

Avogadro Advisor

Editor:
Hannah
Azzalina

Avogadro Environmental Corporation gets Interim Source Testing Accreditation from STAC along with QSTI Certification of Individuals

INSIDE THIS ISSUE:

NJDEP Office of Dispute Resolution: Now Open for Business 2

Potential Revisions to New Jersey Emission Statement Rule 3

Employee of the Quarter 3

Energy Management Systems: ISO 50001 Standard - Raising the Role of Energy Management for Stewardship & Economic Survival 4

How to Establish an Effective Safety Committee 5

Avogadro Career Advancements 6

Press Release—Easton, PA

Avogadro Environmental Corporation (Avogadro) is a full-service Environmental, Health and Safety consulting and testing firm, headquartered in Easton, Pennsylvania. Our experience in testing, monitoring, permitting and reporting emission data puts Avogadro at the leading edge of regulatory knowledge and compliance familiarity.

On June 11, 2010, EPA published proposed revisions to the Acid Rain Regulations in 40 CFR, Part 75. These revised regulations will require that all Relative Accuracy Test Audits (RATA's) performed on Continuous Emission Monitoring Systems (CEMS) have, through an accreditation program, a Certified Individual present. The regulations take effect January 2011. [Becoming accredited](#) provides assurance to both clients and regulatory authorities that a stack testing com-



pany is providing them with accurate, reliable data.

To meet our customer's regulatory requirements, three more testing professionals recently became Qualified Source Testing Individual (QSTI) certified members. Avogadro now has nine QSTI-certified professionals representing management, project/field team management, and field testing scientists throughout the company. The Stack Accreditation Council (STAC) also recently recognized Avogadro as only one of eleven organizations nationwide to attain interim accreditation. The accreditation demonstrates that a quality policy and system are documented via a quality manual and employed to achieve performance and data quality objectives in the delivery of air emissions testing services.



Continued on Page 2



Continued from Front Page

These are delivered in accordance with standards in ASTM D 7036-04 "Standard Practice for Competence of Air Emission Testing Bodies".

These changes to regulatory oversight have been a driving force behind our certification efforts. Positioned at the center of the most concentrated electric generation marketplace covered by the Acid Rain regulations, Avogadro continues to demonstrate leadership and readiness to meet the changing needs of industry and to protect air quality.

For more information on these topics, regulatory issues, testing/monitoring issues, please call Avogadro Environmental Corporation at 610-559-8776 xt.103 and ask for Tom Mattei. Or email us at cs@avogadro.net.

Employee of the Quarter



Executive Administrator

Jill Greene has been selected as our Employee of the Quarter. Jill performed many of the HR and Office Management functions while our Office Manager was out on maternity leave. She facilitated the transition from one medical carrier to another in June and finalized several outstanding management projects during the 3rd quarter.

Jill's positive attitude, team work, and dedication are greatly appreciated.

NJDEP Office of Dispute Resolution: Now Open for Business

Author: Hannah Azzalina

The New Jersey Department of Environmental Protection (NJDEP) has recently put into effect an Office of Dispute Resolution. The Office of Dispute Resolution has been established to help resolve conflicts between NJDEP and the regulated business community in order to avoid legal conflicts.

Dispute resolution is a technique used to mediate disputes and help to facilitate solutions between parties; in this case between NJDEP and the business community. NJDEP decisions regarding permits or enforcement actions can often trigger appeals. These appeals are usually in the form of a request for a hearing by the Office of Administrative Law. The appeals process can be quite slow, so it the Department's hope that the Office of Dispute Resolution will be able to resolve many of these appeals without going to court.

The Office of Dispute Resolution is prepared to mediate disputes concerning water and land use permitting, compliance issues,

penalty assessments and alleged failures to comply with permit conditions. It is important to note that this new office cannot mediate challenges to DEP rules, regulations or policies, nor can it mediate disputes between private parties.

Commissioner, Bob Martin, is hoping that the implementation of the Office of Dispute Resolution will help to eliminate the barrier that exists between NJDEP and New Jersey businesses, while continuing to protect our environment.



Potential Revisions to New Jersey Emission Statement Rule

Author: Heidi Fleming

At the September Industrial Stakeholders Group (ISG) meeting, NJDEP presented some possible revisions to the Emission Statement rule (N.J.A.C. 7:27-21). The reasons for these revisions include updating the rule to meet federal requirements, fixing errors, finding ways to make the data more useful, and updating language to be more consistent with other regulations.

Revisions that had already been proposed but not yet adopted include requiring PM2.5, Ammonia and toxic air pollutants (TAPs) to be reported at the source level, not the facility level.

