Honorable Members of PUPID,

Well, it is already the end of May and as I write this I have just returned from a 6-week shutdown in Oglethorpe, Georgia where I was providing TDC3000 support for Weyerhaeuser (besides old Honeywell, I can read Sanskrit, too – not really) where they were commissioning a new turbine-generator & totally overhauling their recovery boiler (converting their B&W to an Andritz design) – replacing “a mess o’ tubes, going to 74% solids & adding a few new soot blowers. It was 6 weeks of long hours & a few challenges; but great to be in the mill!

Back to the business at hand – the newsletter; our net division membership has decreased slightly from 327 to 315 members. We do have 9 new division members since February, 2015. Welcome to the new members!

We’re still in the midst of programming for the 2015 ISA Process Control & Safety Symposium. PUPID had one track on one day (four – 90-minute sessions) at last year’s symposium & we’ll likely do the same again this year. So, send in your abstracts & come on down to the Houston Westchase Marriott.

If you haven’t seen it before I strongly urge you to read the “High Performance HMI” paper by Bill Hollifield & Hector Perez; it might be a revelation to you (it was for me) as a complete paradigm shift in how to do HMI’s!

I hope it is an encouragement to you to become more involved with the Division and to enroll more members from the great international pulp & paper community.

Please do not hesitate to contact me at my email brad.carlberg@bsc-engineering.com to discuss how you can help PUPID.

Do feel free to forward the Newsletter to your friends and colleagues who may have an interest in it.
**TUNING TIP CSE PE REVIEW QUESTION**

**QUESTION 702**

You have been asked to design and implement a process control strategy for the production of a chemical intermediate product. The process consists of a distillation column and two batch reactors as shown in Figure P702. An acidic feed is fed to the column which is operated at 500 mm Hg. Ninety percent (90%) of the column feed is taken as overhead product. The column overheads are fed into one of the two reactors until the control system switches the flow to the other reactor based on level. Once flow to a batch reactor is complete, an additive is fed to that reactor in a ratio of 0.15 pounds of additive per pound of column overheads. The following data and design requirements are given.

**Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column overheads specific gravity</td>
<td>0.9 liquid</td>
</tr>
<tr>
<td>Additive specific gravity</td>
<td>0.8</td>
</tr>
<tr>
<td>Batch reactor volume</td>
<td>20,000 gallons</td>
</tr>
<tr>
<td>On-stream factor</td>
<td>95%</td>
</tr>
<tr>
<td>Maximum allowable batch reactor level</td>
<td>90%</td>
</tr>
<tr>
<td>Reactor pressure input scale</td>
<td>0 – 60 psig</td>
</tr>
<tr>
<td>Final product requirement</td>
<td>100,000,000 lb / year</td>
</tr>
</tbody>
</table>

**Permissives to open feed valve to Reactor 1:**
- No emergency shutdown
- Not feeding Reactor 2
- Reactor pressure < 50 psig
- Level in Reactor 1 < 72.5%
- Column feed not cut off

**Permissives to empty product batch from Reactor 1:**
- No emergency shutdown
- Not feeding Reactor 1
- Level in Reactor 1 >= 90%

**Permissives to open additive valve to Reactor 1:**
- No emergency shutdown
- Not feeding Reactor 1
- Level in Reactor 1 >= 72.5%
- Reactor pressure < 50 psig
- Reactor 1 not emptying

**Permissives to open vent on Reactor 1:**
- Emergency shutdown
  - OR
  - Reactor pressure >= 50 psig

---

**Calendar of Events**

Get a quick overview of the ISA PUPID events by going to the Calendar at: [https://www.isa.org/division/pupid/events/](https://www.isa.org/division/pupid/events/)

**2015 BLRBAC Meetings**

**Fall Meeting:** October 5 – 7, 2015
[www.blrbac.org](http://www.blrbac.org)

**China Paper 2015**

**22nd International Exhibition & Conference**
10/14/2015 to 10/16/2015
Intex Shanghai, China

**2015 ISA SPRING LEADERS MEETING**

**SATURDAY, JUNE 13, 2015 THROUGH TUESDAY, JUNE 15, 2015**
**RALEIGH MARriott CITY CENTER**
**RALEIGH, NC**
Come meet your leaders & get involved!

**2015 ISA PROCESS CONTROL & SAFETY SYMPOSIUM**

**MONDAY, NOVEMBER 9, 2015 THROUGH THURSDAY, NOVEMBER 12, 2015**
**HOUSTON WESTCHASE MARRIOTT**
**HOUSTON, TX**

**2015 ISA FALL LEADERS MEETING**

**FRIDAY, OCTOBER 9, 2015 THROUGH TUESDAY, OCTOBER 13, 2015**
**LOUISVILLE, KY**
Come meet your leaders & get involved!

**ABTCP 2015-48th Pulp & Paper International Congress & Exhibition**
10/6/2015 to 10/8/2015
Transamerica Expo Center
Sao Paulo, Brasil
Table 702A

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Top Pressure (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>511</td>
</tr>
<tr>
<td>1.0</td>
<td>520</td>
</tr>
<tr>
<td>1.5</td>
<td>510</td>
</tr>
<tr>
<td>2.0</td>
<td>491</td>
</tr>
<tr>
<td>2.5</td>
<td>469</td>
</tr>
<tr>
<td>3.0</td>
<td>460</td>
</tr>
<tr>
<td>3.5</td>
<td>468</td>
</tr>
<tr>
<td>4.0</td>
<td>489</td>
</tr>
<tr>
<td>4.5</td>
<td>510</td>
</tr>
<tr>
<td>5.0</td>
<td>520</td>
</tr>
<tr>
<td>5.5</td>
<td>512</td>
</tr>
<tr>
<td>6.0</td>
<td>489</td>
</tr>
<tr>
<td>6.5</td>
<td>469</td>
</tr>
<tr>
<td>7.0</td>
<td>460</td>
</tr>
<tr>
<td>7.5</td>
<td>470</td>
</tr>
<tr>
<td>8.0</td>
<td>490</td>
</tr>
<tr>
<td>8.5</td>
<td>511</td>
</tr>
<tr>
<td>9.0</td>
<td>520</td>
</tr>
</tbody>
</table>

