

Volume 21 Number 2

HAZMATTERS





A MESSAGE FROM THE PRESIDENT, LARRY SCHUMER, CHMM

Trust all had an enjoyable summer as it winds down, vacations come to a close and children return to school.

KCHMM is striving as ever as we enter the Fall season. Due to the resignation of one of our Board, who had unexpected demands at work, I ask you to join the Board in welcoming our new Secretary. Paul Hoza, CHMM, who accepted the Board's unanimous approval to serve as our 2012-2013 Secretary. We appreciate greatly Paul's continued support of the Chapter.

April was an exciting month for our outreach programs. Michelle Baker, Vice President and Chair of our Outreach & Publicity Committee, hosted a booth representing KCHMM at the 2012 Governor's 28th Health and Safety Conference at the Galt House in Louisville. And, our Stewardship Committee chair, Corinne, again hosted our booth at the Zoo's Earth Day celebration. The support of numerous chapter volunteers, lead to the success of both outreach programs.

In July, over 50 of our friends and colleagues celebrated our 2012 Social Event in the cool environs of Louisville's Mega Cavern. Michelle's efforts in planning and overseeing the success of the event at a venue that afforded respite from the record heat of July delivered a successful evening of food and learning. The Cavern tour provided insight into the geology, history and creation of the cavern, the unique role it played during the Cold War, and the environmental and safety measures that allowed its beneficial development.

Please join me in demonstrating your appreciation to the firms listed on the front page of this newsletter. The continued generosity of our Corporate Sponsors for 2012 is greatly appreciated; and will allow KCHMM to continue our outreach and educational programs this year.

Your Board is currently pursuing opportunities to team with related professional organizations and groups to expand KCHMM's reach and value to you, the membership. September brings the award of our Annual Rachel Davis Award and a slate of nominees to lead KCHMM in 2013. And a committee has been formed to review meeting venue alternatives. If you have an interest in participating

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2012 CORPORATE SPONSORS

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DOT ANNOUNCES PROPOSED RULEMAKING ON RETURNS OF HAZMAT (“REVERSE LOGISTICS”)

Submitted by Kim Burke, Taft, Stettinius & Hollister LLP

Many companies distributing products classified as hazardous materials under DOT regulations at 49 C.F.R. struggle with the tension between providing quality customer service by accepting returns of product with the difficulty in ensuring DOT compliance during transportation of the returned product. Some distributors use their own vehicles to pick-up returns; others rely on the customer to figure it out. The complexity of the DOT hazmat regulations makes these transactions tricky, but they are occurring with great frequency as distributors strive to be service oriented and develop customer loyalty.

DOT recognizes that returned hazmat products may justify a more relaxed approach because they pose less of a threat to commerce and the environment, and because encouraging product returns discourages their improper handling and disposal. On July 5, 2012, DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) announced an Advanced Notice of Proposed Rulemaking on this subject. 77 Fed.Reg. 39662. Distributors of any product that is classified as DOT hazmat should take note of this opportunity to comment on the benefits derived by encouraging returns of hazmat products without imposing regulatory constraints that have the ultimate effect of discouraging environmental protection and increasing the costs of doing business.

A Message From the President, continued from page 2:

on the leadership team, please contact any Board member re: your interest or if you wish to nominate another.

The upcoming elections, as well as our eleven committees, offer you the opportunity to share your EHS&S expertise, connect with colleagues and to give back to our community. If you would like to contribute your expertise and enthusiasm, or have suggestions for ways to improve the value to our membership, please contact any of your Board members.

Thank you to all for your continued support and I look forward to seeing you at an upcoming meeting.

Until next time,

Larry Schumer, CHMM

EPA ISSUES EPCRA REVISED TIER II REPORTING RULE

Submitted by Kim Burke, Taft, Stettinius & Hollister LLP

USEPA issued revisions to the Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II inventory reporting requirements. See Final Rule, 77 Fed.Reg. 41300 (July 13, 2012), effective January 1, 2014. Under the revised rule issued to implement EPCRA §§ 311-312, those required to report under either Tier I or II must report the facility latitude and longitude, and the identification numbers assigned under the Toxic Release Inventory (TRI: EPCRA § 313, Form R) and the facility's Risk Management Program (Clean Air Act, § 112(r)). The revised forms also will require reporting of the following:

- Whether a facility is manned or unmanned in lieu of reporting the number of full-time employees.
- Contact information for the facility emergency coordinator.
- Whether the facility is subject to Section 302 Extremely Hazardous Substances and Clean Air Act § 112(r) Risk Management Programs.
- Separate data for pure chemicals and mixtures, storage types and conditions.
- Any additional state or local reporting requirements.

