Well, as I write this next weekend will be the Memorial Day holiday here in the United States and summer is just around the corner!

I've been pretty busy learning a new DCS here in Port Townsend; but it’s always good to learn new things, right?

In this Spring “Logger” newsletter, I am republishing a presentation entitled "Lime Kiln and Recaust -Tighten up the energy efficiency and availability of the lime kiln while improving reburned lime" by Timo Laurila of Metso. You can see the presentation by clicking on the link on page 14.

In the last quarter, PUPID has lost 30 members and dropped below 300 to 286 members; but we have had thirteen (13) new members.

Last month we awarded the 2017 ISA Pulp & Paper Industry Division Scholarship. Go to page 15 in this newsletter to meet the recipient, Garrett Fisher.

There is a Call for Papers currently out for the 2017 Process Control & Safety Symposium which will be at the Westchase Marriott in Houston on the second week of November. Come on down to Houston and let your inner cowboy out!

Please do not hesitate to contact me at Brad S. Carlberg, P.E., CSE or to discuss how you can help PUPID.

I hope to encourage you to become more involved with the Division and to enroll more members.

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:**

**LEVEL MEASUREMENT: SPAN AND RANGE CALCULATION PRACTICE**

(Taken from the “Control Systems Engineering (CSE) Study Guide” – 5th Edition; published by ISA; Copyright 2012; ISBN: 978-1937560-03-4)

Determine the values for each category in the three systems.

a. LRV  
b. URV  
c. Range  
d. Span  
e. Elevated or Suppressed Range

Find the answers to these questions on page 18
WELCOME TO THE 13 NEW ISA PULP & PAPER INDUSTRY DIVISION MEMBERS

Maggie McCoy  Andrew Hanes  Tom Driedger
Fábio Miki      Max Leach      Michael Warnick
Vijayan Raju    Chris Wilson   Sean Murphy
Aaron Colby    Brent Hamilton  Carol M. Schafer
Francois Ruel

HERE’S A REMINDER TO THE 28 ISA PULP & PAPER INDUSTRY DIVISION MEMBERS WHO NEED TO RENEW THEIR MEMBERSHIP

Almuhannad Aljohani  Jesse Thibodeau  Christopher Wyshynski
Jerry J. Cannon      Terry W. Warner  Michael Adams Jr
Adriano Costa        Anomitro Bhowmick  Chris D. Bassett
Anant Dixit          Cintia Guedes    Shane Bernard
Timothy Guy          Jorge Cesar Meneli  Mrs. Beverly T. James
Dariusz Kordas       Brandon Miller   Jason Lapp
Mr Maximiliano Ludewig  Timothy F. Murphy  Anand Sn
Saul Emmanuel Mtakula  Rajan Ramanuj    Francisco Soto
Gene Olmstead        Dr Mohan Kumar S  Muhammad Usman Younis
Masum Shah

DON’T FORGET TO RENEW!
WHO’S DOIN’ ANYTHING?
Tranlin delays $2 billion pulp and paper mill in Virginia; new technology in China will slow project targeted for 2020

May 03, 2017
CHESTERFIELD COUNTY, VA, May 3, 2017 (Local News) - A showcase, $2 billion paper mill planned for eastern Chesterfield County will be delayed as the Chinese-owned company incorporates new technology overseas.

An official with Tranlin Inc., which is also known as Vastly, told the Observer that the delay is due to the parent company’s recent, unexpected success with a new “pulping, paper making and biostimulant fertilizer manufacturing facility in China.”

“Early indications from performance testing show that there will be significant efficiencies that will impact all aspects of Tranlin’s U.S. business plans,” Lisa Randall, associate director of corporate communications for Tranlin, said in an emailed statement.

Chesterfield Observer - Tranlin delays $2 billion paper mill; New technology overseas will slow county project

Andritz to supply five circulating fluidized bed boilers to Nine Dragons Paper

GRAZ, Austria, May 15, 2017 (Press Release) - International Technology Group ANDRITZ has received an order from Nine Dragons Paper (Holdings) Ltd. to supply a total of five circulating fluidized bed boilers (Powerfluid) for utilization of in-house residual materials. The boilers will be installed at the company’s locations in Taicang, Quanzhou, Yongxin, Chongqing, and Dongguan. Start-up is scheduled for the second half of 2018.

Only waste from recycling of waste paper (rejects, sludges) undergoes thermal utilization, and the high-pressure steam produced is used to generate electricity and supply the Nine Dragons paper mills with process steam.

Rejects and sludge are a considerable challenge in boiler operations due to the corrosive substances and impurities they contain, and they require a special design in this regard. As global market leader in this field, ANDRITZ has extensive know-how with numerous references worldwide and offers fluidized bed boilers for these special fuels.