Additional revisions being considered include: reporting PM condensable, PM10 filterable, and PM2.5 filterable; removing references to paper submittals; removing 1-month extensions; deleting references for before 2003, 2005; deleting the requirement of facility coordinates; and if the above mentioned revision for reporting TAPs is changed to source level, then the applicability could be also changed to source level instead of facility level, to be consistent with permitting.

There are also over a dozen instances where revisions include updating language and/or definitions to be consistent with other regulations.

For more information, the NJDEP presentation is located here: <http://www.nj.gov/dep/agpp/downloads/isg/Sub21Revisions.ppt>. If you would like to comment on these proposed revisions, send any comments in an email to emis_statement@dep.state.nj.us by December 1, 2010.

If you need assistance completing your 2010 Emission Statement, Avogadro can help!

Please contact Hannah Azzalina or Heidi Fleming at 610-55-8776.

Emission Statement Due Dates:

NJ Emission Statements: May 15, 2011

PA Emission Statements: March 1, 2011

CT Emission Statements: March 1, 2011

OH Emission Statements: April 15, 2011

Top 10 Green Colleges in the United States:

- 1) College of the Atlantic, Bay Harbor, MN
- 2) Warren Wilson College, Swannanoa, NC
- 3) Evergreen State College, Olympia, WA
- 4) Oberlin College in Oberlin, OH
- 5) Middlebury College, Middlebury VT

- 6) Berea College, Berea, KY
- 7) University of California (All Campuses)
- 8) Harvard, Cambridge, MA
- 9) Duke University, Durham, NC
- 10) California State University, Chico, CA



Energy Management Systems: ISO 50001 Standard - Raising the Role of Energy Management for Stewardship & Economic Survival

Author: William Barnes, PE – Manager of Consulting Engineering, Avogadro Environmental Corporation

On September 16th, Bill Barnes of Avogadro offered a presentation on the role of Energy Management Systems in managing business risk and environmental impacts at the Greater Lehigh Valley Chamber of Commerce (GLVCC) fourth annual environmental innovations conference. The conference provided a showcase of locally grown technologies and integrating partners for energy conservation, management and source alternatives. The Environmental and Energy Sub-Committee of the GLVCC (which Bill is a member of) combined efforts into a single annual event recognizing the convergence of environmental and energy efficiency initiatives. Forward thinking companies and those looking to survive the economic challenges of this new decade explored sustainable solutions that can benefit the environment and community and lower your bottom line.

With the recent enactment of the Greenhouse Gas Mandatory Reporting Rule (GHG MRR) by the USEPA, many industrial sources of air emissions of GHG are now required to report releases, primarily as a result of direct and indirect use of fossil fuels. Even more, this opens the door to EPA promulgating regulations for the permitting of sources of GHG using existing Clean Air Act programs such as New Source Review (NSR). As a means of establishing Maximum Achievable Control Technologies (MACT) for sources soon to be subject to permitting, it has been suggested that affected sources demonstrate means to achieve reductions in their energy intensity as a MACT demonstration.

Consider that over 180 institutional investors managing more than \$13 trillion in assets have reached out to Congress to help create a stable environment for long term investing through a GHG cap and trade program. Consider that the US Government has already committed \$117 billion in stimulus funding to energy efficiency and GHG reduction technologies.

Sparked by the GHG MRR, SEC guidelines and expanded interest in Voluntary Disclosure programs, corporate America has now progressed into an effort of diligently and seriously accounting for and managing the material risk of your activities. You say you don't have significant GHG emissions. What are the material risks of climate change on your operations? Availability of natural resources, sustainability of your suppliers, changes to the business world and marketplace, and other factors still impact your ability to put product to market profitably and suddenly it's your business.

This adds to the list of newly realized and much publicized corporate drivers for the reduction of energy use. Before the GHG MRR, there were voluntary programs for GHG inventory reporting to raise visibility of energy use in manufacturing and power generating industries. Carbon Footprint management has quickly been spotlighted as a must in the eyes of the investment community. De-regulation in Pennsylvania and elsewhere over the past several years has resulted in steep increases in the cost of energy and ultimately the cost of doing business in America. This all gets tied in to Sustainability Reporting for corporate America – protecting the economy, the environment and local communities in the course of business. As a result, energy use and management has risen from the occasional spreadsheet report from facilities maintenance and engineering supervisors to being a core corporate. Key Performance Indicator (KPI), even establishing new roles like Energy Manager in many companies.