EPA's rule changes are codified at 40 C.F.R. Part 370.

NEW CHMM RECERTIFICATION HANDBOOK APPROVED

Rockville, Maryland (24 July 2012) – New CHMM Recertification Handbook Approved by the IHMM Board of Directors.

In order to maintain the highest standards for recertification, the CHMM Recertification Committee reviews inquiries and recommendations for evaluation (RFEs), and evaluates activities that may be claimed for recertification in accordance with IHMM's policies and procedures on an ongoing basis. As a result of these reviews the recommendation by the CHMM

Recertification Committee and subsequent IHMM Board of Directors approval in February 2012 is to make modifications to the current CHMM Recertification Handbook (April 2010). These revisions include changes that are the result of inquiries and RFEs made by IHMM Staff, CHMM Recertification Committee members, and/or IHMM certificants. Publication will be done electronically, to be posted on the IHMM website. CHMMs scheduled to expire after July 31, 2012 should reference the CHMM Recertification Handbook (July 2012) during the recertification process.

"IHMM certificants are required to prove continued competency as a Hazardous Materials Manager every five years," stated Laurie Segna, IHMM Board Director. "IHMM's Credential Management program provides processes where credential requirements are continually reviewed in response to questions and comments."

NOMINATIONS SOUGHT FOR KCHMM BOARD MEMBERS AND DIRECTORS

Submitted by Celeste Sutter, Chair of the Nominations Committee

Fellow KCHMMs,

It's not too early to think about running for a position on the Board of Directors! Please consider sharing some of your time and expertise to the continued development and success of the Chapter. If you are willing to serve or wish to nominate a fellow member to serve on the 2013 Board of Directors, please submit the information to Celeste Sutter sutterc@hanover.edu, Chair of the Nominations Committee.

The Board consists of ten positions (five officers and five at-large directors):

Immediate Past President This position is a non-elected position and is filled by the out-going President. The responsibilities include recruiting new members and assisting the BoDs in promoting the Chapter's objectives.

President The candidates for President must be a CHMM and in good standing with the Chapter. The President is elected for a term of one year and agrees to serve as the Immediate Past President for the following year. The President shall preside over Chapter meetings and interface with other Chapters, AHMP, and other environmental organizations; submit the annual report of activities of the office of the President to the members; and plan the Annual Meeting held in January.

Vice President The candidates for Vice President must be a CHMM and in good standing with the Chapter and be willing to run for President and serve as Immediate Past President in the subsequent years. The Vice President shall preside over Chapter meetings in the absence of the President and serve as Programming Chair, coordinating all the technical sessions for each of the meetings. The Chapter generally sponsors the Vice President (all expenses paid) to attend the AHMP Leadership Conference and has the opportunity to attend the National Conference as the Chapter Delegate with some of the expenses covered by the Chapter and AHMP.

Secretary Candidates for this position must be in good standing with the Chapter. The Secretary is responsible for documenting Chapter and Board meetings, including any e-meetings; maintaining and updating Chapter records, documenting Chapter sponsored training and all official correspondence of the Chapter.

Treasurer Candidates for this position must be in good standing with the Chapter. The Treasurer is responsible for documenting membership in conjunction with the Membership committee, maintaining the Chapter financial records, and interfacing with government regulators to maintain Chapter non-profit status. The Treasurer reports the status of all funds at each membership meeting and assists the Board in preparing regular Chapter financial reports.

Directors- at-Large Candidates for this position must be in good standing with the Chapter. Directors are asked to contribute a feature article for inclusion in the quarterly newsletter and to serve on other committees or assist with new initiatives as needed to carry out implementation of Chapter goals and objectives.

