cmpc Pulp news

November 2015

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Welcome

Dear Friends:

Over the third quarter of this year, we have seen a firm short fibre market and a steady long fibre market; demand has been fairly healthy in both.

At CMPC Pulp we have continued making progress with our objective to support the growth of our clients with the processes, information and services that we know are critical factors in their success.

The new Guaíba Mill production line has already reached 75% of the start-up curve, and all the indications are that we will be able to get to 100%, as planned, in December this year.

The technological standards of this expansion have allowed our industrial complex to reach waste recycling levels that are among the highest in the world. This gives us great pride and makes us more committed than ever to keep moving forward on this path.

In this newsletter we also highlight the work that we have been developing in the innovation area. Through a programme, which we have called i-Cel, we are promoting collaborative innovation projects that are aligned with our strategic objectives, with a high level of participation from our collaborators.

We are also happy to present some details of our technical support initiative for clients, which aims to generate value through a better use of our fibres in paper manufacturing. We have put together a technical team of professionals, and provided them with the equipment and technology necessary for analysis and research, focused on finding innovative solutions that allow a more efficient use of the different types of fibres that CMPC Pulp provides from Chile and Brasil.

I invite you to read our newsletter enthusiastically, and I would also like to take this opportunity to wish you very happy end-of-year holidays together with your family and loved ones.

With very best wishes,

Washington Williamson
General Manager of CMPC Pulp

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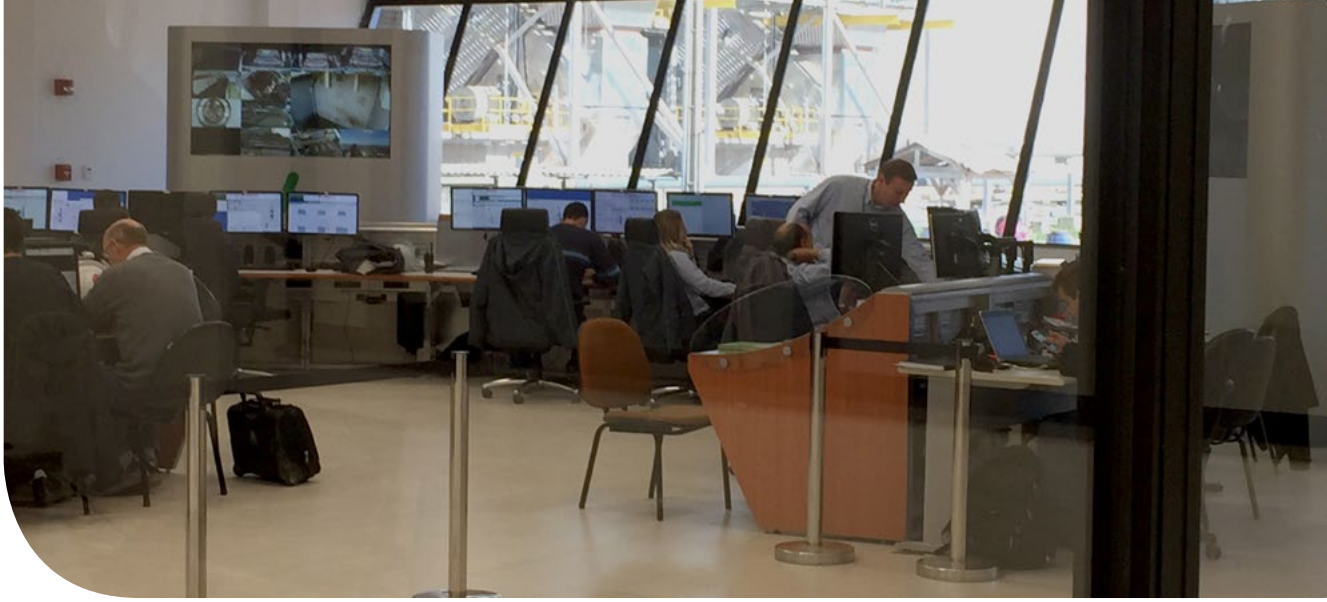

Guaíba Mill

Total integration

The start-up of advanced control systems has allowed us to be confident that Guaíba Line 2 will reach full capacity in December, as planned.

By October 2015, the new Guaíba Mill production line was already operating at 75% capacity. Small adjustments, the connection of lines 1 and 2, and most importantly, the implementation of an Integrated Operations Centre, have allowed CMPC Celulose Riograndense to increase its production levels systematically during the learning curve period, which was estimated as a six months from the start-up on 3 May.

