Capaccio Enviro Line

Environmental. Health and Safety Consulting and Engineering Services

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TRAIL BLAZER

"Sustainability" is a hot topic these days in the general public, environmental groups, industry, and others. For many of us, sustainability practices have been the norm for quite some time, albeit under different names such as waste minimization, source reduction, pollution prevention, reduce-reuse-recycle, green products and manufacturing, conservation, product stewardship, social responsibility, corporate citizenship, EH&S leadership, and other best management practices. Nonetheless, the term sustainability more fully encompasses the bigger picture of sustainable business practices.

With the current state of the economy, sustainability has come to the forefront for many of our clients as an important business risk management practice. In addition to improved environmental, health and safety performance, sustainable practices result in better financial performance through operational cost reductions and creating a competitive advantage in meeting important stakeholder demands. Investors, customers, and consumers are increasingly demanding sustainable practices in environmental, health and safety as a condition of doing business.

At CAPACCIO, sustainability is integral to our mission of "helping industry and the environment prosper". We help our clients sustain long-term growth and prosperity by identifying and implementing environmental, occupational safety and health practices and engineering solutions that reduce costs, improve performance, enhance productivity, and ensure competitiveness in a global economy.

Prior to the design of treatment systems, our engineers routinely assess process and facility opportunities for minimizing pollutant generation and conserving water and energy, thereby maximizing performance and reducing costs.

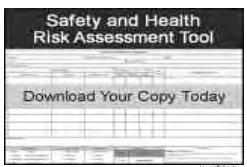
In addition to providing traditional EH&S support, we assist our clients in developing internal and external EH&S performance metrics that are integrated into their overall business strategy. We do this in a variety of ways including preparing reports for stakeholders, establishing effective EH&S management systems and programs, establishing and implementing systems to effectively meet current and evolving product materials content restrictions, keeping current with ever evolving legislation and industry standards, and through strategic EH&S planning to maintain a competitive position in the global marketplace.

We welcome the opportunity to show you how our "sustainability services" can help your company prosper.

Lisa Wilk

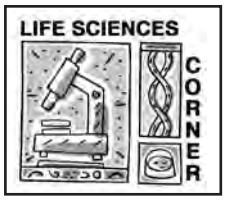
Regulatory Reminders

- ✔ Massachusetts TURA Form S Reports — July 1
- ✔ Federal EPCRA 313 Form R Reports — July 1
- ✔ Federal DOT Registration — July 1



Now Available for download... CAPACCIO's Safety and Health Risk Assessment Tool! Log on to www.capaccio.com to get yours today!

In This Issue



EPA Proposes to Add Pharmaceuticals to Universal Waste Rule

On December 2, 2008, the United States Environmental Protection Agency (EPA) proposed to add hazardous pharmaceutical wastes to the list of materials covered under its existing Universal Waste Rule. Because hazardous pharmaceutical wastes are generated by a number of different entities (pharmacies, hospitals, physicians' offices, dentists' offices, outpatient care centers, ambulatory health care services, residential care facilities, veterinary clinics, and reverse distributors) very often in small amounts, the EPA is seeking to facilitate the management of pharmaceutical waste by streamlining generator requirements with this proposed rule. In addition, it is EPA's hope that this effort will encourage "take back programs" by removing RCRA barriers in the collection of pharmaceutical wastes from health care and other such facilities.

Currently, pharmaceutical wastes that are either listed by EPA or display one or more of four characteristics (ignitability, corrosivity, reactivity, toxicity) are subject to the hazardous waste management requirements of the EPA's Resource Conservation Recovery Act (RCRA) regulations – and state regulations for states that are authorized by EPA to manage the hazardous waste management program.

Under the Universal Waste Rule, pharmaceutical waste can be collected in labeled containers for up to one year and shipped to a disposal facility using a bill of lading rather than a hazardous waste manifest.

The proposal clearly indicates that hazardous pharmaceutical wastes that are also controlled substances are to be managed by the requirements of the Drug Enforcement Agency's regulations under the Controlled Substances Act. In addition, those that are also radioactive wastes and mixed (nuclear and hazardous waste) are to be managed under the requirements for radioactive wastes and nuclear wastes. These wastes would therefore not be considered Universal Wastes.

If finalized, the EPA's rule must be implemented by the authorized state to be valid.

The comment period on this proposed rule ended on March 4, 2009. At this time there is no expected date for finalization of this proposed rule.

For a comprehensive definition of "pharmaceutical" waste, consult the Federal Register dated Tuesday, December 2, 2008 Vol. 73 No. 232.

For more information, please contact Linda Swift at 508.970.0033 ext. 119 or Email lswift@capaccio.com.

