By burning hydrogen, Pacífico Mill will substitute oil.

Opinion: Staffan Eskilsson, Consultant
New environmental standards for the industry.

View of Fredrik Anderson, Cellmark AB

China in the world pulp market
Dear Friends,

Once again we have a very interesting newsletter, including articles and news about our company and the industry in general.

As for many other participants in the “market pulp” business, 2008 begun in great shape, with pulp prices still rising and healthy order books for our customers. The main setback was costs inflation, as many materials and services increased in price as well. By the middle of the year, we were seeing worldwide inflationary pressures.

The situation changed dramatically during the second half of the year as the destructive global power of the financial crisis become clear. As the world economy entered the deepest crisis since the Great Depression, pulp demand contracted rapidly and market prices started to fall. Even though cost pressures were also reduced, pulp prices fell faster and further, so that the EBITDA figures for the final quarter of 2008 were 50% down on the record figures in the second quarter of the year.

Without a doubt we are now all passing through turbulent times. Many of our customers are suffering low orders as world demand contracts, and although pulp and other raw materials have decreased in price, so has the price of paper. As a result we are seeing major production curtailments of both pulp and paper that hopefully will take care of excess stock and will help the future recovery of this market.

At CMPC we remain confident that we can overcome the present difficulties and remain open to new opportunities that can help us to strengthen our position as a world class supplier of top quality hardwood and softwood pulp.

Best regards,

Guillermo Mullins
Commercial Director of CMPC Pulp
By burning hydrogen

Pacífico Mill will substitute oil

Eckart Eitner, Operations Manager at CMPC Pulp.

In association with ERCO, CMPC Pulp will carry out the first trial at an industrial level in Chile of burning hydrogen to replace oil.

From the first half of 2010, Pacífico Mill may be able to substitute 50% of oil currently used in its lime furnace with hydrogen obtained as a by-product from the ERCO Worldwide’s neighbouring sodium chlorate plant.

The engineering studies for this project were finalised towards the end of 2008, and the estimated US$6.4 million investment will be divided equally by CMPC Group and ERCO.

This project is part of the commitment by both companies to jointly take on technological developments, after CMPC selected ERCO as its exclusive supplier of sodium chlorate in 2003 for 30 years, given its superior environmental performance. (ERCO was one of the Canadian companies that created the concept of Responsible Care and has been developing clean production systems for 30 years).

The fuel substitution that will make this project possible will generate environmental, logistical and economic benefits, stresses Eckart Eitner, Operations Manager of CMPC Pulp. It will reduce greenhouse emissions (CO2), particles and sulphur dioxide associated with oil consumption; it will decrease truck traffic and will enable the sale of carbon credits under the Clean Development Mechanisms Framework (MDL), of the Kyoto Agreement.

This new project is in addition to others developed by CMPC Pulp to replace fossil fuels with other non-polluting fuels. At the company’s three mills energy is currently generated from organic material that is separated from the fibre in the pulp extraction process, and from the bark of logs.

When both fuels are burnt in special boilers, they generate steam and electricity for use at the mills and sale of excess. The energy produced at CMPC Pulp’s mills enables it to meet two thirds of its energy requirements.

1 ERCO’s sodium chlorate plant is located in Mininco area, adjacent to Pacífico Mill.
2 CMPC Pulp’s Pacífico Mill.
Mr Staffan Eskilsson (65) is a Swedish engineer for Cellulose Technology, with over 40 years experience in the pulp and paper industry, with his main focus on kraft pulp mills. During his early professional years in the 70’s and mid 80’s he worked for two leading companies in Sweden helping to develop groundbreaking pulp and paper technologies. In 1984 he joined ÅF-IPK, currently ÅF Group, a world leader in technical consulting. After many executive positions he started up his own consulting company, associated with ÅF-IPK in 1993. Through his professional career he has been involved in almost every major kraft pulp mill project in the world and has worked as a consultant for CMPC in many projects and studies since 1985.

