SPED Update

Volume III, Issue 4

April 2010

Executive Director's Note: Green Piping as Taught

by Dr. William G. Beazley, Executive Director of SPED

The number one question my piper friends ask is, "What is this Green Process Piping class all about?" Although it is still of a bit of a moving target, there is enough content taking shape to report it to SPED Members.

Succinctly put, green piping it the selection, sizing and routing of piping components to minimize life cycle energy costs.

That being said, the current GPP program concentrates on two areas.

1. Pumping Energy Costs lost in Piping
2. Heat Lost in Poorly Insulated Pipe and Components

One 4-hour learning module is devoted to each of these two topics.

Pumping Energy Costs

Through a generous software grant from Engineered Software, Inc., the GPP program is using their PIPE-FLO program to simulate pipe flow losses through a simple pump, FCV and exchanger system. See Figure 1. below.

Using a built in piping energy cost calculator, trainees model the system and calculate the energy consumption for the system. Students can then vary pipe sizes, components and other details of the routing.

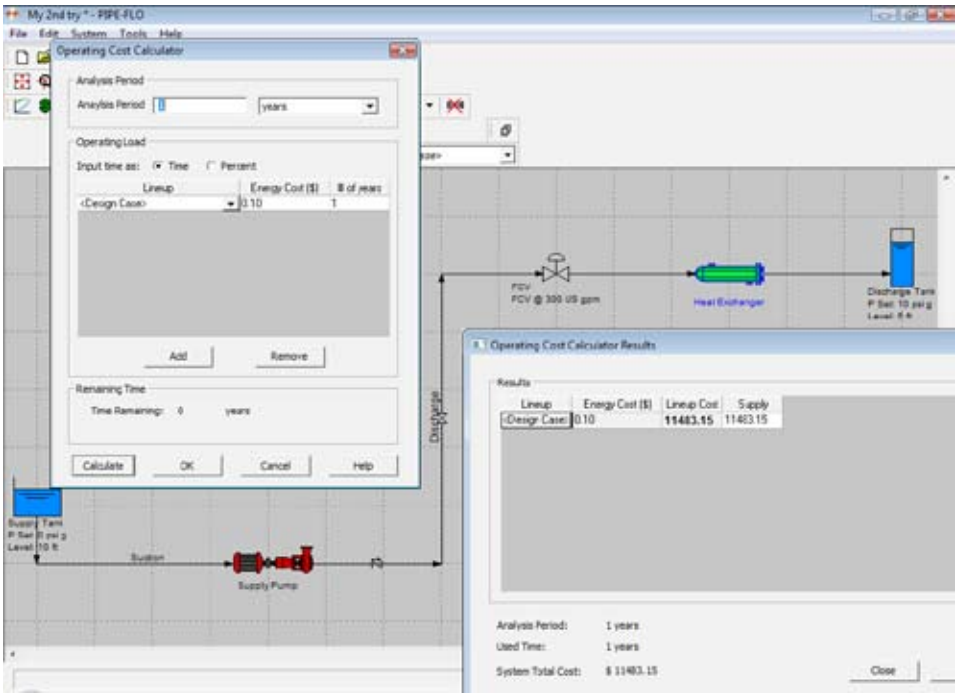

Figure 1. Energy costs calculated by PIPE FLO for a simple system.

Heat Lost in Poorly Insulated Pipe and Components

The insulation module is scheduled for April so we can only discuss current plans at this time.

Using a new software program 3E, developed by the North American Insulation Manufacturers Association (NAIMA). http://www.pipeinsulation.org/

The class will calculate payback on insulating selected pipe. 3E determines economic thickness of insulations based on return on investment for chosen fuel cost, installed cost, tax rates, maintenance, etc.

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THIS ISSUE'S HIGHLIGHTS

Total CAD Systems Hosts Open House

SPED Calgary Chapter Kick-off is Fast Approaching!

SPED Offers Online Review and Test for Unemployed Pipers At Reduced Rates

Lee College Launches Process Piping Design Program

Total CAD Systems, Inc. Open House for SPED Members

Discover the latest Plant Solutions technology Total CAD Systems, Inc. has to offer and see how these solutions can help you and your company maximize your potential, reduce costs, improve efficiency and foster innovation.

Total CAD Systems, Inc. offers the following Plant Solutions software:

AutoCAD Plant 3D 2011 - Design, model, and document process plants with AutoCAD Plant 3D 2011. Built on the familiar AutoCAD platform, AutoCAD Plant 3D brings modern 3D design to plant designers and engineers. Features like specification- driven design, integrated AutoCAD P&ID functionality, and quick generation of construction documents increase productivity, accuracy, and coordination.