Update: MassDEP's Proposed New Storm Water Regulations 314 CMR 21.00

On November 17, 2008, the Massachusetts Department of Environmental Protection (MassDEP) gave notice of its proposed new storm water regulations. The proposed regulations would establish a statewide general permit program aimed at controlling the discharge of storm water runoff from certain privately-owned sites containing large impervious surfaces. The proposed regulations would require private owners of land containing five or more acres of impervious surfaces to:

1. Apply for and obtain coverage under a general permit;

2. Implement nonstructural best management practices (BMPs) for managing storm water;

3. Install low impact development (LID) techniques and structural storm water BMPs at sites undergoing development or redevelopment; and

4. Submit annual compliance certifications to the Department.

The proposed regulations are available at the MassDEP website at **http://www.mass.gov/dep/**. Pursuant to M.G.L. chapter 21, sections 26 through 53, MassDEP has tentatively determined to issue, and has prepared, a draft Regulated Impervious Area General Storm Water Permit. A copy of this permit, and the accompanying fact sheet, can also be found on the MassDEP website.

On March 11, 2009, MassDEP closed the public comment period for the proposed regulations and permit. MassDEP received comments from over 120 individuals, businesses, and trade organizations. While many comments expressed support for regulatory-driven improvements to storm water management focused on reducing nutrient loads to surface waters, most highlighted obstacles expected to impact successful implementation of the program as proposed. Specifically, the cost to the regulated community was often metioned, as was the potential contractual issues related to aggregation of lots. Other concerns cited related to thresholds for redevelopment triggers, and clarification of various definitions critical to interpretation of the regulations (e.g., contiguous lots, green roofs).

MassDEP is currently reviewing the comments received and anticipates issuing a revised permit and regulations later this year.

For more information, please contact Chris Walton at 508.970.0033 ext. 139 or Email cwalton@capaccio.com.

Energy Saving Opportunities

With spring here, and summer on the horizon, there is a good chance that gasoline prices could spiral out of control again. With that in mind, now is a good time to consider some energy saving ideas that could put your facility in a better position the next time costs begin to escalate.

Exit Signs

How often do we think of the energy that exit signs consume? Considering these lighted signs are on *all the time*, it is a good time to start thinking about them. Consider this, assuming typical New England rates, an incandescent exit sign consumes about $28/yr in electricity. Compare that to a fluorescent sign that consumes about $11/yr or an LED "Light Emitting Diode" exit sign that uses approximately $4/yr in electricity[ii]. Or, if you really want to maximize your savings, a recent technology that is making an impact is the "Light Emitting Capacitor" or LEC. This exit sign costs about 25¢/yr[iii] to operate! Most utility companies also offer incentives to replace exit signs, some paying up to 50% of the installed cost. When energy savings and incentives are factored in, replacing exit signs should have a payback in less than 2 years.

Fluorescent Lighting

Fluorescent lighting technologies are changing so fast that even if you upgraded your lighting just a few years ago, it may be time to take another look.

Fixtures – Many existing fixtures can be fitted with internal reflectors for greater lighting output. Also, by replacing acrylic diffusers with parabolic lenses, you can reduce glare and gain better light output.

Ballasts – Electronic ballasts operate 20% more efficiently than magnetic ballasts. There is also a new generation of "high efficiency" electronic ballasts available that are 8% more efficient than standard electronic ballasts[iv].

Bulbs – Watt for watt, T-8 bulbs are about 38% more efficient than T-12 bulbs[v]. T-5 bulbs are also gaining popularity, as these 28-watt bulbs provide about the same light output as a 32-watt T-8 bulb, amounting to about 10% better efficiency.

Fewer Bulbs – Changing to newer technology bulbs, ballasts, reflectors, and lenses may enable your fixtures to be de-lamped therefore using fewer bulbs for the same or better lumen output.

Compact Fluorescent Lighting (CFL)

You may already be using these at home, but think about those table lamps and office task lights around your facility. You could be using 75%[v] less power in each of them if the bulbs were changed from incandescent to CFL. Replacing one 100-watt incandescent with one 28-watt CFL bulb will save about $68 in electric costs annually. Remember though, since CFL bulbs do contain a small amount of mercury (up to 4 milligrams)[vi], always check on proper disposal.

Light Emitting Diode (LED) Lighting

Recent advances in the light output and available color spectrum of these solid state lights are making LED lighting an attractive alternative to more traditional lighting technologies such as incandescent or fluorescent lighting. LED lighting uses about 85% less energy than incandescent lighting, and about 50% less energy than fluorescent lighting. In addition, LED lighting is expected to last 20-50 times longer than incandescent and about 5 times longer than fluorescent. While LED fixtures and bulbs will require a larger up front investment than traditional lighting technologies, their better efficiency and longer life may result in a reasonable payback. EnergySTAR® has begun certifying LED lighting products beginning in 2008 and they expect the list of approved bulbs and fixtures to grow rapidly over the next year.