Nine Dragons Paper is the largest paper producer in Asia and leads the field in resource-saving paper production, observing the most stringent environmental standards. The five plants ordered from ANDRITZ are also designed for significantly lower flue gas emissions than those required by European legislation. The order from Nine Dragons Paper confirms ANDRITZ’s leading position in circulating fluidized bed technology and is also ANDRITZ’s return to the Chinese power boiler market after an absence of almost 20 years.
WHO’S DOIN’ ANYTHING? (CONTINUED)

The ANDRITZ GROUP
ANDRITZ is a globally leading supplier of plants, equipment, and services for hydropower stations, the pulp and paper industry, the metalworking and steel industries, and for solid/liquid separation in the municipal and industrial sectors as well as for animal feed and biomass pelleting. Other important business segments include automation and service business. In addition, the international Group is also active in the power generating sector (steam boiler plants, biomass boilers, recovery boilers, and gasification plants) and in environmental technology (flue gas cleaning plants) and offers equipment for the production of nonwovens, dissolving pulp, and panelboard as well as recycling plants. The publicly listed technology Group is headquartered in Graz, Austria, and has a staff of approximately 25,200 employees. ANDRITZ operates more than 250 sites in over 40 countries.

Valmet to supply new bleaching plant for CENIBRA's Belo Oriente pulp mill

ESPOO, Finland, May 2, 2017 (Press Release) - Valmet has been selected as supplier for a new bleaching plant to be installed at CENIBRA's pulp mill in Belo Oriente in Brazil. The new plant will have the capacity to produce 500,000 tonnes of pulp per year. Start-up is scheduled to be in April, 2018.

The order was included in Valmet’s fourth quarter 2016 orders received. A typical value for this scope of supply is around EUR 30-50 million.

The new bleaching plant, equipped with Valmet's modern TwinRoll press technology, will replace the original plant, dated from 1977, that is based on vacuum filter technology. The bleach plant renewal utilizing the most advanced existing washer technology, is part of CENIBRA's project for fiberline modernization.

"Along the years, CENIBRA has searched the balance between the production activities and environmental performance, always looking for the process improvement of pulp production through implementation of environmentally sustainable projects and technological innovations, as this new bleaching plant," mentioned the Industrial Director and Technician, Róbinson Félix from CENIBRA.

"By upgrading individual key process parts in chemical pulping to latest technology, it is possible to reach significant reductions in environmental impacts, and at the same time, increase the performance of the production process. We are very pleased that CENIBRA appreciates our bleach plant technology and that we got their confidence to deliver this important project," says Stefan Mattson, Vice President, Fiber Processing, Valmet.

About the customer CENIBRA
WHO'S DOIN' ANYTHING? (CONTINUED)

Celulose Nipo-Brasileira S.A. - CENIBRA is one of the biggest world producers of bleached eucalyptus pulp (hardwood). Their annual production is approximately 1,200,000 tons, which more than 90% is exported for external market. CENIBRA operates in 54 municipalities of Minas Gerais state. Since July 2002, CENIBRA produces only ECF (Elemental Chlorine Free) pulp. As recognizing of the work with highest international standards of excellency CENIBRA is certificated in standards ISO 9001 / ISO 14001 / ISO IEC 17.025 and has the Forest Stewardship Council - FSC certificates and the National Program of Forestall Certificate (CERFLOR). The pulp traceability can be done from the forest to customer or from the customer to forest.

Valmet is the leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries. We aim to become the global champion in serving our customers. Valmet’s strong technology offering includes pulp mills, tissue, board and paper production lines, as well as power plants for bioenergy production. Our advanced services and automation solutions improve the reliability and performance of our customers' processes and enhance the effective utilization of raw materials and energy. Valmet's net sales in 2016 were approximately EUR 2.9 billion. Our 12,000 professionals around the world work close to our customers and are committed to moving our customers' performance forward - every day. Valmet's head office is in Espoo, Finland and its shares are listed on the Nasdaq Helsinki.

Texas A&M AgriLife Research finds lignin from pulp and paper process can be used to make other products 'from tennis rackets to cars'

May 16, 2017

COLLEGE STATION, TX , May 16, 2017 (Press Release) -Waste material from the paper and pulp industry soon could be made into anything from tennis rackets to cars.

“We have overcome one of the industry’s most challenging issues by discovering how to make good quality carbon fiber from waste,” said Dr. Joshua Yuan, Texas A&M AgriLife Research scientist and associate professor of plant pathology and microbiology in College Station.

The research was published recently in Green Chemistry, the peer-reviewed journal of the Royal Society of Chemistry.

“People have been thinking about using lignin to make carbon fiber for many years, but achieving good quality has been an issue,” Yuan said.

About 50 million tons of lignin — or structural part of a plant — piles up each year as waste from the U.S. paper and pulping industry, he said. Additional lignin could come from biorefineries that use plants to produce ethanol, yielding another 100 million to 200 million tons of lignin waste each year. Yet only about 2 percent of the lignin waste is currently recycled into new products, Yuan said.

“Lignin is considered as one of the most abundant biopolymers in the world,” he said. “All this waste accumulates, and it will be great to use it for something.”