AutoCAD P&ID 2011 - Create, modify, and manage piping and instrumentation diagrams with AutoCAD P&ID 2011. Built on the latest AutoCAD platform, AutoCAD P&ID is familiar and easy to use. Common tasks are streamlined and automated to boost productivity, while component and line information is easily accessed by designers as they work.

Navisworks Manage 2011 - Autodesk® Navisworks® Manage software is a comprehensive review solution for analysis, simulation, and communication of project information. Multi-disciplinary design data can be combined into a single integrated project model for interference management and clash detection.

The Total CAD Systems, Inc. Plant Solutions Open House will be from 6pm – 8pm. Our highly-skilled, industry trained Application Engineers will give a sneak peek into the new Autodesk Plant Solutions portfolio.

For more information or to register for this exclusive event, please email Nhi Hong at nhong@tcadsys.com or call (281)445-6161.

SPED Offers Online Review and Test for Unemployed Pipers At Reduced Rates

SPED is offering an online Review and Test for Professional Piping Design (PPD) Levels I and III at the reduced rate of $200. The application fee for SPED certification is also included.

Each Review and Test is a *condensed* version of two online courses offered by SPED.:

- The 10-week Piper BootCamp which prepares pipers for PPD Level I certification.
- The 10-week Process Piping Layout course which prepares pipers for PPD Level III certification.

If you are unemployed, the Review and Test is reimbursable using the Workforce Investment Act.

To determine which level is right for you, go to http://www.spedweb.com and click on the Online Courses banner. There you will find descriptions of what will be covered in both the Level I and Level III Review and Test.

If you are unemployed and a member of SPED, the $200 registration fee for the Review and Test is reimbursable using the Workforce Investment Act (WIA) administered by the Texas Workforce Commission (TWC).

Email spedmgr1@spedweb.com for information about Membership for unemployed pipers. Membership dues are also reimbursable under the WIA.

To register for the Review and Test, email spedsrvs@spedweb.com.

Canadian Corner

The SPED Calgary Chapter Kickoff Meeting and Reception is Fast Approaching!

Don't forget to RSVP for the SPED Calgary Chapter Kickoff Meeting and Reception on April 8th. The event is sponsored by AVEVA and will be at the Hyatt Regency Hotel in Calgary. RSVP for Thursday evening by emailing mark.mckee@aveva.com.

Slots are also being filled for the Review and Test being held on Saturday, April 10th, at WorleyParsons. if you haven't already registered, now is the time.

Register at http://www.spedweb.com.

Everyone is looking forward to a lively discussion about what is needed from the new Calgary Chapter of SPED.

SPED DIRECTORY

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SPED UPDATE NEWS, PRESS RELEASES AND ADVERTISING
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SPED PIPER VIDEO SERIES
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ACCOUNTING
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Join Us For The SPED Calgary Kickoff Meeting!

INTRODUCING SPED CALGARY

KICKOFF RECEPTION AND MEETING FOR SPED CALGARY

Join us for the SPED Calgary Chapter Kickoff Reception and Meeting and find out what SPED is all about. Network with fellow Pipers, and hear about current trends in Piper employment, certification and licensing.

ONE-DAY SPED PPD LEVEL III REVIEW AND TEST

In conjunction with the Kickoff Reception and Meeting, SPED is offering the SPED PPD Level III Certification Review and Test for experienced Pipers. Dr. William Beazley will conduct the review immediately followed by the test.

KICKOFF RECEPTION AND MEETING

Sponsored by:	AVEVA CONTINUAL PROGRESSION
Speakers:	William G. Beazley, PhD, P.E., Executive Director, SPED Perry Nelson, R.E.T., P.L. (Eng.), B.Mgmt. Registrar, ASET Hanno Tam, VP of AVEVA Canada
Date:	Thursday, April 8, 2010
Time:	5:30 P.M. - 7:30 P.M.
Location:	Hyatt Regency Hotel, Calgary
RSVP	mark.mckee@aveva.com