Exterior and Parking Lot Lighting

Technology in exterior lighting is also changing rapidly. New "High Output" high pressure sodium lamps are about 20% more efficient than standard high pressure sodium lamps[viii]. Additionally, LED and solar lighting are emerging technologies that show lots of promise.

Computers

Does your facility have a policy regarding sleep mode settings or a mandate that computers are to be shut off at the end of the work day? When you consider that one CRT monitor uses about the same energy as a 100-watt bulb, this one small change will help curb some of your energy costs.

Windows

Most facilities have at least a few windows, if not many. If replacing windows with a more energy efficient window is not an option, consider applying Low-Emissivity (Low-E) window film. A good quality Low-E film can reject up to 79% of the heat that would ordinarily come in through a window exposed to direct sunlight during the cooling season. This equates to a savings of about 1 ton of air conditioning for every 100 sq. ft. of glass. Consequently, in the heating season, the film keeps the heat in as it reflects up to 30% of the building's heat.

Utility Rebates

Remember to check with your utility suppliers for potential rebates or low (or no) interest financing.

For more information, please contact Wayne Bates at 508.970.0033 ext. 121 or Email wbates@capaccio.com.

[i] Energy Star, [ii] Green Torch, [iii] Universal Lighting, Technologies, [iv] GE Lighting, [v] Energy Star, [vi] Energy Star, [vii] GE Lighting

Discontinuation of EPA's National Environmental Performance Track Program

In 2000, the Environmental Protection Agency (EPA) created a program called the National Environmental Performance Track Program to encourage, recognize and drive environmental excellence by inspiring facilities with strong environmental records to go above and beyond their legal requirements. Members of the program, over 500 in all which include major corporations, small businesses, and public facilities, typically set four public, measurable goals to improve the overall quality of air, water, and land. Performance reports and renewal applications were due annually and members enjoyed benefits that included the status of a low priority for routine inspections by the EPA, public recognition and other regulatory and administrative benefits.

On March 16, 2009, EPA Administrator Lisa P. Jackson directed the EPA to halt the program "in order to reflect on Performance Track's achievements and opportunities for improvements," further adding that "Performance Track was developed in a different era and may not speak to today's challenges."

The EPA has begun initiating the close-out process of the Performance Track program which has included documenting member achievements and archiving performance data. Communication of the program will also be discontinued, however, the Performance Track Hotline and P-Track Online will be maintained to answer questions from the public for a period of time. The public will be informed prior to shutdown of the hotline and the online resource.

Performance Track members may continue to display their certificates and awards earned through the program, but should no longer refer to themselves as program "members." Members no longer need to submit their 2008 Annual Performance reports to EPA, and the incentives associated with being a member have been discontinued. The status that members enjoyed of being a low priority for routine inspection by the EPA has been ceased as well. Additionally, new members will not be accepted into the program, however, Performance Track will release a final progress report to share 2007 Annual Performance Reports with the public.

The Performance Track website will continue to be updated with items related to the close-out of the program and will be maintained for a period of time to ensure that the public continues to have access to data and accomplishments of companies who participated. Updated items related to Performance Track can be found here: **http://www.epa.gov/performancetrack/.**

For more information, please contact Lisa Wilk at 508.970.0033 ext. 112 or Email lwilk@capaccio.com.

EPA Proposes Mandatory Greenhouse Gas Reporting Rule

The Environmental Protection Agency (EPA) published a proposed mandatory greenhouse gas (GHG) reporting rule on April 10, 2009 (Federal Register Vol. 74, No. 68). The following GHGs are defined in the rule: carbon dioxide (CO2), methane (CH4), nitrous oxide (N20), sulfur hexafluoride (SF6), hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs), and perfluorocarbons.

The rule requires identified source categories, those facilities that emit 25,000 metric tons or more of GHG per year, and suppliers of fossil fuels and industrial chemicals, to report their annual GHG emissions to the EPA. The source categories include 20 energy intensive and known GHG using production facilities, which include: cement production, iron and steel production, electricity production, electronics manufacturing, wastewater treatment, and municipal landfills.

The first reports are to be submitted to the EPA in 2011 for reporting of calendar year 2010 emissions. GHG emissions will be reported as carbon dioxide equivalents (CO2e), which is a method of expressing the emissions of different GHG as an equivalent amount of CO2 that would have the same global warming potential as one metric ton of that GHG.

