
April - May 2021 SPED Update

1 message

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Society of Piping Engineers and Designers

April - May 2021 SPED Update



Membership News

New Members and Renewals

Ehab Salman
Mahmoud Aly
Javier Rubio Barragan
Mohmmad Shoeb Mohamed Akhtar Lacewala
Douglas Lyons
Dan Jerry Cortes
Jesse Moser
Jamison Mrozewicz

Miguel Angel Sanmartin Rodriguez
Mohamed Fahmi
Mohamed Karam
Mahmoud Abdelhalim
Joseph Schmitt
Gary Rodrigues
Tyler Magliolo
Chad Snider
Juan Uribe
Hexagon
ImageGrafix India

PPD Certification Achieved

Alfred Mercado
Farhan Hamdi Razali
Olga Zhuravlova
Valeriy Maslov
Arti Patel
Diana Yu
Mahmoud Mohammed Sami Salem Hassan

Piper Boot Camp and Process Plant Layout

Douglas Lyons - SPED Bundle
Mohammad Shoeb Mohamed Akhtar Laceywala

PPD Certification Enrollments

Solomon Emawodia
Ahmed Ali

PBC Completion

Krisjon Sison
Daniel Morton

High Purity Course Enrollments

Farhan Hamdy Razali
Jimmy Garcia

SPED Seminar: Information Flow to Pipers

The video recording of the event is available at the SPED YouTube Page:

<https://www.youtube.com/c/SPEDSocietyofPipingEngineersandDesigners>

Checking, Quality Assurance and Quality Control of Piping Drawings

"Checking or the Quality Assurance & Quality Control (QA/QC) in process plant piping engineering and design is a grossly misunderstood activity that is performed (or should be performed) by every piping group on every process plant project deliverable. Problems arise when checking is not done and when it is done it is often done incorrectly. When it is done incorrectly not only the end result (the document) suffers but the designer who created the document suffers and the checker who does the checking also suffers."

<http://pipingdesigners.com/contents/tips-tools-training/section-3-quality-control/28-section-3a-checking-quality-assurance-and-quality-control-of-piping-drawings>

What is Design Intent?

"Design intent is a method used in computer-aided design that defines relationships between objects, so that a change to one propagates automatically to others."

I am not too sure about the use of the term 'Design Intent'. 'Design Synchrony' maybe would be better. The use of common words and terms **that already have meaning** to describe new things that software does easily leads to miscommunication.

<https://www.ptc.com/en/blogs/cad/design-intent-explained>

3D Reconstruction of As-Built Model of Plant Piping System from Point Clouds and Port Information

"In plant configuration management, as-built or as-operated 3D models show high utility in product life cycle management. Since the actual plant site should be reflected in the as-built 3D model, it is not created based on the design drawing but the laser scan data. There is a commercial software (SW) that reverse engineers as-built plant models from 3D point cloud data, which are scan data. Studies have been conducted for the automation of the process."

<https://academic.oup.com/jcde/advance-article-pdf/doi/10.1093/jcde/qwaa072/34155840/qwaa072.pdf>

What are the Standard Requirements on the Proximity of Welds?

"Weld proximity is covered by a number of international standards. Extracts from these standards are shown below and summarised in the following table."

<https://www.twi-global.com/technical-knowledge/faqs/faq-what-are-the-standard-requirements-on-the-proximity-of-welds>

What Is Point Cloud Registration?

"Point clouds are datasets collected during laser scanning surveys. These data clouds consist of 3D (XYZ) coordinates that collectively represent scanned surfaces, detailing the lay of the land and the shape, dimensions, and size of topographic features and human-made structures."

Surveying teams use point cloud data to create digital models and maps of surveyed areas, allowing for data analysis to take place on workstations, rather than on-site. But before organizations can extract value from point cloud data, datasets need to be registered."