PPD LEVEL III REVIEW AND TEST

Hosted by:	WorleyParsons resources & energy
Who Should Attend	Pipers with 5+ years of experience
Instructor:	Dr. William G. Beazley, Executive Director, SPED
Date:	Saturday, April 10, 2010
Time:	8:00 A.M. - 5:00 P.M.
Location:	WorleyParsons Canada, South Calgary Office
Member Registration Fees:	USD $200 *(Kickoff Event Price)*
Non-Member Registration Fees:	USD $300 *(Kickoff Event Price)*
Register:	www.spedweb.com *Register by March 20th and get a bonus Online Review!*

9211 West Road, Suite 143-219, Houston, TX 77064 1.832.286.3404

Lee College CADD/ Engineering Technology Division Launches Process Piping Design Program

For individuals looking to start a new career or who want to increase their technical skills and employability, Lee College has launched a Process Piping Design program where students can gain a foundation in theoretical and practical knowledge in the engineering technology field with an emphasis in piping design. Process piping or piping drafters prepare drawings used in the layout, construction, and operation of oil and gas fields, refineries, chemical plants, and other process piping systems.

In July of 2008, the Texas Gulf Coast Workforce Board designated Process Piping technology as a high skill, high growth occupation where employment is expected to increase through 2014. Piping drafters' earnings vary by specialty, location, and level of responsibility. According to the U.S. Department of Labor Statistics, entry level wages can range from $16.00 up to $21.00 per hour.

Prospective drafters should be able to draw well and perform detailed work accurately. Mechanical ability and visual aptitude are important for drafters and an artistic ability is helpful in some specialized fields. In addition, prospective drafters should have good interpersonal skills because they work closely with engineers, surveyors, architects, other professionals and with customers.

Lee College Process Piping Instructor Donna Burroughs, who was instrumental in the creation of the program, explains that students who complete the program with an Associates degree are prepared for entry-level employment or for transfer to a four-year university program.

“We provide an interactive learning environment where students can gain the experience they need through hands-on training using state-of-the art technology, software and equipment,” said Burroughs. “We work closely with industry partners to ensure our curriculum is up-to-date and meets industry standards.”

For 23-year-old piping design student Thomas Cook Jr., the desire for a better future for his family motivated him to enroll in college.

> “In 2007, my wife and I found out she was pregnant and I was working a dead-end job,” said Cook. “We thought it would be beneficial for me to go to college so we could afford the life and luxuries we want for our kids and ourselves.”

Cook, who describes himself as goal-oriented and energetic, is pursuing an Associate’s degree in Computer Aided Drafting.

> “I decided to take as many of the drafting classes as I could so that I could make myself a well rounded drafter,” said Cook. “Piping design is my strong point and is comes natural to me. I’ve developed a passion for it and I enjoy every aspect,” adds Cook.

Cook is already applying his drafting knowledge and sharing his passion by helping other students in the piping design program.

> “I have also had the pleasure to be an SI (Supplemental Instructor), which has allowed me to stay sharp on my skills as a drafter,” said Cook. “My goal is to become a Senior Pipe Designer/Project Manager in a process plant."

For more information about Lee College’s Process Piping Design program, contact Donna Burroughs at 281-425-6476, or email dburroughs@lee.edu.

Students and those interested in this program can attend the Information/ Department Registration Night on Wednesday, May 5th, 6:00 p.m. - 9:30 p.m. on Lee College Campus in Tucker Hall.

SPED will also be at this event, and Dr. William G. Beazley, Executive Director will give a brief presentation.

Take the Pledge!

100% CLUB
SPED Professional Piping Designers

Join the SPED PPD 100% Club

SPED PPD 100% Club members pledge that 100% of their Piping Designers will become certified as Professional Piping Designers (PPD). Documenting staff credentials are simple:

- 100% of current Piping Designers get PPD Certified within one year of joining the program.
- New hires become PPD Certified within one year of employment.

Once you sign up and become a member of the PPD 100% Club, you can display the Club logo.

The PPD 100% is exclusively for SPED Corporate Members. SPED supports PPD 100% Club Members by providing the following:

- A copy of the PPD Review Video to help Piping Designers prepare for PPD exams.
- On-Call testing at the SPED office. (Fees apply.)
- Onsite testing review with 20 or more participants. (Fees apply.)
- Assistance to members in applying for State Funds to defray training and testing costs.

The PPD 100% Club Benefits EPC Employers, Clients and Piping Designers!

Contact us for more information.

SOCIETY OF PIPING ENGINEERS AND DESIGNERS
SPED

www.spedweb.com • Phone 832.286.3404 • spedexec@spedweb.com

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Executive Director's Note: Green Piping as Taught

This new content will be delivered in large part by a guest speaker, Ron King, Past President & Consultant to the National Insulation Association.

