



in the loop

Ahhh July! With a successful first half of 2013 behind us, it's a good time to look back at our recent accomplishments and staff milestones. We've included short summaries of recently published articles from our experts in food, chemical, industrial, automotive, construction management, and life sciences. You can get the gist and can read the rest on our website.

We've highlighted our growing business in Mexico. We've also focused on how we are sharing our expertise in such topics as energy, semiconductors, and safety. And we hone in on our staff's professional achievements as well as the ways they are contributing to their communities.

New Nissan Assembly Plant: SSOE Continues Growth in Mexico

SSOE recently established operations in Mexico in response to the growth and high demand its clients are experiencing in the region; we also expect to establish a local office and hire local staff in the near future. SSOE has completed nearly 35 projects in Mexico over the past 5 years. One of which is the nearly completed 2.2 million SF assembly plant for Nissan in Aguascalientes, Mexico where we provided planning and design services ranging from schematic design, through permitting, and construction support.

The new facility will produce approximately 175,000 cars per year including the Sentra and Versa, among other models. The assembly plant is due to be completed by the end of fall 2013.

SSOE proposed nearly 40 documented cost saving measures to Nissan, totaling more than \$21 million in project savings. Most of them were recognized during the construction phase. Our recommendations covered diverse aspects of the project—from lighting to parking lots, paving, compressors, and dozens more.

SSOE IN THE NEWS



JASON BECK, Department Manager in SSOE's Santa Clara, CA office, is featured in the Spring issue of *Area Development*. His article **"Managing a Successful Plant Shutdown and Return to Service,"** provides valuable

tips to follow on each of the five phases of a temporary shutdown to assure a favorable outcome. He includes the basics—who should be involved in each stage and the amount of time to allow for completion. In the article, you'll find answers to such questions as how to safeguard against budget-breaking scope creep while allowing for maintenance and repairs that are difficult to execute during full operation mode. Beck's insights about the need to communicate with the rank and file employees, how much to set aside in contingency fees, and what to include in contract language underscore the many aspects of shutdowns that owners need to be aware of.

TO READ THE FULL ARTICLE, [CLICK HERE](#).

**FIND MORE ARTICLE
SUMMARIES INSIDE >**

SSOE IN THE NEWS

(READ THE FULL ARTICLES AT WWW.SSOE.COM/SUMMER2013)



ANDREW KWOK, General Manager of Asian Operations at SSOE, was featured in GlobalAutoIndustry.com's **ASIAtalk** and **CHINAtalk** eJournals. He discusses the benefits of using an engineering, procurement, and construction management (EPCM) model for project delivery in China.

Throughout the article, Kwok supports his viewpoint with relevant case studies.

Having a flexible design process is one advantage because it allows the construction process to move ahead while final internal process design is being completed. Kwok contrasts this with alternate delivery models that require that the internal elements and building shell be clearly defined at the start of construction. This shuts the door on the opportunity to save time and money afforded by a more efficient project schedule.

Kwok points out that the EPCM approach is based on teamwork and shared project goals rather than the potentially adversarial relationship that sometimes develops between the developer / end user and a contractor.



SSOE'S BRENT KAPELSKI, AIA; **LOUISE SCHLATTER**, NCARB, LEED AP BD+C; AND **JAMES YERKE**, PE, CEM were interviewed for *Logistics Management Magazine's* article **"Warehouse / DC Operations: Seven Trends in Sustainable Design."** The article explains that in addition to the well-known advantages of incorporating sustainable features into

warehouses and distribution centers there are lesser-known benefits such as relocation incentives and opportunities to implement renewable energy with no additional project cost.

The article discusses seven sustainable strategies to implement in traditional warehouses. These include saving money on logistics and transportation; energy saving lighting practices; creating a netzero building; recycling, reusing, and repurposing; and tips for regulating temperature in the facility.



SSOE'S JIM OTTE, NICET IV, Data / Fire / Security Specialist is featured in recent issue of *Chemical Processing Magazine*. In **"Safety: Do You Need a Mass Notification System?"**

he explores the potential need for Mass Notification Systems (MNS) in manufacturing facilities. Although current regulations may not require a MNS, these systems merit careful consideration as methods to improve safety.