<https://new.certainty3d.com/blog/what-is-point-cloud-registration/>

Piping and Instrument Diagrams (P&IDs): Parts 1 & 2

"Process engineers develop schematic drawings that show how fluids move from point A to point B. These drawings will also show associated measurements, monitoring, controls, safety devices, etc. While several names and variations exist for these schematic drawings, this article will refer to them as piping and instrumentation diagrams (P&IDs). Anyone that has been involved with P&IDs for front-end engineering design (FEED) or engineering, procurement and construction (EPC) projects may be familiar with the subject matter discussed here. However, for any engineer, owner or operator coming from a non-P&ID world to the P&ID world, this article will increase understanding of the subject and lessen the potential daily shocks."

<https://becht.com/becht-blog/entry/piping-and-instrument-diagrams-pids-part-1/>
<https://becht.com/becht-blog/entry/piping-and-instrument-diagrams-pids-part-2-causes-and-management-of-change/>

Racks and Tracks



"Until the 1970's process pump rows were commonly located each side of and underneath the pipe rack. Motors were on the inside with the nozzles facing out, and fork lift access was provided down the middle. This was a very efficient use of plant real estate and gave good maintenance access to the pumps."

<https://processpiper.com/racks-and-tracks/>

Free to SPED Members - High Purity Piping Module

The SPED Board has released its new module on High Purity Piping. The module is free to SPED members. High-Purity piping is important in many industries, including:

- Food, Dairy, and Beverage
- Pharmaceutical
- Bioprocessing

- Semi-Conductor

This module is a quick overview of the standards and practices utilized in High-Purity piping and equipment.

The module is free to all SPED members. Registration can be done yourself, with the enrollment key given to you by this office.

For more information contact
catherine_van_der_walt@spedweb.com



Typhoon-Class Submarine Flange Bolting

Lifecycle Management of Component Catalogs Based on a Neutral Model to Support Seamless Integration with Plant 3D Design

"In a process plant construction project, various stakeholders are involved, including an engineering, procurement, and construction (EPC) company, component manufacturer, supervisor, owner, and operator. The project data managed by these stakeholders and the engineering system used for their work processes vary. Moreover, information is often updated throughout different stages of a project. During these processes, a data interoperability issue arises. Data interoperability refers to whether files or data of a sending system are converted and processed to correspond to the format of a receiving system. When data interoperability is not secured in a project, it demands increased costs, time, and labor of project participants. Thus, a proper environment in which diverse stakeholders can exchange and share accurate data at the right time needs to be provided in a process plant construction project."

<https://academic.oup.com/jcde/article-pdf/8/1/409/36098054/qwaa087.pdf>

SPED Training and Certification News

The [spedexams.com](https://www.spedexams.com) PPD Exams website has been merged into the [SPED.education](https://www.spededucation.com) PPD Courses website.

This change will save on server space and consolidate training-related content.

Boost the Reliability of a Solvent Supply Pump

"Pump problems are an accumulation of errors. Not a single one is directly responsible but acting together they are causing you trouble. You have long horizontal runs of pipe, concentric reducers, 90° elbows for the splits between the pumps, no straight pipe for one of the pumps, etc. Trouble begins when you cut corners. A popular one seen is tank inlet pipes terminating above the fluid level. The fluid then cascades into the tank picking up air (or in a padded tank, nitrogen)."

<https://www.chemicalprocessing.com/articles/2006/076/>

Anton's PipingDesigners.com Jobs Board Has Been Rebooted



A Contractor's View of BIM (part i) **A Contractor's View of BIM (part ii)**

"The fact is that the way most contractors typically utilize BIM on today's construction projects is downright idiotic and costly."

Piping: Understand A Cold Fact About Ice

"Today, many people turn to the Internet to quickly look up information. One engineer searching online for the insulation value of ice found a plethora of confusing data rather than clarity. That's not surprising because many factors — including the rate of freezing, airborne contaminants present, entrapped air or gases, measurement technique and measurement device accuracy— affect the measured thermal conductivity of ice."

<https://www.chemicalprocessing.com/articles/2018/piping-understand-a-cold-fact-about-ice/>

Special COVID-19 Home Study Pricing Continues for May and June 2021

SPED recognizes that many of our members are under stay-at-home orders. We must work and study away from workplaces and schools.