Part of a Larger Program

The Green Piping focused modules (eight contact hours) are within a 160 contact hour training program well known to the Houston EPC community.

The GPP training program is derived from the Accelerated Piper Program the ended in 2008 and has four lecture modules and four specialized laboratory modules to use and confirm the advance technologies taught. Of course, strategies and concepts related to energy efficiency and life cycle costs are spread throughout.

Who is Trained

Candidates for this new and advanced training are carefully screened and assessed for piping knowledge and CAD skills before admission to the program.

The program is funded by the American Recovery and Reinvestment Act of 2009, administered by the Houston-Galveston Area Council, to train unemployed pipers. Due to economic conditions, there are many highly qualified pipers available to consider.

Candidates are carefully screened for experience and education that would accelerate their learning under this program. For example, for the first class of 13, over 120 resumes were screened, candidates interviewed and their knowledge and skills assessed. The result was a highly motivated class eager to learn new skills and abilities.

What they Achieve

Successful graduates gain four distinct credentials from the program:

1. Completion of an Advanced Structured Curriculum focusing on Green Process Piping Techniques
2. Completion of four specialized laboratory modules where techniques are practiced
3. College Credit for course leading to a Marketable Skills Award (if candidate has an AAS Degree)
4. SPED Professional Piping Designer Certification to Level I or higher (depending on work experience)

Long Term Agenda

The GPP Training Program demonstrates that there is an even greater potential for piping designers to contribute to EPC designs than was previously thought.

Graduates are being actively recruited by a variety of employers from owner/operators to EPC firms who realize that properly trained designers save money for them and their clients. Each has a unique personal work history that is now extended by solid skills of benefit to today's tasks.

Longer term, piping designers are firmly on a path that demands technical skills far beyond the drafting skills targeted by so many training schools. CAD operators can be found anywhere to fill chairs and encode the designs of others.

Today's piping designer must understand the electronic data they enter to become a participant in quality assurance and quality control.

Tomorrow's piping designer will use the sophisticated computer-aided engineering tools to propose designs and, with proper oversight, technically analyze designs for efficiency and effectiveness.

U.K. CHAPTER NEWS

March 2010 - SPED in the UK & Eire

by Norman Harris

We said in the January SPED Update that the piper training environment is different in the UK. There is considerable Government support for training, but it is targeted at quite low level skills. I am involved with Cogent (http://www.cogent-ssc.com/index.php) the main provider and trying to get them to raise the sights of the skill levels to engineers which would include piping design and layout specialists. I am doing this by linking them into my professional body the IMechE (Institution of Mechanical Engineers).

UK Training Boards and SPED

Training used to be provided by industry training boards. There are only two Training Boards still in existence, but one is aligned well with the UK SPED focus. It is the ECITB (Engineering Construction Industries Training Board). It exists through a compulsory levy on all companies trading in that sector. The levy has been used to develop a training course, of which the SPED Executive Director, Bill Beazley, and I have seen selected portions, when we looked closely at the UK market in January 2009. There is so much staff turnover in the market that it is difficult to get any feedback on its use, most of our good contacts have been let go. It was meant to be completed in August 2009.

SPED has offered its cooperation on developing ECITB materials and proposed using the SPED Certification tests used at the conclusion of training. Our approach was declined on the former, but the latter is still a possibilit-

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March 2010 - SPED in the UK & Eire

SPED Outreach to UK EPC Firms

SPED has also tried direct outreach to UK EPC firms. Corporate Membership and Piper Certification is where we focus our marketing efforts. Many SPEDUS Corporate Members have UK sister companies that share information on training and professional development. SPED UK is hoping to benefit from SPED's successes in the US, Canada, Ireland and other countries to increase UK membership.

Other UK News

The items making the Process headlines this month are:

The National Grid, the now privatised company that controls the UK's distribution network of electricity and gas is trying to build 8x20MW biofuel plants. Environmentalists are protesting.

The IMechE is telling the British government what every engineer knows that the target of a new nuclear powers station every year from 2018 will not be achieved, at least in the early years, so the UK still faces power cuts for 2015 onwards.

Carbon Capture & Storage (CCS) still gets regular headlines with new pilot scale plants popping up in many locations throughout Europe. I am organising a conference in October where I also hope to have US speakers. norman.harris@20cc.co.uk

Intergraph Announces Spring 2010 GetSmart! Webinar Schedule

The Intergraph GetSmart! Webinar Series is an excellent source of industry success stories and technical information. The spring Webinar calendar is full of sessions designed for all disciplines in the engineering and construction and operations and maintenance fields.

