

Volume 20, Number 2

# HAZMATTERS





## A MESSAGE FROM THE PRESIDENT, CELESTE SUTTER, CHMM

Dear Fellow Chapter Members,

As an Environmental Health and Safety professional at a small liberal arts college, my focus is often on the fulfillment of regulation requirements. This involves the implementation of protocols in order to be in compliance, as well as the identification of our institution's shortcomings. It is also important to keep aware of new regulations which may require my attention. It is difficult to expand beyond compliance issues in a one-person department. Recently however, I was asked to develop an Environmental Management System for Hanover College. This process has provided me with the opportunity to view the profession through a much wider lens. In order to accomplish the task at hand, I had to assess the college's current impact on the environment. The project of gathering and analyzing information is enjoyable. However, finding an avenue to implement policy changes, that is, unraveling the red tape and persuading the campus community to "buy-in" to the changes is a whole new ball game. One of the first things I tackled was a complete waste stream assessment, with an initial focus on solid waste. It was clear from the beginning that our recycling program needed much attention. The wheels are turning and we are moving forward with the necessary changes to drastically improve our recycling efforts and thus reduce our landfill contribution. These new recycling measures will yield a significant economic savings and enable the college to be a better steward of the environment.

Our assessment prompted me to investigate recycling on a broader scale. The practices of even a small institution can have a big impact on the environment. I was raised by parents who grew up during the Depression. Very rarely were things discarded: there was always another use to be found. Worn out clothes became rags, old broom or mop handles became garden stakes, paper bags served as wrapping paper—the list goes on and on. We saved and returned milk and pop bottles to the store and reused plastic margarine tubs to store leftovers. Recycling was not about a conscious awareness of the environment, but a carry-over of times when recycling was a necessity due to scarce resources. Times have certainly changed. One thing is perfectly clear we live in a throw-away society. It is all about short-term convenience, while we tend to ignore the long-term consequences. One is hard pressed to find a packaged product without some kind of petroleum based plastic. It is estimated that less than 5% of plastics are recycled, about 50% ends up in the land-



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fills and the rest is “lost” in the environment. The usage of plastic products has steeply increased over the last 70 years, from next to nothing in 1940 to almost six hundred billion pounds today. The average American in 1960 consumed about thirty pounds of plastic products. Today, the average American consumes more than three hundred pounds per year, generating sales of over three hundred billion dollars. The qualities of plastic, which make it so appealing for manufacturer and consumer use, are unfortunately the qualities that make it so difficult to deal with as a solid waste. It is synthetic, so its production requires fewer natural resources; it is durable—it won’t dissolve, rust or break down; it is relatively cheap to produce and made with “waste” products of the petroleum industry; it’s versatile—it can be formed or molded and made into nearly any conceivable product.

A recent visit to a recycling center opened my eyes to enormity of the problem we face. Mounds and mounds of plastic and we only recycle less than 5%? The world’s largest landfill is the Great Pacific Garbage Patch—containing approximately 3.5 million tons of trash, most of which is plastic. It is located in the North Pacific Ocean, bound together by the North Pacific Gyre—a “plastic soup” roughly estimated to be the size of Texas. So how do all these plastics end up in the ocean? Roughly 80% makes its way from land—washed through sewers, creeks, rivers, etc., and eventually making its way



to the Pacific Ocean. (Just look at what is left behind, once the water recedes from the spring flooding—this gives us a glimpse of the magnitude of the problem.) The rest of the pollution comes from free floating fishing nets, lost cargo from ships, oil rigs, recreational boaters, etc. Most plastics produced today are not biodegradable and many biodegradable products will only degrade if exposed to sunlight. So we are left with the Sisyphean tasks of finding a solution to manage millions of tons of plastic waste *and* executing change in our current “throw away” culture. Ultimately, we want to increase recycling efforts and compel the public to understand the need to move toward a “reuse and recycle” society.