JULY MEETING RECAP

Submitted by Michelle Baker

Fifty KCHMM members, families and friends cooled off during the height of this year's heat wave in the always cool, 58 degree, Louisville MEGAcavern. On July 11, the group enjoyed Quizno's salads and sandwiches picnic-style and toured the 100 acre cavern. After dinner, the group boarded a tram for the historical and geological tour. The Louisville MEGAcavern is a cavern – not a cave. It is manmade via years of excavation. The cavern was first excavated in the 1930's for limestone to build roads and bridges as a result of Roosevelt's New Deal programs. Excavation continued for more than forty years to create 17 miles of underground tunnels and passageways. Today the cavern is used as a secure, temperature controlled storage facility for more than 17 local companies. One manufacturing company is located underground in the cavern. By tonnage, it is the largest recycling center in Kentucky. Demolition and construction concrete, brick, rock, and dirt are used to pave the floor and roadways in the cavern. Other "green" features of the cavern include: energy consumption that is 75-85% less than other above ground storage warehouses, motion detector lighting which stays off unless areas are in use, and air circulation from natural air pressure phenomena which provides ventilation for the cavern. We enjoyed an interesting tour of an innovative, local, environmentally responsible landmark.

VICKIE SAMMONS PRESENTED WITH RACHEL DAVIS AWARD



At our September meeting, Vickie was presented with the Rachael Davis Award Lifetime Achievement Award for having publicly demonstrated commitment to the Chapter and its mission. Many thanks go out to Vickie for her years as KCHMM Treasurer and ambassador!

FEATURE ARTICLE - SOMETIMES, THE OBVIOUS ISN'T

Submitted by Bruce Gaylord, CHMM

On a pleasant morning, this past July, while returning to my office from a production meeting, it was brought to my attention that there were deposits of some sort on all of the employees' automobiles. Sure enough, material had apparently been deposited on the cars, all of the car. There were streaks, 2 inches long and at the end of some of the streaks, little balls of material adhered to the vehicle surfaces. The streaks tended to be towards the southeast. The little balls were hard and granular. The balls were about a quarter the size of a pencil eraser. They were brown in color but tended to have a yellow, nearly sulfur appearance.

My plant does not emit anything remotely similar to the deposits. If anything, we possibly could emit some dust, if we ever had an upset condition. If you stood in the parking lot, and looked in the direction of the streak striations, you see the stack of LG&E's Cane Run Power Plant. Since there are only a couple potential sources of particulate emissions, only one, in my mind fell into the category of being the potential source.

I contacted the air district to see if any malfunctions had been called in, none. I then tried to contact a person I knew at LG&E but that person was on vacation, so I left a message about what had occurred. I contacted the compliance group at the air district and reported what had occurred. That afternoon, district personnel arrived and took samples and photos. The next day, LG&E personnel arrived. We had had another occurrence of deposition on the autos. They too took samples and photographs. This time, some of the little balls felt damp rather than like fine grain sand of the day earlier.

Like all good lab analysis, testing took time. Deposits continued to show up daily but were becoming less in quantity. The streaks and the little balls of material were extremely hard to have washed from the car surfaces. In fact, upon close examination, it appeared that the material was attacking the clear coat or at least the wax over the finish. This is indicative of a caustic or acidic deposit. There were employees, who had just purchased new vehicles, and they were very unhappy campers about what had happened to their cars.

LG&E had the first analytical results, they showed organic material. Not anything indicative of combustion (...the samples of the yellow/rust colored materials deposited in your parking lot. The lab has concluded that the yellow particulate is natural/biological in nature consistent with a protein, while the rust colored particulate is crustal material (soil). The analyses did not identify any calcium or sodium that might suggest a scrubber-related particulate...).

The personnel from the air district were also having problems determining the source of this mysterious deposit. Until, one day, one of the APCD employees was leaving work and noticed the same deposits on the autos at 850 Barret Avenue. This is a long way from Riverport. More samples were taken, more tests were ran and literature research was undertaken.

The findings for the cause of the deposits were "Dragon Flies". Due to the drought, bodies of water were not available for the insect to lay their eggs. To the eye of the Dragon Fly, a shine of an automobile finish was similar to that of a water surface. The basic goal of this insect is to

Continued on page 8....

FEATURE ARTICLE - SOMETIMES, THE OBVIOUS ISN'T (CONTINUED)

...continued from Page 7

reproduce and bring forth the next generation of their specie. They apparently fly over the water and drag their ovipositor across the surface of the water. This caused the streaks on the autos. If the surface of the auto was a little steep, then the freshly laid eggs would conform to the law of gravity and roll down grade, thus the little balls of material.