Data Taken at Controller Gain = 2
Table 702B
Programmable Logic Controller Channels
(Note: Open Valve = 1 or “energized” contact;
Emergency Shutdown pushbutton pushed = 0 or “de-energized” contact)

<table>
<thead>
<tr>
<th>Channel</th>
<th>Description</th>
<th>Contact Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Discrete Inputs</strong></td>
<td></td>
</tr>
<tr>
<td>0001</td>
<td>Emergency Shutdown Pushbutton</td>
<td>Normally open</td>
</tr>
<tr>
<td>0002</td>
<td>Reactor 1 feed valve position</td>
<td>Normally open</td>
</tr>
<tr>
<td>0003</td>
<td>Reactor 2 feed valve position</td>
<td>Normally open</td>
</tr>
<tr>
<td>0004</td>
<td>Column fresh feed</td>
<td>Normally open</td>
</tr>
<tr>
<td>0005</td>
<td>Reactor 1 product</td>
<td>Normally open</td>
</tr>
<tr>
<td></td>
<td><strong>Discrete Outputs</strong></td>
<td></td>
</tr>
<tr>
<td>1001</td>
<td>Feed valve to Reactor 1</td>
<td></td>
</tr>
<tr>
<td>1002</td>
<td>Additive valve to Reactor 1</td>
<td></td>
</tr>
<tr>
<td>1003</td>
<td>Reactor 1 product valve</td>
<td></td>
</tr>
<tr>
<td>1004</td>
<td>Reactor 1 vent valve</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Analog Inputs</strong></td>
<td></td>
</tr>
<tr>
<td>5001</td>
<td>Level in Reactor 1 (percent)</td>
<td></td>
</tr>
<tr>
<td>5001</td>
<td>Pressure in Reactor 1 (percent of scale)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Memory Registers</strong></td>
<td>Value</td>
</tr>
<tr>
<td>M01</td>
<td></td>
<td>90.0%</td>
</tr>
<tr>
<td>M02</td>
<td></td>
<td>83.3%</td>
</tr>
<tr>
<td>M03</td>
<td></td>
<td>72.5%</td>
</tr>
</tbody>
</table>

This question has been taken from the Control Systems Engineering Study Guide – 3rd Edition (ISBN 1-55617-476-4); published by ISA

You can find it on the ISA Richland (Washington) section Resources microsite or by clicking on the links below:

- ISA CSE PE Review Manual
- ISA CSE PE Review Bibliography
TUNING TIP QUESTIONS

1. The plant operating time in hours per year is most nearly:
   a) 8784
   b) 8760
   c) 8640
   d) 8332
   e) 7008

2. To achieve the annual production target of 100 million pounds, the required feed rate to the column per hour is nearly:
   a) 10,449
   b) 11,030
   c) 11,610
   d) 12,976
   e) 13,352

3. If the column overhead rate is set at 11,000 pounds per hour, how many hours must a batch reactor remain on-line in order to produce a maximum quantity of product per batch?
   a) 10.5
   b) 11.0
   c) 12.0
   d) 12.2
   e) 12.9

4. When tuning the feed flow controller, which of the following statements best describes the situation?
   a) A relative gain analysis will be needed.
   b) Only integral action is needed.
   c) Internal reflux control should be used.
   d) The column temperature profile should first be examined.
   e) No derivative action should be used.

5. To obtain data for tuning the overhead pressure control loop, it is placed in closed-loop control (with no integral or derivative action) and the controller gain is increased until the loop cycles. Oscillation occurs when $K=2$. At this time, the data given in the table is collected. Using a PID controller and a quarter-amplitude-decay tuning criterion, what initial controller parameters would you select for this loop?
   a) Gain = 2.0; Integral = 4.0 mins; Derivative = 0
   b) Gain = 0.9; Integral = 3.3 mins; Derivative = 3.3 mins
   c) Gain = 0.4; Integral = 1.3 mins; Derivative = 2.0 mins
   d) Gain = 1.2; Integral = 1.0 mins; Derivative = 0.2 mins
   e) Gain = 1.2; Integral = 2.0 mins; Derivative = 0.5 mins

6. If the controller gain is set at 2.34, what would be the corresponding proportional band?
   a) 0.40
   b) 1.20
   c) 2.34
   d) 42.70
   e) 100.00

Find the answers to these questions on page 25 & 26
WELCOME TO THE 9 NEW ISA PULP & PAPER INDUSTRY DIVISION MEMBER SINCE NOVEMBER, 2014

Ernest Burton  
Coby Stone  
Ms Divya Natarajan  
Floyd Youngblood  
Mark Daugherty  
Luis Guillermo Rodriguez  
Ms Wendy Daray  
Garry W Medlin  
Ellen Van London

HERE’S A REMINDER TO THE 25 ISA PULP & PAPER INDUSTRY DIVISION MEMBERS WHO NEED TO RENEW THEIR MEMBERSHIP

Andrew C. Broomfield  
Dr. James L. Swartz  
Joshua P. Zinner  
Max Cristopher Gamarra Chura  
Jayanth Kannan  
Anisio Chagas Bernardino Alves  
David M. Scheafbauer  
Dennis H. Shreve  
Eliomar Morais Da Silva  
Eric Merritt  
Gerard F. Brady  
Gordon Baker, Jr.  
Jack Galen Pearson  
Jeffery A. Miller  
John M. Beaudry, Jr.  
Jorge Cesar Meneli  
Kyle Love  
Mark Bolduc  
Rick E. Burks, CCST  
Rui Spratley Pinto Da Silva  
William David Buie  
Regina Miller  
Nestor Ulises Rivas Figueroa  
Troy Crouch  
William T. Ridley

DON’T FORGET TO RENEW!