Yuan’s research team has had several successes in making fuel and bioproducts from lignin. But even the biofuel making process leaves a large stockpile of waste. That led them to consider the possibility of making carbon fiber material.

Carbon fiber is not a new concept. It has been toyed with since 1860 — mostly for light bulbs originally — and is known for high strength, low weight and heat tolerance.

But it has been expensive to produce by traditional means.

“If you cannot produce quality carbon material, it’s really not useful,” Yuan said.

So the team examined lignin more closely.

“What we found is that lignin is a mixture of many molecules of many sizes and different chemical properties. Through fractionation, we separated lignin into different parts, and then we found that certain parts of lignin are very good for high quality carbon fiber manufacturing,” he explained.

The researcher noted that lignin is a complex molecule, but when the high-density, high molecular weight portion is separated from the rest, it has a uniform structure that allows the formation of high quality carbon fiber.

“We are still improving and fine-tuning the quality, but eventually this carbon fiber could be used for windmills, sport materials and even bicycles and cars,” he said. “Carbon fiber is much lighter but has the same mechanical strength as other materials used for those products now. This material can be used for a lot of different applications.
WHO’S DOIN’ ANYTHING? (CONTINUED)

“The beauty of this technology is that it allows us to use lignin completely. Basically what we do is fractionate lignin so that the high molecular weight fraction can be used for carbon fiber and the low molecular weight fraction can be used for bioplastics and products like asphalt binder modifier used on roads.”

Yuan envisions a multi-stream integrated biorefinery in which lignin is separated in one location so that a variety of materials — the high density carbon fibers and the low density bioplastics, along with biofuels from plant feedstock like grasses — could be made at one facility.

“When we are able to use the same biomass to produce different things, that allows the best economic return by being sustainable,” he said. “Eventually that would lead to increasing jobs and enhancing rural economic growth.

“And the entire supply chain is in the United States, which means the jobs would be here. The biomass is grown, harvested and transported here. It would be difficult to ever ship that much waste to another country for production. It all stays here,” Yuan said. “It would put agriculture production and industry together in a bioeconomy making renewable products.”

His research is supported with a grant from the U.S. Department of Energy Bioenergy Technology Office.

Source: Texas A&M AgriLife Research

Valmet's advanced process control application and DNA FBB combustion manager improves combustion for biomass boiler at WestRock's mill in Covington, VA

May 04, 2017

ESPOO, Finland, May 4, 2017 (Press Release) - Valmet's Advanced Process Control (APC) application, Valmet DNA FBB Combustion Manager, has improved combustion for the biomass boiler at WestRock's Covington mill in Virginia, USA.

By optimizing combustion, the mill has been able to maximize and increase the main steam output of the biomass boiler beyond the maximum continuous rating (MCR). Other benefits include more stable and controlled boiler steam output as well as improved operational uniformity across shifts, furnace symmetry and spray valve control. Valmet's APC application estimates the British thermal units (BTU) of the biomass fuel in real time and ensures a consistent optimum fuel power-to-air ratio.

The application has lowered the average O2 by about 0.3 percentage points, which improves boiler efficiency, reduces NOX emissions and subsequently minimizes NH3 consumption. Additionally, Valmet's advanced load controller now properly allocates the fuel demand between the feeders, taking into account any control and/or mechanical process limitations.

"This improvement has enabled us to run a higher, more stable load, resulting in a record-setting steaming average the following month," says Barry Hensley, Powerhouse Superintendent, WestRock.

The combustion control application is part of the boiler plant's Valmet DNA automation system. In 2012, Valmet was chosen as the automation supplier for the new biomass bubbling fluidized bed boiler at the Covington mill. The scope of the system included the boiler, Balance of the Plant, auxiliaries and a training simulator. Valmet's strong project execution team and close cooperation with Covington personnel made it possible to meet the challenging project deadlines.

"Valmet's commitment to a shared journey forward together with the Covington mill is how the APC project came about. The ROI for the project was less than six months. With our solution and biomass expertise, and working together with the mill's personnel, we were able to exceed all the project targets," says David Eapen, Solution Manager, Automation, Valmet.

Technical information about Valmet's Advanced Process Control

Valmet DNA FBB Combustion Manager is an advanced control application for the optimized combustion of both bubbling and circulating fluidized bed boilers. The purpose of the application is to protect the combustion process against variations in production, fuel amount, fuel quality and combustion circumstances.