For more information on the proposed rule visit the EPA's following website: **http://www.epa.gov/climatechange/emissions/ghgrulemaking.html.**

The EPA has also published a series of technical support documents for identified reporting sources: **http://www.epa.gov/climatechange/emissions/ghg_tsd.html.**

For more information, please contact David Cotter at 508.970.0033 ext. 133 or Email dcotter@capaccio.com.

Bob Capaccio is honored and roasted at retirement party

In 1992, Bob Capaccio founded Capaccio Environmental Engineering, Inc. and we are forever grateful! The company began with Bob as the only employee and grew quickly to include new Owner/CEO Lisa Wilk and Vice President, Lucy Servidio.

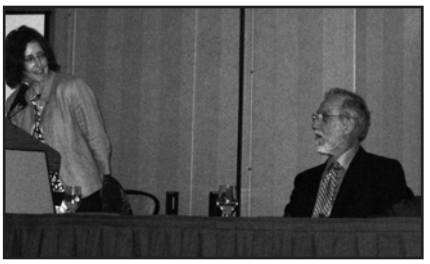
At Bob's official Retirement Party on April 30, both Lisa and Lucy fittingly provided roasts, which generated lots of laughter from the invitees which included current and former colleagues, close friends and even Bob's first boss, George Krusen.

CAPACCIO now employs 30 people and its offices have since moved three times. From the initial space in Sudbury, to the first floor location in Marlborough, to our new larger office space on the second floor, CAPACCIO continues to grow, thanks to Bob's guidance over the years. We'll never forget Bob's leadership, expertise and sense of humor as well as his love of cars, cats, the environment and the field of engineering.

At the conclusion of the evening, Lisa Wilk was pleased to announce that CAPACCIO has created a scholarship in Bob's honor. The "Robert S. Capaccio Engineering Scholarship" will be awarded annually and provides scholarship monies to a deserving Marlborough High School senior who plans to pursue a career in engineering.

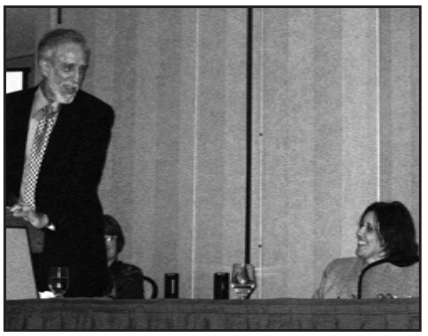
Also providing roasts were Bob's first boss, George Krusen, close friend Ron White, and client Bobby Young of Millipore. All provided a different insight into Bob and his many adventures over the years.

We thank Bob for not only building a great foundation, but for also creating a mission that we all believe in and aspire to everyday: "Helping Industry and the Environment Prosper." We wish Bob all the best in his retirement!



Lisa Wilk jokes with Bob about the early days at CAPACCIO.

Lucy Servidio takes the audience for a ride through the early days of advertising (in her car, not his).



Bob teases Lisa Wilk about taking over the company.

Bob thanks everyone for coming.

George Krusen provides a look into Bob's days as a young engineer.

INSIDE CAPACCIO

Movin' On In - Geoffrey J. Gilbert

CAPACCIO welcomes Geoffrey Gilbert who joins our Safety and Health Services Group as Senior Environmental, Health and Safety (EH&S) Scientist. Geoff will be responsible for the evaluation, development, and successful implementation of health and safety systems, programs, procedures and trainings. Goeff brings more than ten years of experience in the EH&S field as a consultant providing versatile on-site resources to clients in the construction, biotech, pharmaceutical, semiconductor and general industry sectors. Prior to joining CAPACCIO, Geoff served as Senior Project Scientist at EBI Consulting where he assisted clients with the implementation, management and sustainability of their EH&S programs. He holds a B.S. in Occupational Safety Studies from Keene State College and is a member of American Biological Safety Association. Geoff is an avid musician who plays guitar, piano and sings.

Movin' On In - Jill Seifert Vernes

Welcome to Jill Seifert Vernes who joins CAPACCIO as an Environmental Scientist. Jill comes to CAPACCIO with more than twelve years experience providing environmental consulting services to manufacturing, municipal and industrial clients in several states. At CAPACCIO, Jill will be responsible for implementing environmental compliance, site assessment and remediation services, as well as preparing air emission calculations and regulatory reporting. Prior to joining CAPACCIO, she was a Project Geologist with Delta Consultants where she managed a variety environmental assessment and remediation projects. Jill holds a B.A. in Philosophy and an M.S. in Earth Sciences from Dartmouth College and is a member of the National Ground Water Association. She is an avid gardener and is looking forward to planting tomatoes and jalapenos and making home-made salsa this summer.

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