Yes, all of this drives new business innovations. New techniques and tools for conducting energy audits are all over the Internet now, and even utilities are being driven to push energy efficiency measures to their large corporate and industrial consumers as a solution pathway versus construction of new generating capacity. LEED certification of new and retrofitted commercial, industrial and institutional building designs and construction have proven out a wide variety of new building materials, lighting systems, and rooftop gardens as effective means to lower the carbon footprint and energy intensity in high-rise offices, hospitals, factories, and even schools.

Organizations with environmental management systems (EMS) certified to international standards such as ISO 14001 are now demonstrating continual improvement and pollution prevention through energy related advancements and innovations. As a certified EMS auditor, I'm seeing these projects more and more as the new measures of continual improvement, in large part because they get corporate attention. In the 70's and 80's, the Total Quality Management (TQM) movement drove reduction in scraps and rejects through Quality Management Systems (QMS) through certified ISO 9001 systems. Whereas in the past, materials reductions or toxicity reductions have dramatically reduced the release of harmful chemicals throughout industrial America, the new currency of improvement and efficiency is energy intensity – the amount of energy needed to obtain and process raw materials into finished consumer goods. This has the potential to affect every conceivable industry sector from cell phones to your dinner plate and everything else consumed in this consumer hungry world (don't forget exploding marketplaces in India and China now).

Continued on page 5



Continued from Page 4

The international systems community has evolved the ISO 50001 Energy Management Systems (EnMS) to provide a framework for management circles to demonstrate energy efficiency aimed at lowering energy intensity.

"ISO 50001 will promote a managed approach to energy efficiency programmes, including key performance indicators (KPIs) to track improvements from a baseline. I predict it will be the 'new quality' for this decade." – Bill Schiel of Invensys – Microsoft Commentary, OnWindows.com, 7 July 2010

Corporate energy managers are now tasked with managing portfolios of energy consuming assets and operations. With the emergence of smart grids, they are enabled to manage consumption in real time to take advantage of price differentials throughout the day to time consumption by energy intensive processes when capacity is available at lower cost. This encourages companies to produce goods and services with less energy overall and to lower costs of doing business at the same time. Yet another industry is emerging providing analytical software that models when to take advantages of capacity and lower costs.

According to a recent ANSI press release, the soon to be released ISO 5001 standard (due in early 2011) provides:

- A framework for integrating energy efficiency into management practices;
- Making better use of existing energy-consuming assets;
- Benchmarking, measuring, documenting, and reporting energy intensity improvements and their projected impact on reductions in greenhouse gas (GHG) emissions;
- Transparency and communication on the management of energy resources;

- Energy management best practices and good energy management behaviors;
- Evaluating and prioritizing the implementation of new energy efficient technologies;
- A framework for promoting energy efficiency throughout the supply chain; and
- Energy management improvements in the context of GHG emission reduction projects.

Another front in the war on energy consumption is sourcing. There are numerous non-carbon and lower carbon footprint opportunities emerging. In the Lehigh Valley alone, Crayola and MARS Chocolate NA have pursued development of solar energy farms at corporate and manufacturing sites. Wind energy has emerged as both distributed energy and feed-to-grid alternatives to Pennsylvania-based industries.

In our business of environmental compliance management at Avogadro Environmental, we have been engaged in a number of activities over the past several years for local enterprises that are serious about changing their energy intensity and their carbon footprint for both stewardship and financial gains. We have seen firsthand, the turn in direction towards these new innovations. Distributed natural gas-fired engines providing combined heat and power (CHP) energy are taking advantage of readily available cheap natural gas as is the case at Warren Hospital in Phillipsburg, PA. Even energy intensive industries like cement are exploring alternative fuel sourcing such as plastic-derived fuel and biogenic fuels such as waste paper and wood to replace coal in kilns. We've been engaged in demonstrating their viability in the marketplace and lesser impact on the environment. Yet other local companies such as NAGSCO offer recovered petroleum oil and vegetable-oil based biodiesel fuel.

For consultation on environmental management systems and energy management systems integration please contact Bill directly at bbarnes@avogadro.net.

How to Establish an Effective Safety Committee

Author: Hannah Azzalina

It has been quoted: "Safety is a full time job, don't make it a part time practice". But in the midst of running a prosperous facility, how does one find time to incorporate safety into everyday routines? The answer: Development and implementation of a facility safety committee. A safety committee is one way to ensure safety is more than a part time practice at your facility.

A safety committee gives companies an opportunity to bring workers and management together to explore health and safety concerns in the workplace. The goal of a safety committee is to promote health and safety standards in the workplace through company policy, activities, inspections and example.

An effective safety committee is structured with bylaws and is operated by appointed officers. The safety committee should have

the support of upper management along with employee representation from every division of the company. Employee representation is key to the effectiveness of a safety committee because it gives employees a chance to voice any concerns they may have about their workplace duties. Employee input allows the committee to explore all health and safety issues throughout the entire company.