Otte delivers a comprehensive review of the warning devices and systems available including voice messaging, tone-based systems, visual messaging such as digital signage, automated calling systems, paging systems, interconnection with two-way radios, telephone and cell phone systems, interconnection to computer networks to display pop-up messages on computers, and others. You will read about the varying level of effectiveness of each type of system as well as its other advantages and drawbacks. The article is an excellent starting point in making an informed decision about what system, if any, should be considered in your facility.



SSOE'S JENNIFER MACLEOD, PMP, CCE, CDT, Procurement and Contract Administration Manager, was recently featured in *Construction Executive Magazine*. In **"Maximize Cost Control through Project Planning,"**

MacLeod highlights a number of best practices for project plan implementation that will help keep your project on schedule and within budget.

MacLeod explains that a good project plan is comprehensive and accurately captures the objectives of the stakeholders. In addition, it needs to be a flexible document that the project team reviews and recalibrates frequently in order to maintain ongoing control over the project. To control cost, the plan identifies what resources are needed, at what point, and for how long. Similarly, by translating the project scope into smaller elements using a work breakdown structure, the project manager can better manage the budget.

While MacLeod urges the team to create a comprehensive communication plan, she emphasizes the downside of disseminating too much information to the entire team.



RYAN BEAT, PE, an electrical engineer at SSOE, contributed to the article **“Energy Management: Crunching the Numbers”** that appeared in a recent issue of *Food Engineering Magazine*.

If reducing energy usage is anywhere on your list of priorities, this article is one you will read and save for reference. It starts by presenting tips on how to prepare for and conduct an energy audit. You learn who should participate and what areas and functions to include in the audit.

The article lists specific situations and practices in a manufacturing facility that are commonly responsible for energy loss. Beat points to one—the tendency to send heated water down a drain rather than recapturing the heat for use in another operation.

Various experts drill down into the details of how to use hardware and software to monitor and analyze energy data. While Beat presents low-cost, scalable options for accomplishing this, the article also covers the factors to consider when implementing more sophisticated systems. The article discusses EMS systems in depth, explaining the range of functions even basic ones offer as well as how to integrate them with additional technology to provide advanced functionality.



EVERGREEN EDC COMPLETED TRANSITION TO SSOE GROUP ON JUNE 21st

In January 2013, SSOE announced its merger with Evergreen EDC. On June 21st the transition was completed when the Evergreen EDC name changed to SSOE Group.

Ranked #2 on *Portland Business Journal’s* list of “Top Engineering Firms” (2012), Evergreen EDC joined SSOE as a 315-person firm with five offices throughout the U.S. (Oregon, New York, California, New Mexico, and Arizona). Now operating as a distinct operation within SSOE, the unit has grown to more than 350 people driven by growth in the semiconductor, life sciences, and data center markets.

A majority of operational changes were completed months ago so clients will notice no disruption to daily operations or processes. Maintaining the same great client service and commitment to quality has been and will remain our top priority as the firms formally unite to serve you as SSOE Group.

Changes to be aware of include the conversion of all EEDC employees to SSOE email addresses, proposals, and title blocks for new projects will come from SSOE Group, and all website contents will now be housed at www.ssoe.com.

SSOE Semiconductor Experts to Exhibit at SEMICON West in San Francisco, CA

As a result of its recent merger with Evergreen EDC, SSOE gained deep experience in the semiconductor industry including a history of executing large and small tool ramps, base build design, and retrofit projects. SSOE’s high-tech team has provided design, engineering, and construction management services in complex environments for some of the world’s leading semiconductor manufacturers.

A group of our industry experts will attend SEMICON West July 9–11, the premier event for engineers and manufacturers with expertise in both semiconductor and photovoltaic (PV) manufacturing, to showcase our broad range of services and experience.

To learn more about SSOE’s experience in the semiconductor market, [click here](#).

COMBUSTIBLE DUST LUNCH AND LEARN

Combustible dusts are fine particles that present an explosion hazard when suspended in air in certain conditions. A dust explosion has the potential to cause fires and explosions that could result in deaths, injuries, and even destruction of entire buildings. Preventing these dangerous events is a serious concern for a number of SSOE clients and our own people. In many combustible dust accidents, employers and employees were unaware that a hazard existed.

The primary objective of the Combustible Dust lunch and learn was to raise awareness among SSOE employees about the hazards and help them make sound safety decisions during the engineering and design process. SSOE welcomed client guest attendees to the session. Keeping our clients, our people, and our contractors safe is a Win/Win/Win.