As a result, Valmet DNA FBB Combustion Manager provides several environmental, operational and financial benefits, including a stabilized combustion process, increased boiler efficiency, a wider boiler operation range, minimized flue gas oxygen content, as well as minimized NOX and CO emissions.
WHO’S DOIN’ ANYTHING? (CONTINUED)

Information about the customer WestRock
WestRock partners with its customers to provide differentiated paper and packaging solutions that help them win in the marketplace. WestRock’s 39,000 team members support customers around the world from more than 250 operating and business locations spanning North America, South America, Europe and Asia.
Valmet is the leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries. We aim to become the global champion in serving our customers.
Valmet's strong technology offering includes pulp mills, tissue, board and paper production lines, as well as power plants for bioenergy production. Our advanced services and automation solutions improve the reliability and performance of our customers' processes and enhance the effective utilization of raw materials and energy.
Valmet's net sales in 2016 were approximately EUR 2.9 billion. Our 12,000 professionals around the world work close to our customers and are committed to moving our customers' performance forward - every day. Valmet's head office is in Espoo, Finland and its shares are listed on the Nasdaq Helsinki.

Valmet signs multi-year agreement for supply of maintenance services to Orora's Botany mill, Australia

May 15, 2017
ESPOO, Finland, May 15, 2017 (Press Release) - Valmet and Orora Limited have signed a multi-year agreement to continue the supply of maintenance and technology services for board making line 'B9' at Orora's Botany Mill in New South Wales, Australia.
The value of the agreement will not be disclosed. The agreement will be effective as of July 1, 2017.
Continuation of good cooperation
Valmet supplied the complete B9 containerboard line in 2012 and took full responsibility for establishing the maintenance operations, mill maintenance services, management of several improvement projects and the mill utilities since start-up.
"Valmet is one of our key partners and supports B9's operation as a world class paper mill. Orora and Valmet have worked closely together over the past five years and we have renewed the maintenance agreement to continue our cooperative relationship. The new agreement offers our business many benefits and we look forward to working with Valmet to maintain and enhance the high performance of the B9 facility," says Scott Beckett, Maintenance & Engineering Manager, Botany Mill, Orora Limited.
"We are fully engaged and integrated into one B9 team and have been working side by side to deliver steady results in all areas since the machine’s start-up. The renewal of this maintenance agreement is the best acknowledgement of what we have achieved over the years together with Orora. We're happy to share the journey forward with the B9 team to continuously improve the performance of the equipment and process, and keep B9 as a safe and stimulating place to work," says Pierre De Villiers, General Manager for Valmet in Australia and New Zealand.
Information about Valmet's delivery
Extended scope in the renewed maintenance outsourcing agreement includes a 'Booster Package' targeting clear and systematic development of planned and unplanned downtime to best in class levels. The maintenance agreement also includes comprehensive automation services, enabling the maintenance team to monitor the process, perform troubleshooting and corrections remotely, and utilize the acquired data to optimize the process operation through the Valmet Industrial Internet.
Other complementary agreements with Orora and its B9 facility include a Cooperation Agreement in which Valmet process experts and board makers work together to optimize various processes.
About Orora Limited
Orora Limited is a AUD 3.8 billion public company, offering a range of tailored packaging and visual communication solutions. The company employs more than 6,500 people across 131 sites in seven countries. Orora is headquartered in Melbourne, Australia and is listed on the Australian Securities Exchange.
WHO’S DOIN’ ANYTHING? (CONTINUED)

Located in Botany, New South Wales, Orora's Botany Mill produces high quality recycled packaging paper, which is then primarily converted into corrugated board by Orora's Fibre Packaging business in Australia and New Zealand. Valmet is the leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries. We aim to become the global champion in serving our customers.

Valmet's strong technology offering includes pulp mills, tissue, board and paper production lines, as well as power plants for bioenergy production. Our advanced services and automation solutions improve the reliability and performance of our customers' processes and enhance the effective utilization of raw materials and energy.

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Italy's Sael to rebuild drive and automation control system of cartonboard machine at Macedonian Paper Mills in Greece

May 17, 2017

TORRI DI QUARTESOLO, Italy , May 17, 2017 (Press Release) -Macedonian Paper Mills S.A.( MEL) has awarded SAEL with the rebuilding of the complete drive and automation control system of their Board Machine, as well as the automation for the new Shoe Press which will be installed during a major stop of the paper mill in late June 2017.

After many years of operation with mostly outdated drives, and facing frequently problems in the control of the machine, due to the lack of a complete scada system, MEL decided to completely change not only the drive and automation system of the Board machine- but also their mentalitychoosing SAEL to be the supplier. With our philosophy, we want to give to the customer the ONE and only solution for all their challenges, saving time and money but also providing no less than the most updated and revolutionary technology existing in the market.

The scope of this project is to provide to MEL, two completely new cabinets, for DC and AC motors, with Platform ONE drives and a complete DCS Scalink, to manage the Board machine, in the best way and to reduce the costs of spare parts, faults and substitution timing. With Platform ONE drives, which are already installed also in the Jagenberg Vari Dur winder, MEL will have the possibility to keep actually only ONE electronic card as a spare part. The old electrical cabinets will be completely removed, creating a new long life, completely digital drive and automation system to last....

With the new DCS Scalink , with three 22 inch screens installed in 3 different engineering stations inside the paper mill, will be able to have in hand the complete machine, and to control their production in a perfect way. Above to that, new control desks will be distributed along the board machine, in order to give a completely new prospect and dynamic to the operators of the paper mill, having the possibility to control in an absolute way the complete process, from the formation of the paper to the Pope reel.