Can one person make a difference? The answer of course is “yes”—it is the collective efforts of *individuals* that make an impact. We in the EH & S profession can promote changes in our companies and institutions. You can make a difference—and inspire others to join you. Often this involves changes in policies and procedures that have “always been done that way”—not an easy endeavor. Inertia is a difficult hurdle to get beyond; however, conducting an analysis of your energy, environmental, and purchasing policies is an excellent start. We must prevail over the myopic view that environmental issues are “not my problem” and strive to make improvements as best we can. My hope for Hanover College is that the new recycling program and other environmental efforts will result in a shift in attitude: students, faculty, and staff will come to understand care for the environment not as a passing thought or a classroom discussion, but rather as a way of life.

**Celeste Sutter, CHMM**  
KCHMM President

## NEW CHAPTER MEMBER

Welcome new KCHMM Member **Kim Burke, CHMM**, with Taft, Stettinius, and Hollister, LLP

## KENTUCKY LEGISLATIVE UPDATE

Submitted by **Lauran Sturm, Stites & Harbison**

On May 20, 2011, EPA published a proposed rule, National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers (PVC) Production, in the Federal Register. This rule applies to owners or operators of PVC production units associated with major or area sources. PVC production units include polymerization reactors, resin strippers, centrifuges, heat exchange systems, wastewater strippers, and finished product loading operations. The proposed rule is meant to govern PVC production units currently subject to the vinyl chloride NESHAP requirements in 40 CFR Part 61 and includes emission limits for hydrogen chloride and dioxin/furan, in addition to vinyl chloride.

EPA previously promulgated NESHAP for PVC producers in July 2002. That rulemaking incorporated 40 CFR Part 61 and treated vinyl chloride as a surrogate for all hazardous air pollutants emitted from PVC production units. A 2004 court case challenged the use of vinyl chloride as a surrogate, and the court vacated and remanded the 2002 rule in its entirety. The proposed rule is EPA's response to that court ruling.

EPA has extended the public comment period on the proposed national mercury and air toxics standards through August 4, 2011. The proposed standards are designed to reduce emissions of heavy metals and acid gases from new and existing coal- and oil-fired electric steam generating units. Through the proposed rule, EPA has also suggested changes to the new performance standards for boilers that burn fuels (including coal, oil, and natural gas) to produce steam for electricity or heat.

## CLEAN AIR ACT SEMINARS

**Brad Coyle, CHMM**, will be presenting on the Boiler MACT Rule at the Clean Air Act Seminar, presented by the Kentucky Chamber, in August. The seminar will be presented on August 4, 2011 in Lexington, KY, and on August 10, 2011 in Louisville, KY. For more information, contact Brad at [bcogle@lfienv.com](mailto:bcogle@lfienv.com).

## ACCEPTING SUBMISSIONS FOR THE NEWSLETTER

The Newsletter Committee happily accepts any items of interest to our general membership for inclusion in *HazMatters*. If you have industry information, training classes, chapter functions, technical articles, or other information for our members, please submit these items to **Bryant Lewis, CHMM**, *HazMatters* Editor, at [lewisbe@cdm.com](mailto:lewisbe@cdm.com). Thank you!

**NEXT KCHMM MEETING: WED JULY 6, 2011, RAMADA DOWNTOWN NORTH**

**KCHMM Meeting Invitation**  
**July 6, 2011, at the **Ramada Downtown North****

Located on Zorn Avenue: I-71, Exit 2; 1041 Zorn Avenue; Louisville, Kentucky 40207; Phone: 502-897-5101

Please RSVP before 5:00 PM on Friday, July 1, to [sammonsvl@cdm.com](mailto:sammonsvl@cdm.com).

Our technical presentation will be on the topic of:

**"THE STATE OF METRO LOUISVILLE'S AIR"**

**LAUREN ANDERSON - Executive Director of Louisville Metro Air Pollution Control District, Louisville, KY**

(This technical session will earn you 1 CMP toward renewal of your CHMM or CHMP credential.)