How would you rank the Chilean and CMPC pulp mills from the environmental point of view? How do you rank the Chilean environmental legislation?

The pulp industry historically had a poor environmental reputation, and with good reason: Pulp mills 30-40 years ago produced large amounts of effluent that polluted many of the recipients. Emissions were also high, and the odour from kraft pulp mills has been a big nuisance until the recent odour-free mills. With this historical reputation, the industry can easily be a target for opportunistic environmental politics, which the Botnia case demonstrates. In fact, I think the pulp industry today should be proud of its fast and sustained environmental improvement track, compared with other industrial sectors.

Objectively, the new Chilean mills have very high environmental standards, with low specific emissions at the same levels as the best mills in the world. That is of course also the case for CMPC’s latest mill, Santa Fe 2. Also existing mills worldwide have been upgraded to good environmental standards, including the older mills in Chile.

One of the drivers is environmental legislation. Much of the Chilean legislation is
The new Chilean mills have very high environmental standards. Quite recent and may not yet be quite developed enough to focus on specific issues, but that does not mean that it is less demanding. Nevertheless, there are also other strong drivers like market requirements, stringent conditions from possible financiers, overviews from environmental groups and public demands. The bottom line is that all new projects must apply the best proven available environmental technology independent of national legislation.

Putting to one side the wood procurement issue that normally limits the size of the pulp line, do you foresee an upper technical limit on the size of the pulp mill of the future? What are the technical issues that lead to this outstanding growth in the optimal economic size of pulp mills and what will limit future growth? There is a substantial economic incentive to make processing equipment bigger, since the cost of investment and manning increase proportionally less than the capacity. Over the years technology has developed for bigger units, but has been balanced to minimize technical risks with unproven technology. Furthermore, the pulp industry generally has a good climate for technological development, and is fairly open in terms of sharing technical information between pulp companies and processing equipment companies. Therefore, development towards bigger units will continue. Of course there are many technical questions to solve in that process, but I don’t see any fundamental restriction on the continued possible increase in size.

What are the main competitive advantages of CMPC and other Chilean pulp industry operators, and what are the reasons for the success and growth of this industry in the last 15-20 years? Will this change in the future? Wood supply and low wood costs are usually claimed as the main competitive advantages, and it is true that they are key factors. But this favourable wood supply has of course not appeared by itself, particularly in the Chilean case. It is the result of more than 50 years of systematic work and investment in land purchase, forest planting, genetic improvement, harvesting technology development, etc.

Notwithstanding, the wood cost is not the whole answer: The industrial-political climate in Chile is stable; the majority of the Chilean workforce at all levels are skilled and motivated. The leading pulp companies are effective and financially strong, and the pulp mills are mostly modern and technologically efficient. For example, in my country we consider ourselves to be energy efficient, but in fact the average Chilean pulp mill is more energy efficient than the average pulp mill in Sweden.

Costs have increased in Chile in recent years, for wood, materials, labour and other things. But that is also the case in other pulp producing countries, so the competitive advantage of Chile remains the same.

According to your experience, what is your opinion of the efforts of CMPC’s mills to remain efficient and competitive over time? The oldest pulp mill in Chile is Laja, which now is 45-50 years old. It has been partly modernized in several stages. But it is now due a major upgrade to meet more demanding modern standards for emissions and efficiency. CMPC is in the planning phase for the upgrade and has already applied for the necessary environmental licenses.

Regarding CMPC’s other two mills that are 16-17 years old (Pacífico and Santa Fe 1), these have been well maintained and partly modernized, their performance and standards are close to brand new mills, so they will remain efficient for many years to come, and the new Santa Fe 2 mill is of course top class.

So compared with most other pulp companies, CMPC’s mills will perform to a very high standard once the upgrade at Laja has been completed.
In recent years we have seen how China has been the main protagonist in global economic growth, leading the import of raw materials, which includes pulp, and the export of every type of manufactured product.