SAEL was also awarded from MEL, to provide the complete automation for the new Shoe Press, which will be installed in MEL, during the machine stop, in late June. The control of the shoe press will be handled from the DCS Scalink, choosing the corresponding page, giving the possibility to the operators to have in one system all the data needed to operate the machine more conveniently.

In the future it is also possible to include in the DCS Scalink, other existing PLC around the paper mills process, such as stock preparation, vacuum pumps, steam etc. In this way we give to the paper mill the possibility to gather all in one system and perform in the best way possible.

SAEL company profile

Since 1987 SAEL develops integrated systems and process controls solution for industrial automation with over 5.000 electronic equipments installed around the globe. A solid- made in Italy- company, is a leader on paper, steel, plastic and rubber, CNC and metallic wire machines. Two sites and over 45 employees in Italy, with hardware and software technical teams focused on the realization of projects and developments. 12% of the budget re-invested on R&D projects and new technologies research; AC and DC own drives with the main field busses communication protocols; supervision control systems with own technology and system integrator with the most popular Drivers; DNV UNI EN ISO 90001:2008 certified company.
WHO’S DOIN’ ANYTHING? (CONTINUED)

The paper production has three key words: quality, efficiency, 24/24 continuous production. A committed and specialized Team focused on innovative solutions development: from the revamping of the existing machines up to the brand new production lines. Custom and Flexible solutions for easier and quick installations: Systems and friendly user interfaces for any production stage. A long experience over the years allows the full integration between the most popular branded components - Inverter, Converter, Plc - and the own Drives made by SAEL. This is the strength to fulfil any specific customer need and application.

Lawrence Livermore Laboratory and LBNL researchers explore more energy-efficient solutions for paper industry

May 18, 2017

LIVERMORE, CA, May 16, 2017 (Press Release) - If you had to name the industries in the United States that use the most energy, paper manufacturing probably wouldn't immediately come to mind. In fact, the paper-making industry ranks third among the country's largest energy users, behind only petroleum-refining and chemical production, according to the U.S. Energy Information Administration.

Researchers at Lawrence Livermore (LLNL) and Lawrence Berkeley (LBNL) national laboratories are using the national labs' supercomputing capabilities to look at more energy efficient and cost-saving ways to make paper, targeting "wet-pressing," the stage where water is removed by mechanical pressure from the wood pulp into press felts that help soak up water before it is sent through a drying process. The researchers hope to develop a model for flow and deformation of the wet porous paper during the process, saving both energy and money. The project is one of the seedlings for the Department of Energy's HPC4Mfg initiative, a multi-lab effort headed by LLNL to use high-performance computing to address complex challenges in U.S. manufacturing.

"The major purpose is to leverage our advanced simulation capabilities, high performance computing (HPC) resources and industry paper press data to help develop integrated models to accurately simulate the water papering process," said Yue Hao, an LLNL scientist and a co-principal investigator on the project. "If we can increase the paper dryness after pressing and before the drying (stage), that would provide the opportunity for the paper industry to save energy."

The team recently released its final report on the first phase of the pilot project for the Agenda 2020 Technology Alliance, a consortium of paper manufacturers with a roadmap to reduce their energy usage by 20 percent by 2020. Hao said if manufacturers could increase the paper's dryness by 10 percent to 15 percent, it would save paper manufacturers up to 20 percent of the energy used in the drying -- up to 80 trillion BTU's (thermal energy units) per year and as much as $250 million for the industry annually.

Admittedly, Hao said, improving the dewatering process is no easy task, but by leveraging the DOE national laboratories' advanced simulation capabilities and HPC resources, along with sufficient experimental measurements and paper machine data, they feel confident they can develop the computational models needed to optimize paper press processes and achieve the goals set by Agenda 2020.

"The scientific challenge is that we need to develop a fundamental understanding of how water flows and migrates," Hao said. "All the physical phenomena involved make this problem a tough one because the dewatering process isn't fully understood due to a lack of sufficient data. This is a collective effort and we really need every piece of the contribution."

LLNL developed the simulation framework integrating mechanical deformation and two-phase flow models, while LBNL developed a full-scale microscale flow model for the complex pore structures in the press felts utilizing sophisticated modeling capabilities.

"This was true 'HPC for manufacturing,'" said David Trebotich, a computational scientist in the Computational Research Division at LBNL and co-principal investigator on the project. "We used 50,000-60,000 cores at NERSC (National Energy Resarch Scientific Computing Center) to do these simulations. It's one thing to take a research code and tune it for a specific application, but it's another thing to make it effective for industry purposes. Through this project, we have been able to help engineering-scale models be more accurate by informing better parameterizations from micro-scale data."
Researchers said in order to create a more accurate and reliable computational model and develop a better understanding of a complex phenomenon, they would need to acquire more complete data from the industry such as paper material properties, high-resolution micro-CT images of paper and experimental data derived from scientifically-controlled dewatering tests.