Nominations are being accepted for:
- President-elect Secretary
- Department Vice President-elect: - Industries & Sciences - Professional Development - Image & Membership - Strategic Planning
- Executive Board Member: - Geographic experience – 4 seats  
- Technical experience – 2 seats  
- Operational experience – 2 seats

Know an exceptional member leader? Nominate him or her for an ISA position.

To nominate, visit www.isa.org/nominate
Nomination deadline is 31 March 2015
A scholarship is a terrible thing to waste.

Students can’t win academic scholarships if they don’t apply. ISA Educational Foundation Scholarships are awarded to college or university students who demonstrate outstanding potential in the fields of automation and control. ISA scholarships cover tuition and related expenses as well as research activities and initiatives.

To guarantee consideration, students are encouraged to complete and submit an application as soon as possible. The deadline for application submission is 15 February 2015.

For more details, including answers to frequently asked questions, visit [http://www.isa.org/scholarships](http://www.isa.org/scholarships) or call ISA at +1 919-549-8411.
2015 ISA PUPID Scholarship

Meet Garrett A. Fisher

The ISA Pulp & Paper Industry Division is pleased to award its $2000 scholarship to Garrett A. Fisher, a junior pursuing a dual major in Chemical Engineering and Paper Engineering (with a Process Control option) and a member of the Lee Honors College at Western Michigan University in Kalamazoo, MI. Garrett will graduate in May, 2017 and currently has a GPA of 3.89 out of 4.00 and a member of the Dean’s List for the first three semesters at WMU.

Garrett graduated from Onsted (Michigan) Community High School in 2013 as valedictorian of his class and a four year starter on the varsity bowling team. His parents are Scott and Jennifer Fisher, both graduates of the Ohio State University with degrees in Physical and Occupational Therapy. Garrett says “yes, I was the middle child between two sisters so I definitely had an interesting childhood” and he “was the first of my family to ever go to school for a degree in engineering”. His older sister, Jackie (22 years old), attended MSU as an undergraduate in their law program before transferring to Ohio State to complete law school, and she is currently about to finish up her first year there. His other sister, Gabby (17 years old), just completed her senior year and will be attending Siena Heights University as an undergraduate in education.

Garrett goes on to say that “last summer I was employed by RockTenn in West Point, VA as a Power Plant Process Control Intern as just a freshman in the paper program. While there I learned so much about industrial processes that go on around us that I was then hired early my sophomore year (this year) by Perrigo (in Allegan, MI – a 2-hour drive to home – who can blame him), a store brand pharmaceutical company, to be a summer intern this summer in their packaging division. While there I hope to optimize their packaging systems with my specialized interest in the paper process”.

Garrett was a member of the team that won the Engineering Competition at the 2014 TAPPI Student Summit held in Syracuse, NY; and is also an active student member of the WMU T’Sai Lun (Paper Chapter) and AIChE chapter.

Garrett says “my extracurricular activities include, but are not limited to anything outdoors, especially skiing, which I am glad to say that there is plenty of in Kalamzoo, MI. I also enjoy playing basketball and bowling after a long to unwind. Finally, I have a musical passion for the drums as I enjoy the rhythms of songs”.

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ULP AND PAPER INDUSTRY DIVISION SCHOLARSHIPS
PULP AND PAPER INDUSTRY DIVISION SCHOLARSHIP

The Pulp and Paper Industry Division of The Instrumentation, Systems, and Automation Society (ISA) has established a scholarship to increase interest in the instrumentation and process control components of the pulp and paper industry. One $2000 scholarship, for either an undergraduate entering either their junior or senior year or a graduate student, will be offered for the current school year. The winner of the scholarship in their junior year is eligible to apply again for their senior year, on an equal basis with all other candidates.

Selection of the scholarship winners will be based on the Scholarship Committee's opinion of the candidate's potential contribution to the pulp and paper industry.

To be eligible to apply for the scholarships, a candidate must be:

1. Either a student member, or a dependent of a member of the Instrument Society of America.
2. Enrolled as an undergraduate leading to a bachelor's in an engineering, science, or pulp & paper program or a graduate leading to a master's degree in a pulp & paper program.
3. A junior or senior during the current school year or if a graduate student within one year of receiving the Master's degree.
4. Able to demonstrate a significant interest in the instrumentation/process control component of the pulp and paper industry.

Candidates can download the Application form complete it and return it to Patrick J. Dixon, PUPID/ISA Scholarship, 5002 Sundown Lago Vista, Texas 78645, calling (512) 771-3936, or sending an e-mail to PatJDixon@DPAS-INC.COM. To apply, candidates must send the following items to the above address, to arrive no later than February 28:

1. Completed application form. (Download the application)
2. Official transcript from the applicant's university.
3. Three letters of recommendation from persons familiar with the applicant's character, interest in the pulp and paper industry, educational accomplishments, school activities and leadership roles.

Scholarship winners will be notified by April 15. Unsuccessful candidates will be notified at the same time.