[Click here to visit SSOE’s safety blog.](#)

SSOE PEOPLE

ALL THAT HARD WORK HAS PAID OFF!

Jennifer Breault, RA, NCARB, LEED AP BD+C recently earned her architectural license. She has 13 years of experience and works in SSOE's Toledo, Ohio office.

Loredana Lupu, PHR, earned her certification as a Professional in Human Resources. Lupu joined SSOE as part of the Evergreen EDC merger and works in the Portland, Oregon office.

Jacob Ott, PE, LEED AP BD+C, and **Ryan Prater**, PE, recently received their professional engineering licenses. Ott has eight years of experience and works in SSOE's Nashville, Tennessee office. Prater, based in SSOE's Cincinnati, Ohio office has seven years of experience.

CONGRATULATIONS!

Russ Kinner, PE, was recognized by IEEE for exceptional performance as the U.S. Western Region Treasurer. Kinner is a senior electrical engineer in SSOE's glass / manufacturing division and a member of the IEEE Phoenix chapter.

Andrew Mekus, PE, in our Toledo office was recently named the "Young Engineer of the Year" by the Toledo Chapter of the Society of Professional Engineers. This is the beginning of a streak. SSOE's Adrienne Taylor won this honor last year!

Five employees have recently earned Lean Six Sigma (LSS) Green Belt certifications. **Steve Campbell; Dale Feldhaus; Rick Fox, PMP; Jennifer Hrosko, IIDA;**

and John Stauffer, PMP. In addition to creating \$1.5 million in efficiencies from internal projects, SSOE also completed Lean Six Sigma training for more than 40 staff members.

SSOE recently presented **Jennifer Hrosko**, IIDA, Senior Interior Designer, and **Lance Mushung**, AIA, NCARB, Architect, with Founder's Awards for their exemplary performance on Miamisburg Local School's \$79 million district-wide rebuild project. Their innovative approach and program management resulted in a very successful building program and nearly \$11 million in documented savings.

Zach Platsis, CEM, CMVP, LEED AP O+M, gave a presentation, "Best Practices for Multi-Building / Campus Energy Improvement Programs" at the 2013 Business & Industry's Sustainability and EHS Symposium that took place in March in Cincinnati, Ohio. Platsis is an energy consulting expert in SSOE's Toledo, Ohio office.

NEW HIRES AND RETIRES

SSOE has welcomed more than 50 new employees in 2013. We've also welcomed 6 new Principals and 25 new shareholders—bringing the total number of SSOE shareholders to 183.

In addition, we've also said goodbye to some familiar faces since the new year began. **Terry Bowman, Roger DeGood, Arne Larson, and Tom Thompson** retired with a combined 141 years of service to SSOE. Thompson broke the record with an amazing 50 years of service!



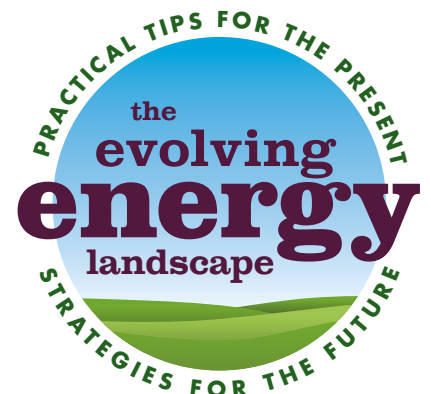
SSOE to Sponsor Energy Seminar at Maumee Bay State Park

"The Evolving Energy Landscape: Practical Tips for the Present; Strategies for the Future"

On July 15-16, SSOE will host the first annual "Evolving Energy Landscape" seminar at Maumee Bay State Park in Oregon, Ohio. Both SSOE and outside experts will deliver information and insights about the energy industry's complex, changing issues. Attendees will be better equipped to reach short-term energy goals and set a smart course for the future. The seminar will qualify for .7 CEUs and up to 10 PDHs.

Among the topics to be covered are the future of natural gas and electricity prices; air pollution control options; combined heat and power (CHP) issues; energy efficiency and assessment; options for financing energy projects; negotiating energy contracts; and reducing energy usage with data, fire, and security systems.