Furthermore, if you are a Pennsylvania-based facility, establishing a safety committee can also help to cut costs at your facility. Facilities with safety committees can apply for the PA Workplace Safety Committee (WSC) Certification Program. This program offers a yearly 5% reduction in worker compensation premiums.

Continued on Page 6



Continued from Page 5

Participating facilities must meet certain criteria set out by the WSC Certification Program. The facility's safety committee must be in operation for at least 6 months before applying for the certification program.

Committees must have a minimum of 2 employer and 2 employee representatives. Ideally, all facility operations should have representation within the safety committee. Furthermore, all committee members must be trained by qualified trainers in safety committee operation, hazard inspection and accident investigation. And lastly, committee recordkeeping includes keeping meeting agendas, attendance lists and meeting minutes on file.

If you are a Pennsylvania facility, interested in applying for the WSC Certification Program, logon to www.dli.state.pa.us for application details.

Regardless of the location of your facility, implementing a safety committee is important. Employees need a place to discuss their health and safety concerns. It is important to remember that when such concerns are voiced and corrected, a potential accident is prevented.

Workplace Safety Slogans that you can use to promote safety within your facility:

- It's better to lose one minute in life... than to lose life in a minute.
- A danger foreseen is half avoided.
- Alert today. Alive tomorrow.
- Work safely today and every day.
- Shortcuts cut life short.
- Life did not begin by accident. Don't let it end as one.
- Working without safety is a dead end job.

Avogadro Career Advancements



Executive Administrator

Jill Greene has recently been promoted to Executive Administrator. Jill has been with the company for 2 years and has continued to accept more responsibilities and continues to perform above expectations.

Avogadro thanks Jill for her hard work, dedication and teamwork she has demonstrated over these past two years.



Environmental Scientist II

Hannah Azzalina has recently been promoted to Environmental Scientist II. Hannah has been with Avogadro for three years now and has worked hard to satisfy the criteria to be promoted to this new position where she continues to effectively manage some very important projects with our core client base. This includes work for several clients who have given praise and sound recognition of her efforts.

We congratulates Hannah on these continued efforts to support Avogadro Environmental.



AVOGADRO

Environmental Corporation
1350 Sullivan Trail
Suite A
Easton, PA 18040
610-559-8776
www.avogadro.net
newsletter@avogadro.net

IMPORTANT DATES

- October 1:** Schedule CGA/RATA for CEMS
- October 30:** EER for the 3rd Quarter are due
- January 1:** Schedule CGA/RATA for CEMS
- January 30:** Excess Emissions Reports (EER) for 4th Quarter due



Air Emission Scientist

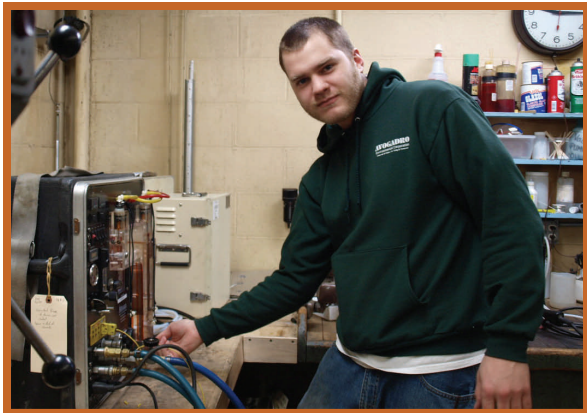
Cory Weiss has recently been promoted to Air Emission Scientist. Corey has done an excellent job of completing his Experience Log and is a true team player at Avogadro Environmental. Furthermore, Cory is always spoken well of by colleagues and clients alike.



Air Quality Scientist

Brittany began as an intern for Avogadro this past summer. Due to her commendable service during her internship, management has decided to offer her a full-time position with the reporting staff. Brittany will be an integral part of the reporting team in preparing test protocols and reports, performing lab work and conducting Method 9 opacity observations.

Avogadro welcomes Brittany as a full-time employee on our team.



Air Emission Scientist

Jordan Davco has recently been promoted to Air Emissions Scientist. Jordan started as an intern in the early summer of 2009. Over the span of 14 or so months, he has become a focused team player in AMT. Most here say he is the "go-to" person when assembling a test team.

This past summer, he completed training in the Source Tester workshop we hosted and passed three sets of tests to become a Qualified Source Test Individual (QSTI). No less important, Jordan has an affinity for equipment repairs. He has assumed much responsibility under Paul Bunn in keeping our sampling equipment organized and mission capable. Additionally, with his skills set in testing, he has grown to be an asset to our organization.