Meet the Past Winners

2015 Scholarship Winner
Garrett A. Fisher
2014 Scholarship Winner
Jennifer L. Fink
2013 Scholarship Winner
Kayla L. Young
2012 Scholarship Winner
Danielle C. Valdivia
2011 Scholarship Winner
Ryan W. Schuerger
2010 Scholarship Winner
Thomas T. Forte
2009 Scholarship Winner
Not Awarded
2008 Scholarship Winner
Not Awarded
2007 Scholarship Winner
Kyle D. Hutcheson
2006 Scholarship Winner
Not Awarded
2005 Scholarship Winner
Not Awarded
2004 Scholarship Winner
Michael A. Graff
2003 Scholarship Winner
Michael A. Graff
2002 Scholarship Winners
James A. Stockard & Mark L. Lambert
International Paper investing $150 million to upgrade Rome, GA, linerboard mill

International Paper linerboard plant in Coosa is investing up to $150 million to upgrade technology in the 60-year old paper mill. At the same time, the company is facing workforce challenges similar to other major industrial manufacturing firms.

The company finds itself in the position of needing to fill as many as 150 maintenance and operations jobs over the course of the next decade as the plant’s longtime workforce experiences a rapid rate of retirements.

“Our turnover is basically from retirement,” said Robert Heath, human resources manager at the mill. “It’s been a trickle but now it’s more than a trickle, it’s big pieces.” Heath, by the way, will be retiring this summer.

Mill manager Brant Oberg said that, over the next decade, close to 50 percent of the approximately 350 maintenance and operations employees — more than 150 longtime workers — will be eligible for retirement.

“The maintenance bubble is a little bit ahead of our production bubble,” Heath said.

Greg Aaron, learning leader for the maintenance department, said the mill has been reaching out to attract future employees through the media, through contacts with the technical schools and even into the high schools.

“We do have a long-term plan to start looking and trying to motivate folks to go into the maintenance field and production,” said Aaron.

Carl Schreier, another human resources officer at the mill, said the company just brought in 17 new employees on Jan. 5 and expects to add that many, or slightly more, at the end of March. Schreier and Oberg said IP has plans to add between 15 and 25 new employees each quarter of 2015 and possibly into 2016.

Opportunities for new hires

With the rapid changeover, Heath said new hires are in a better position than some of their predecessors to move quickly up the employment ladder.

“A person could come into a mill like this when they were 20 years old, work 30 years, and still be in the middle of the line of progression, because there wasn’t that much movement,” Heath said. “Now … somebody in this class or the next class could be in the top operating job, or a top mechanic, in a very short period of time.”

The changed situation has forced a major shift in the way International Paper is training its new hires.

“You can give them knowledge, but what we’re going to miss in the gap is experience,” Heath said. “We’ve got make that experience-gap up.”

Heath said that part of the new five-week companywide training program is an integration. The Rome mill has a lot of employees who have never been outside of their own department, he said, but this year’s new hires have visited them all.

“They’ve looked at every one of the processes and they have, in some ways, a better foundation than some of the people that have been out here 25 years,” Heath said.

Following the training program, each of the new employees goes out into the departments to start a 90-day probationary period.

Oberg said the training program is more about the people and how they interact, how they work together, than simply learning to use the equipment.

Mindy Jolly, one of the new hires, came to IP from a local bakery operation where she worked for more than nine years. She said she had never been through a process like the IP training.
“Just coming straight in from different companies, this is very important,” she said. “We even went to another box plant just to see what our paper does, what they make with it.”

Jolly is one of three women in the 17-member group.

Will Walker, a Georgia Northwestern Technical College graduate, joined IP after a number of years in electrical maintenance at a carpet plant in Summerville.

“They have a good reputation about how they treat their employees,” Walker said about IP. “A lot of people retire from here and I was looking for a career move.”

Walker said the training program taught him a lot about the machinery from both the mechanical and electrical standpoint. And it also taught him about other connections important to plant operations.

“We learned a lot of people skills going through this,” he said. “I’ve made 17 new friends and that’s part of the job process, too. At the end of the day, we have a bond between production and maintenance people that we would normally come in and not know.”

Jarred Ponder eagerly joined the IP mill from a position in Calhoun.

“It’s not every day that you get an opportunity to work for the world’s largest paper company,” he said.

Ponder brought a strong background in industrial maintenance and he described the five-week training period as an intense and safety-oriented introduction to the company.

“I learned a lot about the paper process,” Ponder said. “I’ve been a maintenance mechanic or electrician since 1995 and I’ve never been taught the process of actually breaking down the fibers of a tree to create linerboard, and we have gotten to see it from beginning to end.”

The Rome mill just celebrated its 60th anniversary. It broke an all-time Rome mill production record during October of last year when it produced a daily average of 2,634 tons of linerboard per day.

“That’s about a mile a minute,” said Scott Sauer.

Sauer said the mill has an annual capacity to produce about 850,000 tons of linerboard, which is used largely in boxes.

“The packaging industry as a whole is tied directly to how the consumer feels about the economy, so it’s a really good pulse for how the economy is doing,” Sauer said. “All IP containerboard mills have been give the task of making as many tons as safely as we can, because we’ve got orders for it. It’s good for Rome and good for all of our team members here.”
PCA Invests $20 Million to Expand Mill Power Plant in Minnesota

LAKE FOREST, IL--March 12, 2015--Packaging Corporation of America (NYSE:PCA) (PCA) (Lake Forest, Illinois) is investing in the future of its pulp and paper mill operations in International Falls, Minnesota.

PCA is spending $20 million to expand the mill’s power plant, which calls for adding a steam turbine and replacing vintage equipment.