For a full agenda, or to register, visit:
www.ssoe.com/EEL2013



CONTRIBUTING PROFESSIONALLY & PERSONALLY

SINCE ITS FOUNDING IN 1948, SSOE has shared the advantages of its success in the communities in which it works. This has been accomplished through programs, volunteering, financial support, and donations. For more information on SSOE's commitment to corporate social responsibility, visit www.ssoe.com/about-us.



SSOE FOSTERS ENGINEERING AWARENESS IN CHILDREN

SSOE's Portland, Oregon office recently welcomed 14 students, ages 9 to 17, to experience engineering firsthand at the company's annual "Take Your Children to Work Day."

SSOE Vice President **Clem Wood** welcomed students to a day of learning and discovery. Project Manager **Jay Chester**, PE, shared what engineers do and explained the different types of engineering disciplines.

Throughout the day, students participated in fun, educational sessions on structural engineering, electrical engineering, and architecture. BIM/CAD Technical Leader **Matt Nelson** showed students how to sketch up a house using BIM technology. **John Smith**, Electrical Designer, had the students use balloons to illustrate electrical charges and how they move. SSOE Project Manager **Jonathan Knapp** showed students how a set of drawings is compiled and used to construct buildings.



ENGINEER FOR A DAY

SSOE also hosted approximately 40 students from area high schools at its Toledo, Ohio office for the "Engineer for a Day" program. Students participated in hands-on activities, explored the different engineering disciplines, and learned what it takes to become an engineer and potentially an employee of SSOE.

Ed McConnell, PE and **Zulema Lopez**, LEED AP led a demonstration titled, "Let's Build a Motor." Data / Fire / Security specialist, **Evan Baker** gave a presentation on fire alarm systems, new security technologies, as well as data center design and wireless networks. **Nate Kirwen** and **Brian Bergman** led a team-building activity featuring Legos and demonstrated project management principles. The day concluded with the presentation "What is Civil Engineering?" and a look into 3D technology and animation software with **Mark LaBell**.



BGSU SCHOLARSHIP

Recipients of SSOE's 2013-14 Architecture and Construction Management scholarships were Bowling Green State University (BGSU) students Jean Marie Green and Douglas Furia, respectively. We're excited that Douglas has accepted a position as summer co-op in SSOE's construction management department!



APRIL: AUTISM AWARENESS MONTH AT SSOE

Staff members showed their support for those with autism and their families by donating to Autism Speaks. Contributors had the option of wearing jeans to work on Friday, April 12. SSOE matched employees' donations.

To learn more about Autism Awareness visit www.ssoe.com/Summer2013.

MAY: CANCER AWARENESS MONTH AT SSOE

The American Cancer Society (ACS) is celebrating 100 years of saving lives and SSOE raised awareness of various types of cancer by posting educational materials on prostate, breast, colorectal, and skin cancer. In addition, staff who made a donation to the ACS had the option to wear jeans to work on Fridays in May.

To learn more, visit www.ssoe.com/Summer2013.



STUDENT SHADOW WEEK

Many local high schools require seniors to take part in a Student Shadow Program as a way to expose them to fields they are interested in pursuing. SSOE's Toledo, Ohio office has hosted and participated in the Program for more than ten years. In May, students had the opportunity to engage and interact with members of SSOE's staff from the mechanical, electrical, chemical, civil, structural, architecture, construction management, and design technology departments.



Volkswagen and SSOE Group Receive ACEC Engineering Excellence Grand Award for World's First LEED® Platinum Automotive Manufacturing Plant

SSOE Group received one of eight Grand Awards for Engineering Excellence at the 47th Annual Engineering Excellence Awards—a national juried competition sponsored by the American Council of Engineering Companies (ACEC). The award, presented in honor of the new Volkswagen Assembly Plant in Chattanooga, Tennessee, was presented at an award gala in Washington D.C.

SSOE performed full design and construction management for this \$1+ billion production facility that produces the Passat. It is the first and only LEED Platinum automotive manufacturing plant in the world, the first LEED platinum industrial campus in the U.S., and the largest platinum project in the U.S. (based on building area).

For more information about the VW Chattanooga project, including videos and an online photo gallery, visit: www.ssoe.com/platinum



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Inside: Maybe you want to find out what our experts are talking about these days, or would like to drill down into people news and exciting things going on throughout SSOE. It's all here. Great coffee break reading.

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