Register now for the following spring 2010 Webinars at www.intergraph.com.

3D & Visualization

Smart 3D Model Referencing: Enabling Diverse Project Workflows with Power and Simplicity, April 28, 9:00 a.m. (CDT)

Smart 3D Model Referencing: Enabling Diverse Project Workflows with Power and Simplicity, April 28, 7:00 p.m. (CDT)

Construction

SmartPlant Construction Update, April 13, 9:00 a.m. (CDT)

SmartPlant Construction Update, April 13, 7:00 p.m. (CDT)

Owner Operators, PMCs, and Contractors

Interface Control: Managing the Complex Technical Interfaces Between Project Stakeholders to Reduce Risk and Costs, April 22, 9:00 a.m. (BST)

Interface Control: Managing the Complex Technical Interfaces Between Project Stakeholders to Reduce Risk and Costs, April 22, 11:00 a.m. (CDT)

Engineering & Schematics

Hosting Projects, April 14, 9:00 a.m. (CDT)

Intergraph Electrical Solution: SmartPlant® Electrical and SIGRAPH. CAE®, May 12, 9:00 a.m. (CDT)

SmartPlant P&ID Technical Update, June 2, 9:00 a.m. (CDT)

More Webinars are planned. For the latest information on upcoming Webinars, please visit our GetSmart! blog.

Fluid Fundamentals Training Pump Training Near You! Earn 20 PDH

Skills are the rule, not the exception in today's economy. Register now for the 3 day Total Pump course & become an asset to your company.

Learn how to properly size pumps and save money while improving plant and system efficiency. Be the company hero!

Total Pump Training, Taught by Pump Expert and Author, Michael Volk, P.E.

The Total Pump Training course is an in depth look at common pump applications, including selection, operation, troubleshooting, and maintenance.

Key topics covered are:

- How to understand and get more out of your Pump Performance Curves.
- Learn about the ANSI and API pump standards and what they mean for you.
- Identify the main pump principles and characteristics of typical pump designs.
- Avoid pump cavitation by recognizing what causes it.
- How lifetime maintenance costs AND energy costs can be lowered at the beginning of the pump selection process.
- Root Cause Failure Analyses an how to effectively solve pump problems.
- Discover the top reasons for pump failure and how you can prevent these problems.

WHEN: May 11-13, 2010
WHERE:Houston, TX
WHY: A good understanding of proper pump application, selection, operation, troubleshooting, and maintenance is vital to the success of your company.
HOW: Call us: (800) 786-8545 or (360) 292-4050, Register online at http://shop.fluidfundamentals.com.
Paid Registrations accepted until the morning of the course, 8AM.

SOCIETY OF PIPING ENGINEERS AND DESIGNERS

offers the following online courses:

PPD Piper BootCamp

Ends in Level I Certification Exam; Testing and Textbook included in fee

Process Plant Layout and Piping Design

Ends in Level III Certification Exam; Testing and Texbook included in fee

SESSION IV 2010	SESSION V 2010
April 19th - June 25th	May 17th - July 30th

Register online at www.spedweb.com

9211 West Road, Suite 143-219, Houston, TX 77064 832.286.3404

New project?
Staffing issues?

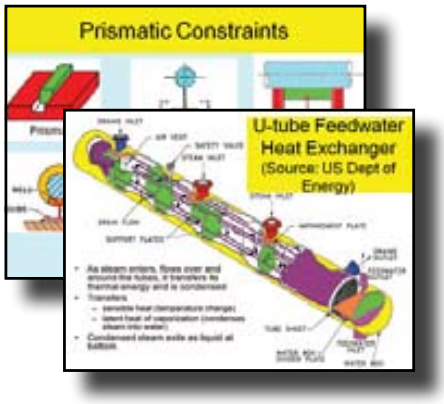
THE SPED PIPER VIDEO SERIES IS YOUR ANSWER.

"It's the Piper's resource for Information and Just-in-Time Training."

PIPER BOOTCAMP covers equipment and fittings necessary for routing pipeline from nozzle to rack to nozzle.

PROCESS PLANT LAYOUT covers knowledge and skills required for plant equipment and layout. Targets pipers already familiar with in-line pipe routing.

Version I contains original video recordings of live presentations by industry leaders. **Version II** contains newly recorded videos with additional topics, and extended notes.