The study was conducted with funding from the Department of Energy's Advanced Manufacturing Office within the Energy Efficiency and Renewable Energy Office. Other researchers on the project include Wei Wang of Lawrence Livermore and Jun Xu and David Turpin of Agenda 2020.

**GE Oil and Gas to provide two new NovaLT12 gas turbines for cogeneration applications for Lucart’s two paper mills in Tuscany, Italy**

May 16, 2017

LONDON, May 16, 2017 (Press Release) -

- GE Oil & Gas signs agreement for provision of two of its new, top-of-the-line NovaLT12 turbines for cogeneration applications to Italian paper mill Lucart at two of its Italian locations.

- New turbines are designed for up to 37% efficiency at full load and allow for standardisation and modularisation to reduce engineering activities and delivery time as well as reduced emissions.

- This is the first NovaLT12 installation in the paper production industry and leverages the long collaboration between GE and Lucart.

- Product has been specifically developed to respond to power requirements in the 10.5-13.9 MW range and was launched in January at the GE Oil & Gas Annual Meeting in Florence, Italy.

GE Oil & Gas has signed an agreement for the provision of two of its new NovaLT12 gas turbines for cogeneration applications (CHP) to two paper mills in Tuscany, Italy, owned by Lucart Group, an Italian multinational, leader in the production of monolucid papers, tissue and airlaid products in Europe. This deal will create operational and environmental efficiencies for Lucart as well as further GE’s position as a leader in the power generation market.

The NovaLT12 turbines have been designed for higher efficiency and lower total cost of ownership than its market peers. Lucart is replacing its current GE turbine units with GE’s latest NovaLT12 technology.

“The installation of our NovaLT12 turbines at Lucart’s plants is another example of our leading power generation capabilities, and demonstrates our steadfast commitment to constantly improving our products”, said Michele Stangarone, President & CEO Europe, GE Oil & Gas. “This project builds on our longstanding relationship with Lucart and shows our ongoing dedication to creating efficiencies for our customers.”

"We have been the first company in the sector to focus on the self-production of electricity and steam with cogeneration turbines to reduce CO2 emissions at our plants and today we continue the process of efficiency of our production plants" - said Massimo Pasquini, Chief Executive Officer of Lucart - "GE Oil & Gas is our historic technology partner since 1988 and thanks to this new investment involving two of our plants in Tuscany we will be able to carry on our business plan. This new technology will not only increase our working efficiency, but will reduce NOx and CO2 emissions to help us reduce our carbon footprint. We look forward to working further with GE Oil & Gas in the future and building on our partnership."

The scope of supply also includes two fuel gas compressors, a Contractual Service Agreement (CSA) covering 140,000 firing hours for each train. Both units will be in operation by summer 2020. The NovaLT12 joins GE Oil & Gas’s growing family of industrial gas turbines, which includes the NovaLT16 and NovaLT5 units. The standard model of the
WHO’S DOIN’ ANYTHING? (CONTINUED)

NovaLT12 turbine can deliver 12.6 MW, while design options will be included for requirements from 10.5 MW to 13.9 MW. As with the whole NovaLT family, the product features a modular built to significantly reduce customised engineering needs, which in turn enhances delivery time and saves total cost to customers.

The NovaLT12 is 12% smaller than the NovaLT16 and can operate at up to 37% efficiency when working at full load. The turbine features HPT end-wall contouring to further increase efficiency and minimises oil leakage and associated maintenance with integral exhaust casing and LPT bearing housing. The turbine was designed for easy maintenance through simplified engine architecture and features increased operating flexibility with inner and outer baffle redesign for more tuneable dynamic behaviour.

The NovaLT suite of products is designed to accommodate an increasing trend for distributed power generation closer to the point of consumption. With efficiency up to 85% in cogeneration applications, GE’s NovaLT family of gas turbines represent the most advanced solution to produce heat and power.

As part of this effort to continuously improve operations capabilities, GE Oil & Gas is now running a NovaLT16 continuous operation on the electrical grid in a dedicated power generation facility at its Florence facility. Certified by a third party, the targeted completion is 8,000 hours. The NovaLT12 was launched officially at the 2017 GE Oil & Gas Annual Meeting, which took place on January 30-31 in Florence, Italy after a premiere at the Power-Gen International conference in Orlando, Florida last December.

About GE

GE is the world’s Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

GE Oil & Gas

GE Oil & Gas is inventing the next industrial era in the oil and gas sector. In our labs and factories, and in the field, we constantly push the boundaries of technology to solve today’s toughest operational & commercial challenges. We have the skills, knowledge and technical expertise to bring together the physical and digital worlds to fuel the future.