Lauren Anderson, Executive Director of LMAPCD, will provide a 45 minute discussion on a range of the agency's 2011 activities, such as: LMAPCD regulatory initiatives, EPA Region IV points of interest, permit application backlog, LMAPCD enforcement initiatives, and Louisville Metro ambient monitoring trends. The final 15 minutes of her presentation will be a Q&A session.

About the Speaker:

Ms. Anderson was appointed Executive Director of the Louisville Metro Air Pollution Control District by then Mayor Jerry Abramson on August 8<sup>th</sup>, 2008. She had worked as an attorney for the agency since 2003. She has also worked for the Legislative Review Commission in Frankfort and was a staff attorney for the state Natural Resources and Environmental Protection Cabinet. She was awarded a bachelor's degree from Columbia University and a J.D. from the University of Louisville.

Please RSVP including your name and number of reservations before 5:00 PM on Friday, July 1, to our Treasurer, Vickie Sammons, via [sammonsvl@cdm.com](mailto:sammonsvl@cdm.com).

**NOTE: RESERVATIONS MADE AFTER 5:00 PM ON 7/1/2011 WILL NOT QUALIFY FOR THE \$5 DISCOUNT.**

**Visitors are always welcome!** Please feel free to pass this meeting notice on to a friend or colleague. They need not be a member to attend (just RSVP by 7/1 and pay the \$25 discounted meeting fee).

Our dinner meeting schedule:

- Chapter Board Meeting 4:00 to 5:30 p.m.,
- Social hour begins at 5:30 p.m., Hotel Lounge
- Dinner served at approximately 6:15 p.m., Conference Room
- The business meeting will start at around 6:50 p.m., with
- Technical presentation immediately following (7:00 - 8:00 p.m.)

Meeting Costs: Cost for the meeting is \$25 for those that RSVP before 5 PM on Monday 7/1/2011, or \$30 if you do not RSVP. If you make a reservation and do not attend, an invoice for \$25 will be mailed to you. Make all checks payable to KCHMM.

## ENVIRONMENTAL STEWARDSHIP ABOARD A CRUISE SHIP

Submitted by **Jennifer Triplett, CHMM**

I just came back from an Alaskan Cruise with my family. My parents and all my siblings & spouses were on this trip celebrating my parents 50th wedding anniversary. Ever mindful of how environmental, health & safety issues affect every aspect of our lives, I like to look for regulatory issues even on vacation (yes, I am a regulatory nerd).

As some of you know, my father is an ISO 14001 and 18001 auditor and since we were on the cruise together, I called the EHS manager and asked for an audience for the two of us. The EHS Manager (only introduced himself as "Roy") was gracious to receive us and speak with us for the better part of an hour. We learned that all of the Holland America cruise ships have a full time EHS manager. Roy's duties include not only environmental health & safety, but also food safety.

It turns out that the Holland America Corporation is ISO 14001 certified by Lloyds of London. Roy said he believes that they were perhaps the first line of cruise ships with this certification. It is apparently becoming more common for cruise lines to seek 14001 certification. The cruise ship industry has been plagued with bad PR due to waste dumping in the ocean. As a result, the 14001 certification is an excellent way for a cruise line to differentiate themselves and be held accountable for their performance.

Due to security issues, we were unable to tour the facilities below decks, but we were given an Environmental Stewardship DVD which gave an overview of the technology and processes used on board. I was amazed to learn that the Westerdam has a desalinization plant and drinking water treatment plant on board. So the water we were drinking on the cruise was in fact ocean water which had the impurities removed. In addition, the Westerdam also has a wastewater treatment plant for "black water" which includes waste from toilets, cleaning water and kitchens. Gray water from showers could be directly discharged to the ocean, however the Westerdam usually combines all waters for treatment.

I asked EHS Mgr Roy how they handled adhering to regulatory requirements since they make so many stops in port. He indicated that their corporate office investigates the regulations from their Flag State (the country of origin), the Port State (the state/country where they will dock) and any other regional requirements. In addition, they are subject to MARPOL regulations which are the United Nations regulations particular to ships.