Designed for the new Piper and as a useful resource for experienced Pipers, the SPED Piper Video Series is considered the Industry Standard for piping training.

For more information, call 832.286.3404 or email videos@spedweb.com.

Calendar of Events

Dates and Times	Day(s)	Location	Cost	Membership
SPED Calgary Kickoff Reception and Meeting, April 8th, 5:30 P.M. - 7:30 P.M.	TH	Hyatt Regency Hotel, Calgary, AB	FREE	RSVP by emailing mark.mckee@aveva.com
SPED PPD Review and Test, April 10th, 8:00 A.M. - 5:00 P.M.	SAT	WorleyParsons Canada, South Calgary Office	$200 Mbr $300 Non-Mbr	Register at www.spedweb.com
Lee College Information/ Department Registration Night: Piper Program and SPED will be exhibiting. May 5th, 6:00 P.M. - 9:30 P.M.	W	Tucker Hall, Lee College Campus, Baytown, TX	FREE	Email dburroughs@lee.edu for more information.
ECC 2010 - 42nd Annual ECC Conference, Semptember 1-4, 2010 http://www.ecc-conference.org/	W-S	Riz Carlton, Orlando Great Lakes Orlando, FL	See website	Registration via ECC website
2010 CadWorx University: September 27-29, 2010 www.coadeuserconference.com	M-W	Woodlands Waterway Marriott Hotel, Houston, TX	See website	Registration via COADE website
SPED 2010 Annual General Business Meeting and Corporate Member Showcase	TBD	Omni Houston Hotel at Westside, Houston, TX	TBD	Open to Members and their Guests

Join SPED Today!

Join us and enjoy discounts and other benefits. Visit http://www.spedweb.com.

Individual Professional Membership	$70 USD
Student Membership	$20 USD
Small Corporate Membership	$500 USD
Large Corporate Membership	$1000 USD
Global Corporate Membership	$10,000 USD
Academic Institution Membership	$500 USD

SPED Staff

Dr. William Beazley, Executive Director, Treasurer, Editorial Contributor

Andrea Macejak, Manager of Operations

Sarah Evans, Membership, SPED Update Editor, Advertising Sales

Amy Voss-Foster, Education Specialist

Rachel Nichols Membership, Certification

Training Calendar				
Dates and Times	**Day(s)**	**Location**	**Cost**	**Membership**
PipingSolutions, Inc.: 2010 TRIFLEX® April 12th – April 14th October 18th – October 20th	M-W		$900	Register at www.pipingsolutions.com
PipingSolutions, Inc.: 2010 TRIFLEX® Dynamic Course Dates April 15th – April 16th October 21st – October 22nd	M-W		$900 $600	Register at www.pipingsolutions.com
Full Statics & Dynamics Seminar 8:30 a.m. - 5:00 p.m.	Th-F		$1,295	Register at www.pipingsolutions.com
Plant Success Conference: Energy Leadership Forum: A Balanced Response to Climate Change April 14-15, 2010 1:00 – 5:00pm	W-TH	Hilton Houston NASA Clear Lake	$895	Register at http://www.newor-leansauction.com/plantsuccess/registration.php
AVEVA Webinars: 12 very informative webinars available anytime.	Ongoing	Online	FREE	www.avevawebinars.com
FIATECH Tech Tuesday Webinar Series www.fiatech.org	T	Online	FREE	Register @ info@fiatech.org
Total Cad Systems, Inc.: AutoCAD P&ID Fundamentals	M-TU	Online	FREE	Register at http://www.tcadsys.com
Total Cad Systems, Inc.: AutoCAD Intermediate		Online	FREE	Register at www.tcadsys.com
SPED PPD Review and Test, April 10th, 8:00 A.M. - 5:00 P.M.	SAT	WorleyParsons Canada, South Calgary Office	See flyer in April SPED Update	Email spedadmin@spedweb.com, or call 1-832-286-3404
PPD Piper BootCamp Online April 19th - June 25th Early Registration Discount		Online	$1,500 $1,400	SPED Members Only Registration by April 9th
PPD Process Plant Layout Online April 19th - June 25th Early Registration Discount		Online	$1,500 $1,400	SPED Members Only Registration by April 9th
PPD Piper BootCamp Online May 17th - July 16th		Online	$1,650	SPED Members Only
PPD Process Plant Layout Online May 17th - July 16th		Online	$1,650	SPED Members Only