Lucart

Lucart, a multinational Italian industrial group founded in 1953 by the initiative of Pasquini’s family, is leader in Europe of mono-glazed paper, tissue products (paper articles intended for daily consumption, such as toilet paper, kitchen paper, napkins, tablecloths, handkerchiefs, etc.) and airlaid products. The company's production activities are distributed over 3 Business Units (Business to Business, Away from Home and Consumer) operating in the development and sales of various products with distinctive brands such as Tenderly, Tutto, Grazie Natural and Smile (Consumer area), Lucart Professional, Tenderly Professional, Fato and Velo (Away from Home area). Lucart's production capacity is more than 300,000 tons of paper/year, split over 10 continuous machines and 58 converting lines. The consolidated turnover is equal to about € 400 million, with a total workforce of 1,300 employees, 7 production plants (5 in Italy, 1 in France and 1 in Hungary).
## 2017 Pulp & Paper Industry Division Calendar

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### Conferences
- ISA SLM D10 DLC
- ISA PC&S Westchase
- ISA FLM Westchase

### Holidays
- New Year's Day
- Independence Day
- Memorial Day
- Labor Day
- Columbus Day
- Veterans Day
- Thanksgiving
- Christmas

### Other Dates
- Tax Day
- Presidents Day
- Martin Luther King Jr. Day
- Mother's Day
- Easter
- Valentine's Day
- Mom's Day
- Independence Symposium
- Thanksgiving
- Christmas

**Pulp & Paper Industry Division**

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**Spring 2017**

**Portland, Raleigh, NC**

**Tampa, FL**

**Westchase**

**Houston Marriott**
"Lime Kiln and Recaust - Tighten up the energy efficiency and availability of the lime kiln while improving reburned lime"

Timo Laurila, Metso

Originally presented at the Metso Automation USA Conference Series at the Red Lion Inn in Kelso, WA on November 16 & 17, 2010
2017 PUPID SCHOLARSHIP WINNER

For the third year in a row, we are pleased to award the 2017 $2000 PUPID Scholarship, to Garrett Fisher, a senior dual major in Chemical Engineering and Paper Engineering (with a Process Control option) from Western Michigan University in Kalamazoo.

After my admonition a year ago to “tighten up” when his grades slipped (LOL) all the way down to 3.85, Garrett told me that he got another 4.0 this spring (2017).

After having to leave his home state following his freshman year for his first co-op as a Power Plant Process Control Intern in the RockTenn mill in West Point, VA, Garrett has been able to stay closer to home for three successive years. Two summers ago in the packaging division at Perrigo, a store brand pharmaceutical company, in Allegan, MI – a 2-hour drive to home – and last summer as a Process Engineering Intern at Domtar in Port Huron, MI; Garrett decided to return Domtar’s Port Huron mill because “it’s close to home (Omsted, Michigan)” and he can do a lot of interesting things in the mill since it’s a relatively small mill and they let him do mill chemical trials as well as new equipment installs. Garrett also told me that he is able to work with PI and ParcView and work with the mill’s control guy from Emerson. Being a very biased Control Systems Engineer, I told him that we Automation & Controls Engineers “control the world”; so do as much as you can to let them be able to program the DCS, PLC, and HMIs in the mill.

Garrett’s not just a “brain” but has a great sense of humor (and is a bit of a rebel, too); when I asked him to send me a new picture he sent the picture above and titled it “professional picture”. Just in case you don’t recognize the big-headed guy sitting next to Garrett (Garrett’s the guy in the pink shirt); that’s none other than Brutus Buckeye. Garrett says that although he’s lived in Michigan all of his life; he’s always been a Buckeye fan (because both parents are OSU alumnai).

So, congratulations, Garrett; and keep making sure that I-94 is safe for passage.
CALL FOR PAPERS

The ISA 2017 Process Control & Safety Symposium and Exhibition will be held 7-9 November in Houston, TX USA

This annual event is recognized as the outstanding forum for discussions of new and innovative process control and safety techniques, developments, and applications. A worldwide array of speakers and attendees alike have the distinct opportunity to participate in informal discussions and social gatherings to acquire the latest information about process control and safety.

Papers are currently being accepted which address topics in instrumentation, communications, and control systems in process control and safety industries. Proceedings from this event are marketed and sold globally, where an International Standard Book Number (ISBN) will be assigned for distribution.

Submission Guidelines
Abstracts should be 200 words or less and describe what the noncommercial presentation will cover. All papers must be submitted in electronic format (MS Word) suitable for publication in the proceedings, and slide presentation materials must be provided in electronic format (MS PowerPoint) prior to the symposium for review and approval. A publication release form will also be required for all approved papers. If your abstract is accepted and you agree to submit a presentation for the conference proceedings or handout, you are also agreeing to register and present at ISA’s 2017 Process Control and Safety Symposium.

Submit your abstract at https://www.xcdsystem.com/pcs

You will be notified via email that your abstract has been reviewed, accepted, or rejected by our technical committee. Abstract due date is 1 May 2017. Once Accepted, a discount registration fee is required in order to participate and present.