Continuing for the months of May and June, SPED is offering a bundle price for its two online courses, **Piper Bootcamp** and **Process Plant Layout**. For the price of the course (membership required), both the course and PPD Certification Testing and application is included. This is a US\$250 savings.

We hope this helps utilize the time productively. Please stay safe!

For more information contact
catherine_van_der_walt@spedweb.com

Bulk Oxygen Supply to Hospitals During Covid-19

https://www.spedweb.com/articles/O2_in_Demand.pdf

REMINDER TO SPED MEMBERS TO UPDATE THEIR PROFILES AND PROVIDE A NON-WORK CONTACT EMAIL ADDRESS

Many SPED members use their work email address when they join SPED, but this means that we will lose your contact details if you change jobs. Login at spedweb.com and keep your email address up-to-date.

CAD Manager Column: Use situational awareness to help you find out the cause of a problem so you can better solve it and make sure it doesn't happen again

<https://www.cadalyst.com/management/keep-calm-solve-problem-78602>

Professional Piping Designer Certification
GET CERTIFIED WITH SPED
FOR MORE INFORMATION: EMAIL CVDM@SPEDWEB.COM OR CALL +1 713-960-4478

Are You Certified?
When choosing among pipers, clients and employers know that Certified Professional Piping Designers (PPD) meet the specific requirements of the process piping industry.

Baseline PPD Certification | SPED Membership Status
New Member
Full Member

In today's competitive marketplace, the most qualified pipers have the best careers and their firms secure the most contracts. This is why SPED is promoting PPD Certification for all pipers. To that end, SPED has developed online courses, challenging exams, and programs like the PPD 100K Club to help pipers achieve excellence and document their skills with PPD Certification. The four levels of PPD Certification (see at right) indicate each piper's level of competence.

To schedule your online PPD Certification exam or register for an online course, email cvdm@spedweb.com or call +1 713-960-4478.

LEVELS OF PPD CERTIFICATION
Level I: Basic PPD, Properly Trained
Level II: Advanced PPD, Organize Work
Level III: Senior PPD, Independent Producer
Level IV: Lead PPD, Manage, Advise Work

About Certification
All PPD levels require proctored testing. Currently, level progression is based upon years of experience, education, and industry references. Level IV requires proven peer supervisory experience.

SPED offers online courses and an online Review and Exam to help you prepare for PPD Certification. Piper BootCamp is a self-paced online course for beginning pipers with piping-related education. Process Plant Layout is a self-paced online course for pipers with five plus years of experience. Each course's price includes course material, a textbook, exam, the application fee for PPD Certification and one year SPED Membership.

If you are confident in your knowledge of the material listed in our online courses, then the PPD Review and Exam may be the right choice for you. More information about PPD Certification, online courses, and the Review and Exam is available at www.spedweb.com. The PPD Certification application is also available for download at www.spedweb.com.

Steps to PPD Level I Certification
1. Submit a completed certification application form along with your resume and three references;
2. Pass the PPD Level I Examination;
3. SPED will review your application and exam results and determine if all criteria have been met. If all criteria are met, SPED awards certification;
4. Annually renew your PPD Certification at www.spedweb.com.

Steps to PPD Level Advance
1. To advance PPD Level, submit a completed certification application form along with your resume and three references;
2. Pass the appropriate PPD Level examination;
3. SPED will review your application and exam and determine if all criteria have been met. If all criteria are met, SPED awards certification. PPD Level IV may require a review by the SPED Board of Directors;
4. Annually renew your PPD Certification at www.spedweb.com.

Two Steps to Renew
1. Complete and document the required PPD Professional Development Units (PDU's) by logging in to your SPED account profile at spedweb.com;
2. Go to www.spedweb.com, click on JOIN / RENEW.

SPED Membership is not necessary for certification.

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Pipeline Blasting



This looks like fun!

https://www.youtube.com/watch?v=TZc2gAMxFzg&ab_channel=DavidHersey

Flexicraft is your one call for every style of expansion joint and flexible connector.



(Click link for video)

Don't forget that SPED is always on the lookout for member-written piping-related articles to publish at the website

See you all next time and stay safe!

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