The integrated system allows the whole production process to be controlled on a continual basis, from the monitoring of the highways used by the nearly one thousand trucks which arrive daily at the mill loaded with eucalyptus logs, to the packing of the pulp bales that will be shipped off to overseas markets.

José Wilhelms Ventura
Director of the Guaíba Industrial Complex

"From the Integrated Operations Centre we can control all areas of the mill 24 hours a day, 7 days a week."

More than just pulp

As well as quadrupling the scale of production, the Guaíba Mill has introduced technologies that have made it one of the companies with the highest waste recycling index in the world.

In association with the company Vida Ecológica, CMPC Celulose Riograndense is transforming its solid and liquid waste from its pulp production process to high value products for the agricultural activities of other companies in the State of Rio Grande do Sul.

When it increased its pulp production capacity, the company expanded the area used for waste treatment from 17 to 67 hectares. For its part, Vida Ecológica, increased the number of people working at its recycling centre from 70 to 160.

HUMUS FOR VEGETABLE GROWING AND GARDENS

Unlike what happens at most pulp mills, at Guaíba the tree bark does not go to landfills, but to a recycling centre located 30 kms from the Mill. There, the company Vida Ecológica turns this solid waste into humus, an agricultural substrate used in hydroponic gardening and residential and commercial vegetable growing.

NUTRIENTS FOR THE CULTIVATION OF SOYA AND CORN

Lime mud, known commercially as macrocalcium is a waste product from the pulp production process and, at the same time, an excellent nutrient for agricultural land. There is demand from cereal producers all over the State for this agricultural product which is easy to apply with agricultural machinery.

AGRICULTURAL SOIL ACIDITY CORRECTOR

The compound formed by calcium carbonate and ash from the combustion of wood, known as dregs can increase productivity from soya, corn and bean plantations, thanks the micronutrients it contains. At the recycling centre, this compound is homogenized, dried and prepared so that it be sold.

ORGANIC FERTILIZERS

At the final pulp production stage, large tanks accumulate the mud that forms from the waste water treatment system that returns clean water to Guaíba Lake. This mud is taken to the recycling centre where it undergoes a composting process that turns it into an organic fertilizer. The mud is subjected to an anaerobic fermentation process in ditches six metres deep, each with a capacity of 11,000 cubic metres. With gravity, it then seeps through to drying beds and finally it goes to green houses where the humidity is reduced and it is transformed into humus.

99.7%

of the waste material from Guaíba is recycled

Everyone is innovating

With our i-Cel Programme, we are promoting collaborative innovation projects aligned with the company's strategic objectives.

In order to put innovation at the centre of our company's business and culture, since 2012 we have been developing the i-Cel Programme. Built in a collaborative environment, on a web platform, this system captures ideas related to a specified objective. The system classifies, prioritizes and evaluates these, then selects and implements them. With this methodology, the programme has received 1,910 proposals generated from the participation of 1,168 collaborators in Chile and has implemented 83 projects related to the challenges proposed, which have included how to make the company the best place to work and how to increase energy efficiency. In addition to providing direct benefits for our workers, we have achieved innovations with potential annual savings of US$5.7 million.

"Our principal objective for 2015 and 2016 is to increase efficiency at the CMPC Pulp mills"

Arturo Labbé
Innovation Manager at CMPC Pulp

TO INCREASE ENERGY EFFICIENCY

The energy efficiency challenge was called EE 20/20 in reference to the goal of reducing energy consumption by 20% by the year 2020. Within this framework, 9 projects were approved. The company will invest US$717 thousand in these projects and estimates that annual savings of around US$1.5 million will be generated.

Notable among these projects are systems that allow condensation and steam to be saved, which means that more energy can be generated in the turbo generators.

TO OPTIMIZE PROCESSES

There are various projects at the study stage in the i-Cel Programme which are focused on efficiency of the mills. These include the incorporation of laser readers for reducing wood rejects and a washing system for the combustion chamber of the recovery boiler at the Santa Fe Mill, which would increase mill production capacity by reducing maintenance time.

78%

of our collaborators in Chile have participated in i-Cel

US$ 4.1 million

is what we have spent on projects approved within this programme

739

people have contributed at least one idea on our innovation platform

Consolidation of the team

Together with our clients, we are searching for solutions that add value to their business.