IMPORTANT DEADLINES:
Abstracts Due ............................. 1 May
Acceptance Confirmed ...................... 1 June
Draft Presentations/Papers Due ... 1 August
Reviewer Comments Due............. 1 September
Speaker Registration ...................... 1 October
Final Presentations/Papers Due .... 1 October
Conference Presentations .... 7-9 November

For details on ISA’s 2017 Process Control & Safety Symposium and Exhibition visit www.isa.org/pcs2017

Setting the Standard for Automation™
**Links to Related Websites**

- **ISA Pulp & Paper Website**
  
  http://www.isa.org/~pupid/

- **ISA Pulp & Paper Technical Discussion Forum**
  
  http://www.isa.org/scripts/lyris.pl?enter=pupid&text_mode=&lang=english

- **ISA Technical Conference Session Schedule**
  
  http://www.isa.org/Template.cfm?Section=Conferences_and_Exhibitions&template=/taggedpage/conferencesbydate.cfm&icid=61

- **Pulp & Paper Research Institute of Canada**
  
  http://www.paprican.ca/

- **TAPPI**
  
  http://www.tappi.org/

- **PIMA**
  
  http://www.pimaweb.com/

- **American Forest and Paper Association**
  
  http://www.afandpa.org/

- **National Society of Professional Engineers**
  
  http://www.nspe.org/

- **Swedish Royal Institute of Technology**
  
  http://www.pmt.kth.se
  http://www.hut.fi/English/

- **Helsinki University of Technology**
  
  http://www.hut.fi/English/

- **Technical Association of the Australian and New Zealand Pulp &amp Paper Industry (APPITA)**
  

- **Australian Pulp & Paper Institute**
  

- **ISO Standards Technical Committee List**
  

- **ISA Standards Committees LISTSERVER**
  
  http://www.isa.org/shellcgi/lyris.pl?site=isa&page=topic&topic=standards+committees&text_mode=0&lang=english

**Quickies**

**ISA Pulp & Paper Technical Discussion Forum**

Anybody (not necessarily an ISA or PUPID member) can subscribe to the PUPID Pulp & Paper Technical Discussion Forum. To subscribe, go to the PUPID homepage at [http://www.isa.org/pupid/](http://www.isa.org/pupid/), select “Link to the PUPID email LISTSERV” in the pick box, click “Join”, and enter your email address and a password.

**ISA Member Benefits**

ISA members receive benefits such as the Latest Technical Information, Professional Development Resources, Networking Opportunities, Special Bonus for Student Members, Insurance Program for Independent Contractors and Business Owners, and other personal privileges. Go to [http://www.isa.org/membership/membership-benefits/](http://www.isa.org/membership/membership-benefits/) to see specific benefits.

**ISA PUPID Calendar**

Get a quick overview of ISA PUPID events by going to the Calendar at:

[https://www.isa.org/division/pupid/events/](https://www.isa.org/division/pupid/events/)
WORLD CORNERS

CANADA CORNER
Nothing from anyone there this time!

FAR EAST CORNER
Nothing from anyone there this time!

EUROPEAN CORNER
Nothing from anyone there this time!

FROM THE LAND OF THE MIDNIGHT SUN
Nothing from anyone there this time!

CENTRAL & SOUTH AMERICAN CORNER

LETTERS TO THE EDITOR

Send your comments on this newsletter to me at brad.carlberg@bsc-engineering.com or post a message to the ISA PUPID Technical Discussion Forum List Serve & “get something started”!

- You can reach the ISA PUPID Technical Discussion Forum List Serve by clicking this link PUPID email LISTSERV or by going to the PUPID microsite and clicking on Email List
ISACONFERENCES / SYMPOSIA

ISA CONFERENCES / SYMPOSIA

JUN 20
2017 ISA LDAR Fugitive Emissions Symposium
Tuesday, 20 Jun 2017

JUN 27
2017 ISA POWID Symposium
Tuesday, 27 Jun 2017

AUG 08
2017 ISA Water and Wastewater and Automatic Controls Symposium
Tuesday, 08 Aug 2017

NOV 06
2017 Process Control and Safety Symposium and Exhibition
Monday, 06 Nov - Thursday, 09 Nov, 2017
2900 Briarpark Dr Houston, TX 77042-3704

NOV 06
63rd International Instrumentation Symposium (IIS) 2017
Monday, 06 Nov 2017

FROM THE WORLD

MAY 26
CITYNEXT 2017
Friday, 26 May 2017

JUN 07
IoT in Oil and Gas
Wednesday, 07 Jun 2017

JUL 05
Automation Instrumentation Summit 2017
Wednesday, 05 Jul 2017

AUG 02
Best Calibration Practices: Interactive Workshop
Wednesday, 02 Aug 2017

OCT 04
CS4CA Europe 2017
Wednesday, 04 Oct 2017

ANSWERS TO THE TUNING TIP

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vacant

**Environmental Chairman**

vacant

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Vacant

**Advisor**

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Vacant

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