When the air district personnel notified me of their findings, I remembered that there had been a lot of dragon flies around the plant. I remember the great Yellow dust event that was pine pollen, the fish odor that was a leaking tank car that was being pulled through the city by a locomotive and the offensive odor, throughout the city, that was concurrent to the mating season of our native skunk population. But in all my years in the environmental field, I had never heard of the dragon fly mating frenzy that resulted in deposits on automobiles. Though I have not pursued the matter further, apparently, this happening has been written up before.

I did apologize to LG&E personnel for jumping to an “obvious” conclusion.

The Air Pollution and Control District analysis of the material is included on the following page.

August 9, 2012

This report summarizes the collection and analysis of surface samples collected by the Air Pollution Control District of Jefferson County and LG&E Cane Run, in response to a complaint of an unknown yellow substance observed on several vehicles.





Map of Sampling Locations



APCD Sample Collection Method

APCD collected one bulk and three surface samples from two vehicles at this location using an adhesive tape lift media, by pressing the tape lift onto the soiled area then removing from the surface. Once each sample has been collected, the soiled deposition is transferred to the tacky surface and retained on the sampler which allows the substance to be examined in an as-collected manner.

APCD Sample Collection Summary

Sample Collection	Sample ID Number	Surface Sample
7301 Logistics Dr. June 11, 2012	120711-AA SUV Rear Window	
7301 Logistics Dr. June 11, 2012	120711-BB SUV Hood	
7301 Logistics Dr. June 11, 2012	120711-CC Car Rear Window	
7301 Logistics Dr. June 11, 2012	120711-DD Car Hood Bulk	

LG&E Sample Collection Summary

- Four (4) surface strip samples and 1 tape lift sample were submitted to identify the yellow particulate.
- The 5 samples were imaged using a Keyence optical microscope to document the physical characteristics of the particles.
- To date, 3 of the samples were examined in the SEM:
 - Republic Conduit Parking Lot Surface Strip collected from a car (112S20011)
 - Republic Conduit Parking Lot Surface Strip collected from a car (112S20043)
 - Tape lift from the Republic Conduit in house sample parking lot car (RC71112)
- Backscattered electron images and energy dispersive spectra (EDS) were acquired in the SEM of particles re-located from the optical images.
- FTIR was conducted on one cluster of the yellow material of interest collected on the CR Utility Truck CR Parking Lot surface strip (112S2009).

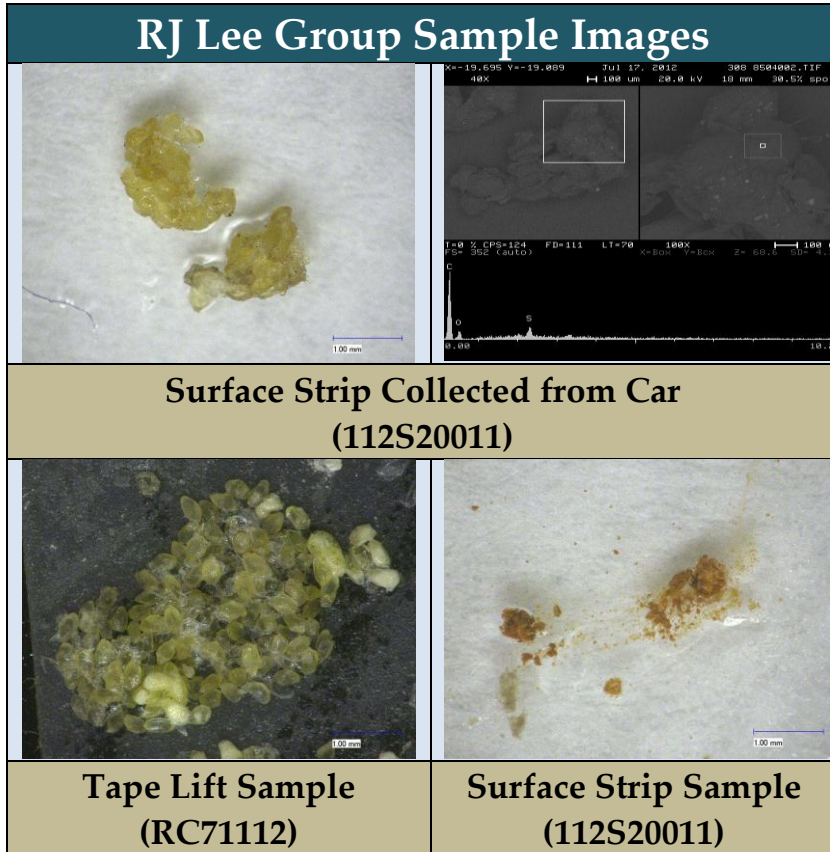
LG&E Sample Collection Method

Due to the close proximity of the complaint, LG&E Cane Run personnel also collected samples in a similar manner from the area and submitted them to RJ Lee Group for identification of the yellow substance.