Now, you probably thought dealing with one state and federal entity making rules for your organization was taxing enough, but just imagine the number of rules applicable to cruise ships with many different itineraries. Holland America has integrated programs, procedures and technology which allow them to minimize the impact to the environment. This includes sorting waste, recycling and grinding food waste into a paste prior to discharging it deep into the ocean as "fish food". In addition to handling wastewater and drinking water, the ship also processes bilge water to remove any oil prior to discharge. Holland America has invested in new technology to assure that oil is stripped from the bilge water and doesn't contaminate the ocean. They are currently experimenting with scrubber technology to diminish the diesel particulate coming from their engines. They are using salt water from the ocean, spraying it into the diesel exhaust to collect the SO<sub>2</sub> and NO<sub>2</sub> prior to discharge. Then, they run the water back through a filter to remove the contaminants prior to discharging.

All in all, I was impressed with the efforts Holland America has gone to assure not only environmental compliance but regulatory excellence! I would definitely cruise on Holland America again!

## HIGHLIGHTS FROM MAY'S MEETING

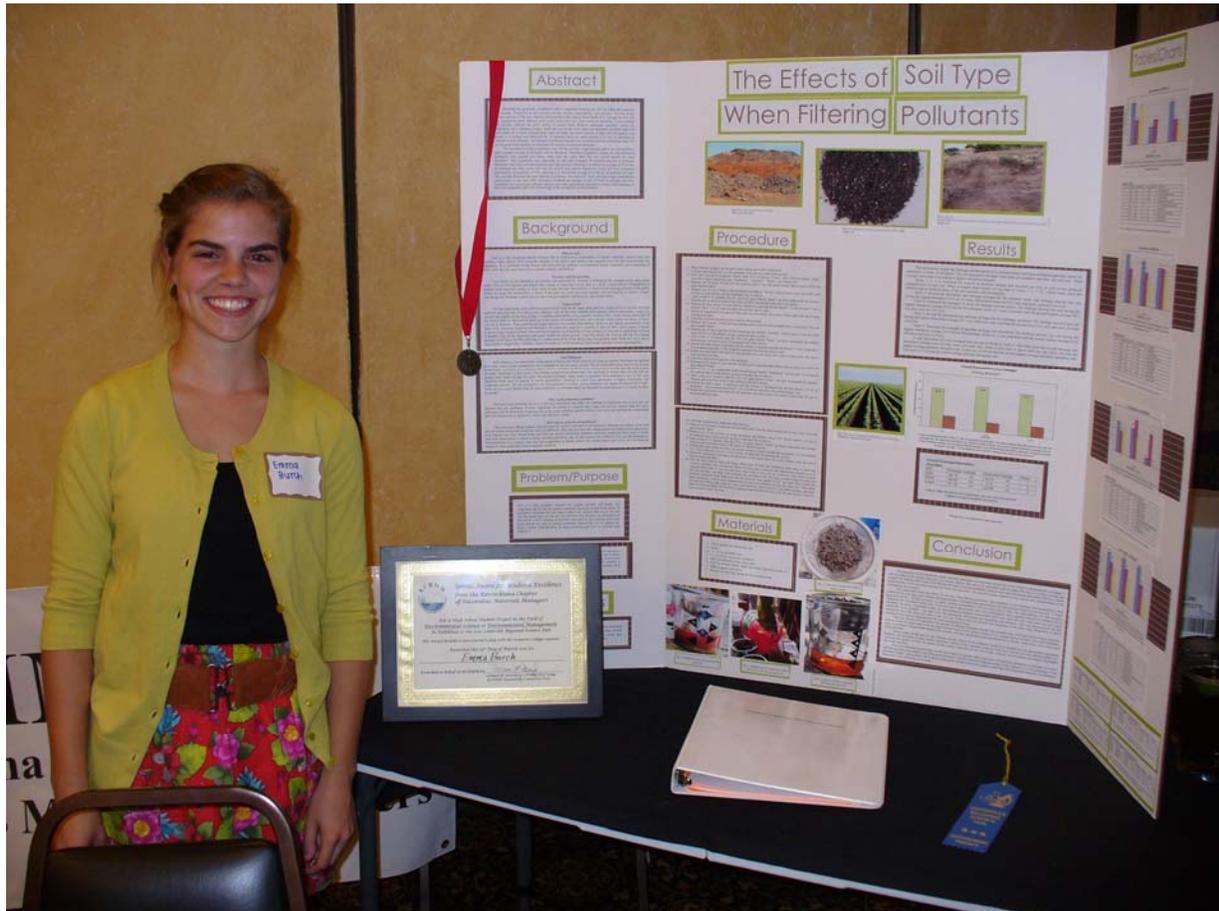
At our May meeting, **Kim Burke, CHMM** of Taft, Stettinius, and Hollister LLP presented "How Not To Step In It From a Legal Perspective When Conducting Internal Audits." The presentation focused on State and Federal laws and policy regarding internal EHS audits. Indiana, Ohio, and Kentucky were covered in his presentation.