Last March, PCA purchased a used, 57-megawatt General Electric (NYSE:GE) (Fairfield, Connecticut) steam turbine from a site in Millinocket, Maine.

CORPORATE STRATEGY: SKG, IP silent over reports of rumored £6 billion takeover bid from IP for Smurfit Kappa

Smurfit Kappa Group (SKG) has declined to comment on reports that it might be snapped up by the US-based packaging giant International Paper (IP).

Several major UK papers, including The Sunday Times and The Telegraph, wrote that IP is working on a potential takeover bid for Smurfit Kappa worth over £6 billion ($8.7 billion).

IP reportedly had consultations with Deutsche Bank advisers over making a bid for SKG, according to The Telegraph.

Contacted by RISI, SKG said that it would not comment on “recent speculation.” IP is taking a similar stance, saying that it “does not comment on rumors or speculation.”
International Paper to Expand Fluff Pulp Capacity

International Paper has announced plans to invest $135 million to expand fluff pulp production at its Riegelwood NC Mill. The investment will convert the mill to 100 percent fluff and softwood pulp production, adding an incremental 400,000 tons of capacity, with ongoing flexibility to shift between the two products. When the conversion is complete, the company will have the capability to produce up to 1.4 million tons annually of high-quality fluff. The new fluff pulp capacity is expected to ramp up mid-year 2016.

"The investment at Riegelwood proactively repositions assets to serve our customers in the growing global fluff pulp market and best positions International Paper to increase shareholder value," said Mark Sutton, chairman and CEO, International Paper.

Fluff pulp, which is projected to grow globally at an annual rate of 3 to 4 percent, is used in a variety of applications including baby diapers, feminine hygiene and adult incontinence products. "This new capacity will support the growth of IP customers across the globe," said Mike Amick, senior vice president, North American Papers & Pulp and Consumer Packaging. "Riegelwood is ideally located with access to fiber and proximity to shipping ports critical for supplying a global customer base." With the current expertise at Riegelwood, combined with world-class pulp operations in Franklin, VA, Georgetown, SC, and Pensacola, FL, International Paper is set to build on its proven track record of success in the fluff pulp market.

As a result of the Riegelwood Mill conversion to 100 percent fluff and softwood pulp, the company will reduce its coated paperboard capacity by 350,000 tons, sell the Carolina brand to MeadWestvaco (MWV), and focus the business on supplying customer demand in the food service and packaging markets. The sale of the Carolina business, which represents the majority of the coated paperboard volume reduction, is expected to close April 30, 2015. Terms of the sale were not disclosed. Carolina is a premier coated bristols brand used in a variety of applications including greeting cards, book covers and marketing collateral. The sale captures the brand's value, supports International Paper's plans to expand fluff pulp production at Riegelwood and streamlines and strengthens its coated paperboard business.

"International Paper's printing papers and coated paperboard businesses remain strategic to the company and these moves capture value while allowing for strategic repositioning and growth," Amick said. International Paper is well positioned to support current and future coated paperboard customer demand from its two world-class mills in Texarkana, TX, and Augusta, GA.

AspenTech To Host OPTIMIZE 2015

April 15, 2015 BEDFORD, MASS.--(BUSINESS WIRE)--

Aspen Technology, Inc. (NASDAQ: AZPN), a leading provider of optimization software for the process industries, is pleased to announce that the upcoming OPTIMIZE™ 2015 conference will take place at The Westin Waterfront Hotel in Boston, from May 4-6, 2015. OPTIMIZE 2015 is the world's only global conference focused exclusively on helping firms in the process industries achieve operational excellence. More than 600 decision makers and practitioners from 40 countries will attend the conference representing the Energy, Chemicals, Engineering and Construction industries, as well as the Pharmaceutical, Power, Metals & Mining, Pulp & Paper, and Biofuels industries.

Greg Bram, Senior Vice President Supply Chain Optimization, Valero Energy Corporation will join AspenTech President and Chief Executive Officer, Antonio Pietri, and Chief Technology Officer and Executive Vice President of Research and Development, Manolis Kotzabasakis, for the opening session of this global conference. Greg Bram will offer insights on the most significant issues facing oil refiners and other energy firms today, including: the role of technology, how the industry needs to evolve to provide long-term economic growth, and critical success factors for driving operational excellence to achieve best-in-class operations.

Attendees will have an opportunity to discuss their experiences using the aspenONE® software platform while highlighting new ways to improve plant efficiency and worker productivity, reduce operating costs, and lower energy consumption and carbon footprints. Process industry leaders will also gather at OPTIMIZE 2015 to:

- **Discover:** How to improve operations by increasing energy efficiency, boosting yield performance, and maximizing asset utilization.

- **Learn:** About innovations that improve the reliability of their operations, from planning the business, to running plants and executing capital projects.
• **Share:** How software can enable increased business impact from employees - whether new or experienced - in the organization.

A variety of aspenONE solutions will be highlighted in educational tracks and live demonstrations throughout the event, which will focus on Integrated Engineering Workflow for Chemicals and Energy, Advanced Process Control, Manufacturing Execution Systems, Petroleum Supply Chain, and Supply Chain Management.

For the latest event information, including registration, keynote speaker highlights, track session updates and call for papers, visit the [OPTIMIZE 2015 website](#).

**Supporting Quotes**

*Manolis Kotzabasakis, Chief Technology Officer and Executive Vice President of Research and Development, AspenTech*

“The process manufacturing industry is facing globalization, volatility and increased environmental and safety regulations, driving the need for software solutions that design, operate and manage manufacturing environments more effectively. At OPTIMIZE 2015, AspenTech customers, thought leaders, industry influencers, and process manufacturing experts from around the world will come together to share compelling insights that will put operational excellence in place today while laying the foundation for operational innovation tomorrow.”