August 9, 2012

LG&E Sample Results

Sample Analysis Results



The sample analysis performed by RJ Lee Group indicates the structural and chemical characteristics of the yellow material were consistent among all of the samples with a biological material. Elemental analysis identified the material as carbonaceous with trace amounts of phosphorous, sulfur, chlorine and potassium. Particles of aluminum and silicon were also identified as being consistent with earth crustal material (soil).

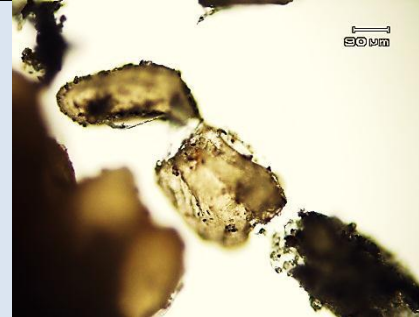
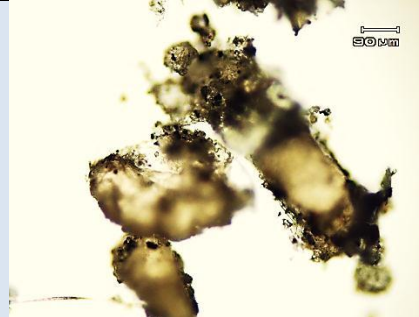
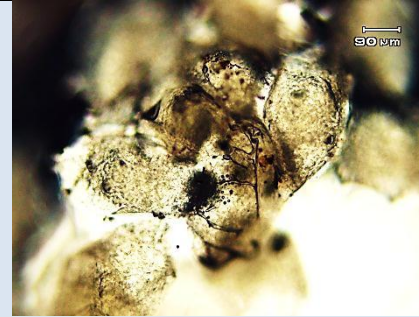
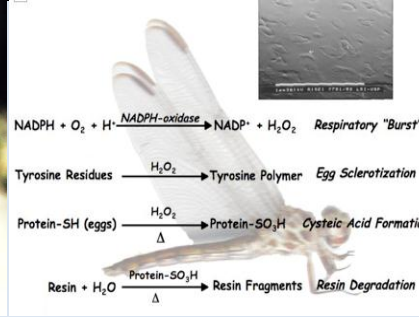
Infrared spectroscopy analysis (FTIR), which identifies the chemical bonds in molecules, established that the yellow particulate was consistent with a protein and polyamide. The FTIR analysis categorized the yellow particulate as being a natural biological material.

Sample Analysis Summary

The majority of the material from the vehicles was analyzed as biological, with small amounts of soil mixed in. The results indicated that the material could not have come from LG&E's site or processes.

August 9, 2012

APCD Sample Results

Surface Sample Micrographs	
	
120711-AA (40X)	120711-BB (40X)
	
120711-CC (40X)	Dragonfly Egg Chemistry

Sample Analysis Results

The sample analysis revealed a yellow substance with crystalline properties and components of carbon and sulfur. The majority of the yellow substance was consistent to that of a protein, biological in nature and identified as dragonfly eggs.

Sample Result Discussion

Dragonfly eggs are surrounded by a protein amino acid (cysteine) and oxidized by hydrogen peroxide to form cysteic acid. Once formed, the cysteic acid absorbs onto the polymer (resin) of the vehicles clear coating, leaving behind evidence of the dragonfly eggs.

Sample Analysis Summary

Dragonflies are attracted to and lay eggs on smooth surfaces that reflect the sunlight (polarized light), simulating a water mirror, such as cars in parking lots. Dragonflies that mistake cars for bodies of water will proceed to make territories, find mates and lay eggs.

The dragonfly lays eggs by bouncing up and down on the hood of a vehicle, as she would in a pond. This results in piles of eggs or a streaking pattern of eggs on your vehicle.

These results confirm that the yellow substance is identified as biological in nature and not the result of activities or processes associated with any specific site.