KCHMM Vice-President **Larry Schumer, CHMM**, presents Kim with the Speaker's Award. May's meeting was the first held at our new meeting site, the Ramada North. Members took advantage of the generous happy hour and Mexican food buffet prior to the presentation.

## SCIENCE FAIR AWARD PRESENTED

At our May meeting, KCHMM presented Emma Burch, a participant in the Louisville Regional Science Fair, the *Special Award for Academic Excellence*. Emma received this award for her project, "The Effects of Soil Type When Filtering Pollutants." The award included a \$300 stipend to help with her college expenses, and Emma brought her project to the May meeting.



## EDUCATION COMMITTEE REPORT

Submitted by **Paul Hoza, CHMM**

April's CPR/AED training course was canceled due to low attendance. If there is sufficient interest, it can be re-scheduled later this year. A "Training Needs" survey was distributed to the members in mid May as an attempt to identify the type of training needed by the membership. Unfortunately, the response was low and did not provide any useful insight as to the type of training wanted or needed. However, we still have 6 months left in 2011, which is more than enough time to plan and schedule the appropriate training to meet member needs, but we need to know what you want us to provide! Feel free to call or email Paul Hoza (502-852-2960, [paul.hoza@louisville.edu](mailto:paul.hoza@louisville.edu)) with questions, course recommendations or suggestions for the Education Committee.

## COMPLIANCE PLANS (SHOULD AND SHOULDN'TS) 101

**By Kenny Reutlinger, KCHMM**

I will preface this article by stating I have not taken an advanced writing course (technical or otherwise). English was never my strong suit at any time during my primary and secondary educational stops, and the last thing I wanted to do was to break down sentences and paragraphs to understand their structures, or to really consider the meaning of certain words in specific contexts. However, I have written and reviewed numerous environmental compliance plans in my 20 plus years working in the environmental field, and feel my on-the-job experience allows me to speak to this topic on a very basic and practical level.

Writing an environmental compliance plan for a regulated entity is commonplace for CHMMs. These might include hazardous material spill plans, storm water pollution prevention plans, hazardous waste management plans, integrated contingency plans, ozone depleting substances management plans, and a whole host of similar plans. Typically, a permit or regulatory requirement derived from or related to a law and/or ordinance requires the entity to prepare these plans. The plan acts like an extension of a regulatory agency by including provisions to be followed by the entity. A review of the plan by the regulatory agency provides immediate insight as to the compliance status of the entity (i.e., if the required environmental compliance plan has not been written and implemented, there is typically a significant compliance problem).

When the plan is not actually written by the entity to which the requirements apply, the plan sometimes becomes something similar to an instruction manual. This occurs primarily because the plan regurgitates the regulatory requirements, and often includes words like “should” throughout the document. As an example of the problem language, consider the sentence “The facility should perform inspections of the potential pollutant sources quarterly”. As stated, one could interpret the sentence to imply quarterly inspections are either not required or optional. If the staff of the entity for which the plan was written does not thoroughly understand the applicable requirements of the underlying permit or regulations, they may not execute them due to the ambiguity of the sentence because of the word “should”.

