Pacific Southwest Region. "Our Memorandum of Agreement signals a high level of cooperation in administering the state and federal Performance Track programs in encouraging and showing the value of environmental leadership."

"The Performance Track program helps recognize and incentivize businesses and others who do the right thing and go above and beyond the minimum requirements of our environmental laws and regulations," said Steve Owens, ADEQ Director. "It also enables us to focus our limited resources on those other entities that need attention to comply with the law."

Since the 2000 launch of EPA's Performance Track program, membership has grown to 547 members in 49 states and Puerto Rico. Members have set more than 4,000 goals to benefit the environment. As a result, Performance Track members have reduced energy use by 4.2 trillion BTUs, saved 3.7 billion gallons of water, cut VOC air emissions by more than 3,000 tons, reduced hazardous waste by more than 50,000 tons and conserved nearly 17,000 acres of land, while helping to protect the local and natural environments. Today's Memorandum of Agreement was the 14th to be signed by EPA and state environmental regulatory agencies.

For information on the National Environmental Performance Track program visit: <http://www.epa.gov/region09/performance-track/>, and for Arizona Performance Track visit <http://www.azdeq.gov/function/about-track.html>.



Recognition of City of Scottsdale. L to R: Lawrence Odle, Maricopa County Air Quality Department Director; Steve Owens, Director, ADEQ; Larry Person, City of Scottsdale Senior Environmental Coordinator; Wayne Nastro, US EPA Region 9 Administrator; Charles Kent, US EPA Office of Policy, Economics and Innovation. Photo courtesy of ADEQ.



Recognition of Ping. L to R: Lawrence Odle, Maricopa County Air Quality Department Director; Steve Owens, Director, ADEQ; Rob Barnett, Ping Director of Environmental Systems; Matt Conway, Ping Senior Environmental Engineer; Wayne Nastro, US EPA Region 9 Administrator; Charles Kent, US EPA Office of Policy, Economics and Innovation. Photo courtesy of ADEQ.



Recognition of Intel. L to R: Lawrence Odle, Maricopa County Air Quality Department Director; Steve Owens, Director, ADEQ; Jim Larsen, Intel Environmental, Health, and Safety Manager; Sean Aldrich, Intel Environmental Engineer; Len Drago, Intel Arizona EHS Strategic Program Manager; Wayne Nastro, US EPA Region 9 Administrator; Charles Kent, US EPA Office of Policy, Economics and Innovation. Photo courtesy of ADEQ.



Recognition of Mormon Lake Lodge. Left to right: Steve Owens, Director, ADEQ; Andrew Moore, Mormon Lake Lodge Food and Beverage Operations Manager; Wayne Nastro, US EPA Region 9 Administrator; Charles Kent, US EPA Office of Policy, Economics and Innovation. Photo courtesy of ADEQ.



Recognition of Freescale Semiconductor, Inc. Chandler and Tempe Facilities. L to R: Lawrence Odle, Maricopa County Air Quality Department Director; Steve Owens, Director, ADEQ; Hsi-An Kwong, P.E., Freescale Semiconductor EHS Department; Hana De Leon Dostalova, Freescale Semiconductor EHS Engineer; Wayne Nastro, US EPA Region 9 Administrator; Charles Kent, US EPA Office of Policy, Economics and Innovation. Photo courtesy of ADEQ.

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Larry Olson, PhD.

It's All About Chemistry

Perchlorate - An Emerging Contaminant

EPA defines an “emerging contaminant” as a chemical or material that is a perceived, potential, or real threat to human health or the environment where new sources or pathways of human exposure have been discovered and where health standards are non-existent or evolving. One such chemical is perchlorate and it has been much in the news lately.

The perchlorate ion, ClO_4^- , may occur naturally in soils, particularly in the Atacama Desert in Chile and other arid environments such as the southwestern U.S. It is also produced commercially for use in fireworks, signal flares, and as a solid propellant in rockets and missiles. For example, the solid rocket boosters on the space shuttle produce thrust through a reaction where Al is oxidized, Cl is reduced, and hot gases are produced:

$$10 \text{ Al(s)} + 6 \text{ NH}_4\text{ClO}_4\text{(s)} \rightarrow 4 \text{ Al}_2\text{O}_3\text{(s)} + 2 \text{ AlCl}_3\text{(s)} + 12 \text{ H}_2\text{O(g)} + 3 \text{ N}_2\text{(g)}$$

Once ignited, the reaction can't be stopped. The temperature rises to about 5800 °F which causes a rapid expansion of the gases and provides about 71% of the lift needed to get the shuttle into orbit.

Almost all manufactured perchlorate consists of four compounds: ammonium, sodium, and potassium perchlorate and perchloric acid. Perchlorate salts are water soluble and so they can migrate quickly from soil to ground water, where plumes can be extensive. Even though perchlorate is a strong oxidizer, it is relatively unreactive at room temperature, not volatile, and not subject to biodegradation. Thus, perchlorates are considered persistent contaminants. Perchlorate has been detected at nearly 270 sites in the U.S., primarily in areas associated with the manufacture and use of ammunition and rocket fuels.

The thyroid gland synthesizes hormones involved in the body's metabolism, reproduction, cardiovascular system and nervous system. Iodide is crucial to the production of key thyroid

hormones and perchlorate, like nitrates or thiocyanates from cigarette smoke, can interfere with the uptake of iodide by the thyroid. For this reason potassium perchlorate was used to treat hyperthyroidism (too much thyroid activity) in the 1950s and 60s with good results. But the practice was discontinued after suspicions about a link to aplastic anemia in some patients. Hypothyroidism is more common and results in decreased metabolism, tiredness, impairment in movement, vision, and intelligence. The effects of low levels of thyroid hormones can be more even more devastating for pregnant women and for a developing fetus or infant.

The major routes of human exposure to perchlorate are through drinking water and food. Perchlorate concentrations of less than 4 µg/L have been detected in the Colorado River downstream from Hoover Dam. Contaminated water is used in some areas for irrigation and studies have shown perchlorate to accumulate in leafy greens, alfalfa, cattle, and milk.

But what levels would be expected to cause measurable effects on thyroid function? Epidemiological studies have suggested an association with perchlorate exposure, but since individual exposures were not characterized, definitive cause and effect links are hard to establish.

In 2005, the National Research Council recommended a perchlorate reference dose (RfD), also adopted by EPA, of 0.7 µg/kg of body weight per day – a level that would not be expected to cause deleterious effects over a lifetime of exposure. If we assume that all perchlorate exposure comes from drinking water, the RfD equates to a Drinking Water Equivalent Level (DWEL) of 24.5 µg/L. In October 2008, EPA published in the Federal Register a preliminary regulatory determination that it would not establish a national drinking water standard for perchlorate because there was not “a meaningful opportunity for health risk reduction...” Over 32,000 comments were received on this decision and EPA announced in December 2008 that it would ask the National Research Council to look again at the effect of perchlorate exposure on sensitive populations. Until these results are received, EPA has established an Interim Drinking Water Health Advisory level of 15 µg/L. Stay tuned – this story isn't over.



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Photo: courtesy of NASA.

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