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**About OPTIMIZE 2015**

AspenTech’s OPTIMIZE 2015 is the only conference dedicated to the exchange of engineering, manufacturing, and supply chain best practices for the process industries. Sponsors include Platinum Sponsor Accenture, and media sponsors Control Magazine and Hydrocarbon Processing.

**About AspenTech**

AspenTech is a leading supplier of software that optimizes process manufacturing – for energy, chemicals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs and become more energy efficient. To see how the world’s leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit [www.aspentech.com](http://www.aspentech.com).

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**Emerson Automates India’s First State-Owned 800-MW Supercritical Power-Generating Unit**

**News | April 8, 2015**

MUMBAI, INDIA--(BUSINESS WIRE)--

Emerson Process Management, a global business of Emerson (NYSE: EMR), has completed automating a new 800-megawatt, supercritical thermal power-generating unit owned by APPDCL, a special purpose entity of APGENCO, the Andhra Pradesh state government power generation utility. This is the first state-owned supercritical power station being built in India. Located in Krishnapatnam, the Sri Damodaram Sanjeevaiah Thermal Power Station is a USD 2 billion investment by APGENCO that will provide new, low-emissions generation capacity to support the region’s rapid economic growth.
The new power station uses supercritical boiler/turbine technology that operates at a higher temperature than traditional coal-fired units, boosting the efficiency of electricity generation while reducing carbon and other emissions. Emerson’s automation technology has been selected for more than 300 of these complex units worldwide, 10 of which are located in India.

Emerson was selected as the main automation contractor by TATA Projects Ltd., the engineering, procurement and construction (EPC) contractor for critical sections of the plant. The first unit at Sri Damodaram Sanjeevaiah is ready to begin commercial operations; Emerson is currently automating the second unit at the site, which is expected to be completed this spring.

Mr. A.S. Bhattacharya, Project Director, TATA Projects Limited, commented, “As prime EPC contractor it was a challenging task to work with many stakeholders. Strong support from key partners like Emerson Process Management played an important role in the successful completion of this highly complex project.”

According to APPDCL, the supercritical units are performing exceedingly well and this new power station will provide a reliable source of electricity for Andhra Pradesh. Emerson’s experience and expertise in managing large, complex supercritical projects provides the confidence that the full benefits of these new units will be gained.

“Over the coming years, India will see several more plants powered by supercritical technology, which are more cost efficient and help protect the environment,” said Dr. Amit Paithankar, managing director of Emerson Process Management India. “Emerson’s technologies play a key role in this project, which is a very important asset for economic growth in Andhra Pradesh and the country.”

At the new unit, Emerson’s Ovation™ distributed control system monitors and controls plant equipment and processes including the boiler, water treatment system and other critical balance-of-plant processes. Emerson also installed its Rosemount® measurement and analytical technologies to monitor sections of the plant for optimal performance.

About Emerson Process Management

Emerson Process Management (www.emersonprocess.com), an Emerson business, is a leader in helping businesses automate their production, processing and distribution in the chemical, oil and gas, refining, pulp and paper, power, water and wastewater treatment, mining and metals, food and beverage, life sciences and other industries. The company combines superior products and technology with industry-specific engineering, consulting, project management and maintenance services. Its brands include PlantWeb™, Syncade™, DeltaV™, Fisher®, Micro Motion®, Rosemount®, Daniel™, Ovation™, and AMS Suite.

About Emerson

Emerson (NYSE: EMR), based in St. Louis, Missouri (USA), is a global leader in bringing technology and engineering together to provide innovative solutions for customers in industrial, commercial, and consumer markets around the world. The company is comprised of five business segments: Process Management, Industrial Automation, Network Power, Climate Technologies, and Commercial & Residential Solutions. Sales in fiscal 2014 were $24.5 billion. For more information, visit www.Emerson.com.

MWV and RockTenn announce executive leadership team

By Mon, Mar 23, 2015

MeadWestvaco Corporation (MWV) and Rock-Tenn Company (RockTenn) announced the executive leadership team for the combined company following the completion of the transaction. As previously announced, Steve Voorhees will serve as the new company's chief executive officer and John Luke will be non-executive chairman of the board.

"The announcement of our executive leadership team marks an important milestone in the merging of our companies," said Voorhees, chief executive officer of RockTenn. "I am confident that this is the right team with the right expertise to execute our core strategies to succeed in paper and packaging markets and to create significant value for our shareholders."

"Together, MWV and RockTenn are creating the premier global packaging company, unrivaled in terms of capabilities, customers and reach," said Luke, chairman and chief executive officer of MWV. "We have drawn from the best talent of each company to build a leadership team that is unmatched in the industry, with the commercial, operational and financial expertise to drive our business forward and generate substantial shareholder value."
The executive leadership team announced today includes:

- Bob Beckler, president, Packaging Solutions
- Nina Butler, chief sustainability officer
- Ward Dickson, chief financial officer
- Pete Durette, chief strategy officer
- Jennifer Graham-Johnson, chief human resources officer
- Bob McIntosh, general counsel
- Jim Porter, president, Paper Solutions
- Linda Schreiner, chief integration officer

Ed Rose, president, Specialty Chemicals, and Ken Seeger, president, Community Development and Land Management, will continue in their current leadership roles and report to Voorhees.

The transaction remains on track to close in the second calendar quarter of 2015 and is subject to shareholder approvals of both MWV and RockTenn, certain regulatory approvals and other customary closing conditions.