The use of the word “should” within an environmental compliance plan presents another problem for the entity required to prepare the plan. Compliance plans are typically considered legal documents within the applicable regulatory program by which they are required. Because of this, their contents are considered extensions of the associated regulations or permit. The word “should” might be included within a plan to recommend a certain action or activity not specifically required to be performed by the regulation or permit. I recall including a specific set of recommendations in a draft storm water pollution prevention plan early in my consulting career. An internal peer review by a mentor resulted in a comment in the form of a pistol with smoke at the end of the barrel. The lesson was crystal clear. Unless very clearly defined and described, such a statement could easily be interpreted as a requirement to maintain compliance. Failure to follow the recommendations might be considered non-compliance within the regulatory program.

Even high-level government agencies have occasionally fallen into this writing trap. For example, the original version of Title 40, Code of Federal Regulations, Part 112 (40 CFR 112), pertaining to Spill Prevention Control and Countermeasure (SPCC) Plans, consistently used the word “should” throughout the text. This usage portrayed some of the 40 CFR 112 regulatory

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# COMPLIANCE PLANS “SHOULD AND SHOULDN’TS” - 101

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provisions as optional. However, the SPCC program staff throughout the United States Environmental Protection Agency (USEPA) regions consistently stated the provisions were not optional, despite the text. USEPA eventually acknowledged the issue and corrected the 40 CFR 112 language in the 2002 program revisions to include words like “shall” in place of “should”.

While use of the word “should” throughout a compliance plan is typically a red flag, there are occasions where the use is actually warranted. I had the occasion to update a hazardous waste management plan for a military entity. This entity’s plan was being used throughout their state by the other related military installations. The entity specifically wanted the plan to take the form of an instruction manual, providing the various potential scenarios possible and the options available for handling and shipping waste materials. Because of this intent, the word “should” was used throughout the document, in conjunction with a number of if/then scenarios. At the end of each if/then scenario, there was an actual action that was to be performed by the entity. The inclusion of this information considerably lengthened the plan, but the entity wanted the document to be able to educate and direct his associates with a one document fits all approach.

Another important point to writing compliance plans is the point of view. In the above-referenced sentence “The facility **should** perform inspections of the potential pollutant sources quarterly” may be considered inaccurate even if quarterly inspections are not required, since a compliance plan is normally to be written from the entity’s point of view. In other words, the plan needs to indicate what the entity “is” actually doing or what they “will” be doing, given certain scenarios. So a better way to convey this information might be “The facility **performs** quarterly inspections of the potential pollutant sources”.

Finally, if a compliance document references actions which must have already been accomplished, such as it must be signed by the entity, the past tense should be used. For example, instead of “this document will be signed by the authorized representative.” More appropriate verbiage might be “This document has been signed below by the authorized representative.”

One key to writing an accurate and executable compliance plan is good communication with the entity tasked with plan execution. While plans generally have certain hard-and-fast requirements to be implemented or executed, there is some variability as to how the compliance with the requirements may be accomplished. The regulated entity relies on the hired-help (i.e., the consultant) to prepare a document with clear and concise language so as to help the entity to thoroughly understand their obligations. And, in a few rare instances such as the one described previously, just because a certain word or term typically represents a red flag, some entities are able to use it to meet their unique needs.

While most CHMMs have a degree in or at least closely related to science and/or engineering, writing was probably the last skill set we envisioned needing to any significant degree for our post graduate life. Had I known how much writing I would need to perform during my career, I would have paid much more attention in the English classes mandated by my respective curriculums. Environmental compliance plans are written to convey very specific information. The manner and style in which language is used within plans is subject to debate, but there are certainly some do’s and don’ts that need to be considered. The word “should” is just the tip of the iceberg, but it also represents probably the most common mistake in the realm of environmental compliance plan writing. Attention to this particular word within an environmental compliance plan will go a long way to providing an entity with a document not subject to interpretation.