This growth, however, has not been without critics of its banking management system and the ease with which credit has been given to an industry which apparently over invested, creating the excess demand which is evident today.

What everyone throughout the world is asking though, is if China can avoid or help to mitigate the global crisis, and specifically in our case, what will be the future of the paper industry, and if we will definitely be able to continue relying on China as the main market for our pulp.

All of these questions are very difficult to answer when in the middle of these turbulent times. However, Fredrik Anderson, Managing Director of Pulp for Cellmark AB, who opened the Chinese market to sales from our Santa Fe pulp mill, gives us his view on these issues.

How do you explain the current situation in China compared to 8-10 months ago?
“China is a major market with enough purchasing power to affect the global market”.

As the whole world goes through turmoil right now—no one can escape—perhaps for China, being heavily reliant on exporting consumer goods, this is a more serious blow. However, the Chinese economy has grown significantly, so let us hope that China can deal with the situation minimizing the consequences of the global downturn.

What, in your opinion, will happen with all the new investment in paper machines in China? We understand that many of them are in trouble right now.

If one were to take a snapshot today, perhaps all new investments are being put on hold, not only in China. Under the current circumstances it is very difficult to say how investment decisions will look and be affected in two years but yes, there are a number of projects that are being put on hold.

What differences do you see when doing business in China as oppose to other places in the world?

My personal view is that doing business in China could be depicted as a chess game: you need to play it right not be put in checkmate. The Chinese negotiation style is one of the most successful when it comes to gaining advantage and it takes patience, nerve, courage and again patience to close deals. However, in the long run if you are competitive and have the right commitment, my personal experience is that doing business Chinese is both challenging and exciting.

What lesson did you learn from the latest changes in China?

China, in my eyes, seems to be reacting very fast to market sentiments, which goes for most commodities (coal, iron ore, copper, grain, etc.) as well as financial instruments. If we look at how they reacted to pulp, simply awaiting a downturn in prices by not buying, they gambled that pulp was over priced in middle 2008, but based this very much on paper prices and demand for paper, and in hindsight it seems they placed the right bet even if this created a lot of frustration. The disadvantage for producers is that China is a major market with enough purchasing power to affect the global market.

The lesson to be learnt is that when a large and important market suddenly stops buying there are few things one can do— the relationship is put under strain and this creates a lot of frustration. However staying calm, maintaining long-standing relationships, keeping doors open is a role we need to play as ending a relationship angrily serves very little purpose!

Tell us about your recent experience of opening up the Chinese market. Do you feel proud?

For me personally as well as for Cellmark, the journey together with CMPC to open up China for Santa Fe bekp along with a substantially increased market for radiata pine (mainly Pacífico) – has created a market platform for CMPC making CMPC among the market leaders in pulp in China which has been fantastic—from 150,000 tonnes in 2005 to 350,000 tonnes in 2008—is something that we are proud of as a team. How can one not be!

Finally, tell us a bit about Cellmark and your relationship with CMPC.

The relationship between CMPC is something we value and also respect. Despite the turbulence in the pulp market we have worked well as a team, with mutual respect and listening skills. It is not easy to stay calm when passing through turbulent times (and indeed it has been very turbulent). Cellmark, is a strong and closely knit corporation where we are fortunate, in particular during difficult times like now, to work with a company that takes a long-term view and yet remains flexible.

Fredrik Anderson
CMPC GROUP

- Sales of the CMPC Group grew 14.8% in 2008, compared with the previous year, totaling US$3,553 million. 52% of consolidated income came from exports, 29% sales within Chile and 19% of sales were made by subsidiaries abroad.

Consolidated Sales
(millions of dollars)

- The pulp business contributed 30% of the total income of CMPC Group in 2008.

EBITDA by Business Area
(2006-2008 in millions of dollars)

- The forestry assets of CMPC Group totalled 786,600 hectares at the end of 2008.