Bob Beckler, president, Packaging Solutions, is currently executive vice president, MWV, and president of packaging. Since joining MWV in 1987, Beckler has held a variety of roles in research, business development and leadership across specialty chemicals, industrial packaging and the company's core packaging business.

Nina Butler, chief sustainability officer, is currently senior vice president and senior environmental counsel, RockTenn. Butler joined RockTenn in 2011 with the acquisition of Smurfit-Stone, where she served as senior environmental counsel.

Ward Dickson, chief financial officer, is currently executive vice president and chief financial officer, RockTenn. Prior to joining RockTenn in 2013, he served as senior vice president of finance for the global sales and service organization of Cisco Systems.

Pete Durette, chief strategy officer, is currently senior vice president of strategy, MWV, and leader of the Home, Health & Beauty segment. Since joining MWV as vice president and chief strategy officer in 2009, Durette has helped reshape the company's portfolio, leading many of its major growth initiatives and investments. Prior to joining MWV, Durette was with Textron, Inc. and Marakon Associates.

Jennifer Graham-Johnson, chief human resources officer, is currently executive vice president, human resources, RockTenn. Graham-Johnson joined RockTenn in 1993 in risk management and has since served in a variety of leadership roles for the company, including director of benefits and senior vice president, employee services.

Bob McIntosh, general counsel, is currently executive vice president, general counsel and secretary, RockTenn. He was senior vice president, general counsel and secretary from 2000 to 2008, and vice president and general counsel from 1995 to 1999.

Jim Porter, president, Paper Solutions, is currently in the same role at RockTenn, leading the company's containerboard, paperboard and pulp mills, as well as the forest resources organization, recycling business and sales of containerboard, paperboard, recycled fiber and pulp. Previously, Porter served as president of corrugated packaging. Porter joined RockTenn in 2008 with the acquisition of Southern Container Corp., where he was president and chief operating officer.

Linda Schreiner, chief integration officer, is currently senior vice president, human resources, communications and the MWV Foundation, MWV. Schreiner oversees organization strategy and development, talent management and total rewards for MWV's global workforce. Prior to MWV, Schreiner was with Arthur D. Little and Signet Bank.

About RockTenn

RockTenn is one of North America's leading providers of packaging solutions and manufacturers of containerboard and paperboard. RockTenn's 27,000 employees are committed to exceeding their customers' expectations - every time. The company operates locations in the United States, Canada, Mexico, Chile and Argentina.

About MWV

MeadWestvaco Corporation is a global packaging company providing innovative solutions to the world's most admired brands in the healthcare, beauty and personal care, food, beverage, home and garden, tobacco, and agricultural industries. The company also
produces specialty chemicals for the automotive, energy, and infrastructure industries and maximizes the value of its development land holdings. MWV's network of 125 facilities and 15,000 employees spans North America, South America, Europe and Asia.

**Mercer’s Celgar mill taking annual maintenance shut in BC; ‘critical job’ involves recovery boiler**

CASTLEGAR, BC, March 12, 2015 (Local News) -

An annual major maintenance shutdown at Zellstoff Celgar will start Saturday at 6:30 p.m.

According to a statement issued by the pulp mill, the critical job for this shutdown is the inspection and repair of the recovery boiler, which recovers spent cooking liquor and converts it to green liquor which is in turn converted into white liquor by the addition of lime, and returned to the fibre cooking cycle.

It takes approximately 36 hours to shut down the mill so the majority of maintenance in most areas will officially begin on Monday. Some areas, like the recovery boiler, can take up to 60 hours to be taken offline and the maintenance work there will not begin until Tuesday.

Once the work in all areas has been completed, the mill will begin start-up procedures using detailed safety and operational check sheets. It generally takes about 1.5 days to bring the mill back up to full running rates. The expected date to begin startup is March 23.

The annual shutdown is required to allow the company to inspect major pieces of production equipment and repair any deficiencies to help ensure the mill is in good order to run reliably for the next year. A lot of the work is preventative, much like doing regular maintenance on our vehicles.

Other maintenance include digester equipment inspection and repair and lime kiln refractory replacement.

One of several capital projects to be completed during the shutdown is the replacement of the motor speed controls on one of the two pulp machines.

The current drive line up is 22 years old and like other electronics has become outdated and difficult to service. The advanced technology of the new drive system should allow for better control of the rolls as the sheet progresses at variable speeds through the stages of formation, drying and baling.

The shutdown is an expensive undertaking. Total maintenance costs for this outage are approximately $10 million, not including the capital investments or revenue lost while the mill is not producing pulp or power.

The nature of the pulping process requires corrosion resistant materials that are often expensive. Specialized parts and equipment are purchased for the shutdown. To access many areas of the mill, elaborate scaffolds have to be constructed.

There is also the expense of additional contractors and equipment specialists brought in from across the continent.

Additionally, Celgar uses this opportunity to inspect and repair environmental control equipment including precipitators and effluent treatment systems.

The company said it takes “a great deal of care and time while taking the mill down and starting back up to prevent odour or upsets.” However, this can sometimes occur depending on atmospheric conditions during certain stages of the process and would be temporary.

The shutdown benefits not only Celgar but boosts tourism as well. At the peak of the shutdown, there will be approximately 500 additional people on site.

Most of these people will be staying in local hotels and eating in local restaurants.