Fernando Martínez
Customer Service Director, CMPC Pulp

Edvins Ratnieks
Technology Manager, CMPC Celulose Riograndense

During 2015, we have consolidated a technical team of professionals who, in conjunction with our customers, are working on the development of solutions to allow a more efficient use of the different types of fibers that CMPC Pulp provides from Chile and Brasil.

This team was launched in 2013 and is formed by Fernando Martínez, Customer Service Director of CMPC Pulp; Edvins Ratnieks, Technology Manager of CMPC Celulose Riograndense; Jan Peter Groth, Pulp Technical Sales, from Gusco Handel (Germany); Su Wang, PulpTechnical Sales, from Cellmark (China); Raul Gonzáles, R&D Manager and Xavier Pizarro, Customer Service Assistant, CMPC Pulp.

All of them use specially designed technological tools. These include a software program called SoftaCell TM, which simulates the optimum fiber mix for different applications used in the paper industry. The team's experience, with the help of this software, not only allows detection of the most appropriate mix of pulps (furnish) and the optimal refining, but also provides the most economically advantageous solution for our clients.

CMPC Pulp also has a pilot refiner at its R & D center, which closely simulates the real conditions of the pulp refining industry, with the versatility to adapt to the different and varied conditions of our customers, using different sizes of cones and discs.

Jan Peter Groth
Pulp Technical Sales, Gusco Handel (Germany)

Su Wang
Pulp Technical Sales, Cellmark (China)

Raúl González
R & D Manager, CMPC Pulp

Xavier Pizarro
Customer Service Assistant, CMPC Pulp

R & D project for reutilisation of waste products

In conjunction with the Universidad de Concepción in Chile, CMPC Celulosa is looking for new uses for Dregs and Grits, which are waste products of the pulp production process. One of the options being investigated is their transformation into agents for the lime treatment of soils.

This project obtained the certification necessary for obtaining a R & D tax incentive benefit, and represents an important step towards the objective of achieving systematic connection between the company and investigative centres and universities, in order to ensure sustainability of operations.

CMPC News

Change of executive

In July, Juan José Irarrázaval Gomien, moved into the position of Marketing and Commercial Analysis Manager at CMPC Pulp. Until then he was Head of Special Projects in the company's Research Department, where he worked for four years. He is a Business Administration graduate from the Universidad Católica de Chile. Prior to joining CMPC he worked for three years as an Investor Relations Analyst at LAN Airlines in Chile. His overseas experience includes one year living in Canada and another in Australia. One of his hobbies is Japanese painting.

Families promote security at work

In response to a challenge posed by the i-Cel innovation programme, more than 150 children, all sons and daughters, grandchildren or direct nephews and nieces of CMPC Pulp collaborators in Chile, sent in their drawings for the "Self Care. For you and your family" competition. The pictures selected were printed on large-sized posters and placed in visible areas at each one of the mills, making them high-impact instruments for promoting security in the workplace.

Distinctions for being among the best forestry workers in Chile

Javier Torres, Head of the Fibre Mechanical Area at the Santa Fe Mill, and Pedro Gutiérrez, Production Engineer at the Recovery and Energy Superintendence (SIRE) at the Pacífico Mill, received awards from the Chilean Wood Corporation (CORMA), for being among the fifty best forestry workers in Chile during 2015. Their willingness to collaborate in promoting security and innovation in management of the processes was a key factor in awarding them this distinction.

"Work becomes easier if we strive for the common good, if we leave selfishness aside and if we live our lives with happiness"

Javier Torres, Head of the Fibre Mechanical Area at the Santa Fe Mill

"A positive attitude and teamwork are very important for achieving our goals. We should always be trying to improve our processes for the benefit of security, care of the environment and productivity."

Pedro Gutiérrez,Production Engineer at the Recovery and Energy Superintendence (SIRE) at the Pacífico Mill

CMPC PULP in synthesis

We strive to satisfy the requirements of our clients with differentiating value propositions that are decisive for their success.

4
million tons annually

total production capacity for Eucalyptus and Radiata Pine pulp

2,105
collaborators

in Chile and Brazil

35
countries

as export destinations

Guaíba
Brazil

1,690,000
tons/year BEKP

+ 60,000 tons/year P&W paper

Santa Fe
Chile

1,500,000
tons/year BEKP

Pacífico
Chile

500,000
tons/year BSKP

Laja
Chile

230,000
tons/year BSKP

+ 30,000 tons/year UKP
+ 70,000 tons/year Sack Kraft paper

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