Forestry Assets 2008
(thousands of hectares)

- New jobs, particularly in the tissue business area, brought the number of workers at CMPC Group to 12,567 in December 2008.

Staff Resources
(number of workers in December 2008)

CMPC Group obtained final profits equivalent to US$244 million in 2008. The consolidated EBITDA dropped 9.5% compared with 2007, due to an increase of 25% in costs; mainly due to rises in energy and transport costs, higher costs for chemicals, labour and support services.

Consolidated Results
(millions of dollars)
CMPC PULP

- Pulp prices have dropped sharply with a decrease of over 35% for long fibre and 38% for short fibre since the highest prices reached in the middle of 2008. Average pulp prices compared with 2007 were 8% higher for short fibre and 3% lower for long fibre.

Average Quarterly Export Price of Pulp (US$/tonne nominal FNVF)

- CMPC Pulp’s export volumes decreased by 2% in 2008, mainly for long fibre, which dropped 5% compared with last year. The average weighted sales price was 1.7% higher due to good market conditions in the first half of the year. Thus, income measured in nominal dollars fell 2% in the year.

Market Pulp Sales 1991-2008 (1000 of metric tonnes)

- 50% of CMPC Pulp’s exports in 2008 went to Asia, which has been the company’s main market since 2007.

Market Pulp Exports by Region 2008
1.55 million tonnes

Operating Results (thousand US$)

- CMPC Pulp’s EBITDA fell 13% in 2008, measured in nominal dollars due to the decrease in the demand for pulp from August, and an increase in costs because of a rise in the prices of wood for pulp, higher energy costs and higher prices for chemicals.

CMPC Pulp: 2008 Results by Quarter

- EBITDA
- Average sales prices
- Cost of sales
- Gross margin
- Total assets
- Shareholders’ equity
- Administrative & Selling Expenses
- EBITDA/Sales
- Others
- Americas
- Europe
- Asia
- Others
CMPC Pulp SA obtained the FSC standard for the certification of its supply chain from 1 December 2008 for a period of five years.

This certification covers the management of buying FSC pure and controlled wood for the eucalyptus species, the process of obtaining BEKP for Santa Fe and the management of its sale in international markets.

The percentage method of certification used is Volume Credit, thus in the next few months part of our Santa Fe BEKP pulp will be in the market with 100% FSC certification.

An exhibition of Mapuche art in New York promoted the CMPC Foundation with the purpose of supporting the celebration of the Chilean Republic’s bicentenary. A hundred items of silver jewellery, masks and textiles from the Mapuche race, who originate from Chile, has been on display from January at the Americas Society, an organisation founded by David Rockefeller to promote Latin American, Canadian and Caribbean culture in the United States.

The pieces, belonging to Jacqueline Domeyko Cassel’s collection, will be exhibited up until 18 April 2009 under the curation of the anthropologist Thomas D. Dillehay.

The display, entitled Moontears: Mapuche Art and Cosmology was viewed by approximately 50,000 people at the Museo de Bellas Artes (Museum of Fine Art), in Santiago, Chile, during March 2005. The CMPC Foundation also supported the publication of a large book based on this successful exhibition.
San Pedro de Atacama

The North of Chile is full of exotic landscapes, colours and the history of ancient civilisations. One of the most attractive places in this area is San Pedro de Atacama, a small town located in an oasis on the high plateau, in the middle of the Atacama Desert.

The spectacular Valley of the Moon can be found just 15km from San Pedro, thus called due to the lunar appearance of the form and colour of the rocks. To observe this place at sunset, watching how the light changes the tone of the volcanoes to a deep red, is an experience which has made this place one of the most interesting in Latin America.

San Pedro de Atacama is also the archaeological capital of Chile. The history of the area goes back to 11,000 years B.C., in accordance with the human remains found there.
Minimal information on this page is relevant to the natural text prompt. The document contains information about overseas representatives for a pulp company, including contact details for various countries and regions. The text is not directly related to the prompt and does not require a response.