In an attempt to stimulate the local economy, a significant amount of material and services will be procured from local businesses and contractors as well.
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2015 ISA PUPID Calendar

Sundays are shaded gray.重要的日期和会议标注在日历上。
This paper was selected as the best ISA paper for 2014 & awarded by 2014 ISA President Peggy Koon at the ISA Honors & Awards Gala at the Arvest Bank Theatre at The Midland in Kansas City, MO

The paper was presented at ISA Automation Week 2013 Nashville, Tennessee • Renaissance Nashville, USA 4-7 November 2013

The High Performance HMI: Proof Testing in a Real World Trial

By:

Bill Hollifield (bhollifield@pas.com)  Hector R. Perez (hperez@pas.com)
PAS Principal Alarm Management and HMI Product Manager
Consultant
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9–12 November 2015
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**Houston Marriott Westchase**
Houston Marriott Westchase

Process Control & Safety
Symposium 2015
9-12 November
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The International Society of Automation invites you to present your work at the 2015 Process Control & Safety Symposium. Papers will be considered for publication in ISA’s technical journal, ISA Transactions. Submit your abstract via email to techconf@isa.org.

Program Highlights:
Workshops, tutorials, exhibition, keynote speakers, paper presentations, and exhibits include input from ISA’s Chemical & Petroleum Industries Division, Communications Division, Education Division, and Pulp and Paper Division.

Guidelines for Submission:
• Authors and speakers in attendance must pay registration fee
• 500-word (max) abstract in English shall be submitted by email or online
• Final presentations must be on the official ISA Symposium template
• Papers accepted for publication and presentation will require completion of the ISA’s Rights and Responsibilities form

Important Deadline Dates:
Abstracts ..............21 January 2015
Draft Papers............25 March 2015
Final Papers.............20 May 2015

The lead author is the main contact. Submit your abstract via email to: kbbehidan@bkppl.com and techconf@isa.org.

Suggested Topics:
Instrumentation
• Variability, Instrument Calibration
• Automation and Control Systems
• Flow Measurement Technology
• Field Calibration Technology

Communications
• Communications in SIL, ISA100
• Wireless Technology in the Plant Floor
• Field Instrumentations: Wireless, Foundation Fieldbus, and Other Smart Technologies
• Bridging Prices Between SCADA and DCS

Control Systems
• Process Optimization
• Fieldbus Control Systems with Focus on Higher SIL
• Control System Strategies, Advanced Control
• Instrumentation for Floating LNG Facilities
• Automation and Control in Petroleum and Petrochemical Terminals
• System Integrations
• Advanced HMI and Alarm Management
• Data and Document Storage in EDMS and Asset Management
• Troubleshooting, Optimization, and Application in Petroleum and Chemical Process Industries
• Safety Instrumented Systems
• Cybersecurity

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http://www.hit.fi/English/

**HELSDINK UNIVERSITY OF TECHNOLOGY**
http://www.hut.fi/English/

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Get a quick overview of ISA PUPID events by going to the Calendar at:
https://www.isa.org/division/pupid/events/
## World Corners

### Canada Corner
Nothing from anyone there this time!

### Central & South American Corner
Nothing from anyone there this time!

### Far East Corner
Nothing from anyone there this time!

### From the Land of the Midnight Sun
Nothing from anyone there this time!

### European Corner
Nothing from anyone there this time!
ANSWERS TO THE TUNING TIP

1. )
   On-stream factor = 0.95
   
   \[ 365 \text{ days} \times 24 \text{ hours/day} \times 0.95 = 8322 \text{ hours for 1 year} \]

2. )
   100,000,000 pounds/year \times \text{year} / 8322 \text{ hours} = 12,016.3 \text{ lbs/hr}
   
   Let \( x = \text{column output} \)
   
   Column Feed IN + Additive IN = 12,016.3 \text{ lbs/hr}
   
   \[ X + 0.15 \times x = 12,016.3 \text{ lbs/hr} \]
   
   \[ 1.15 \times x = 12,016.3 \text{ lbs/hr} \]
   
   \[ x = 10,448.9 \text{ lbs/hr} \]
   
   Column feed = column output / 0.9 (90% column overhead product)
   
   \[ = 10,448.9 \text{ lbs/hr} / 0.9 \]
   
   = 11,610 \text{ lbs/hr}

3. )
   Overhead rate = 11,000 lb/hr
   
   \[ = 11,000 \text{ lb/hr} / (8.33 \text{ lb/gal} \times 0.90) \]
   
   = 1467 gal/hr
   
   Additive = 11,000 lb/hr \times 0.15 lb/lb
   
   \[ = 11,000 \text{ lb/hr} / (8.33 \text{ lb/gal} \times 0.80) \text{ (S.G. of additive)} \]
   
   = 247.6 gal/hr
   
   Total feed rate = 1467 gal/hr + 247.6 gal/hr
   
   \[ = 1714.6 \text{ gal/hr} \]
   
   Given Reactor Volume 90% Max Level
   
   20,000 gals \times 0.90 = 18,000 gal capacity
   
   Book answer = 18,000 gal / 1714.6 gal/hr = 10.5 hours
   
   Better answer
   
   18,000 gals \times \left( \frac{1467 \text{ gal/hr}}{1714.6 \text{ gal/hr}} \right)
   
   = 15,383 gal
   
   15,383 gal overhead / 1467 gal/hr = 10.5 hours
4. )
   B and D make no sense
   C who knows what it means
   A relative to what?

   That leaves E

   Derivative is used when a quick response to a process change is needed. Derivative tends to de-stabilize a system.

5. )
   \( k_u = 2 \) (Period from Table 702A = 4 min measured from peak to peak)
   \( K = (0.6) k_u = (0.6) (2) = 1.2 \)
   \( T_i = (0.5) P_u = (0.5) (4) = 2 \text{ min} \)
   \( T_d = (0.125) P_u = (0.125) (4) = 0.5 \text{ min} \)

6. )
   Proportional band \( = \frac{100.0}{K} = \frac{100.0}{2.34} = 42.7 \)
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ADDRESS CORRECTION REQUESTED