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GORIČANE

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GORIČANE

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Editorial

Andraž Stegu

This year, I started my fifth 4-year mandate as the managing director of Papermill Goričane. Years of experience have strengthened my belief that the path I had chosen was right for me.

The signing of the agreement on preventive financial restructuring of the company in 2014 gave us a new momentum which we continued in 2015 as well. The current economic situation is difficult and complex for all industries. This is old news. The advantage of our papermill, however, is that we export most of our products, which makes it easier for us to adjust to the current market situation. In addition, we are always looking for new opportunities, whether related to markets, purchasing or development. Competition in the paper industry is fierce. The market is changing all the time and each year represents a new challenge.

With the help and support of financial institutions and our business partners – suppliers as well as buyers – we have been able to successfully overcome any challenges that had crossed our path in 2015.

The ongoing projects focused on energy investments, production and development were continued. We can already feel the positive results of our investment in the energy sector. Projects for production improvements continue as well, and at the same time, we are already working on new projects that will start now and continue in 2016.



Year 2015 in numbers

Andraž Stegu

In the first ten months of year 2015, 68,128 tons of paper were produced and 64,380 tons were sold. A total of 86.8% of production was exported. In comparison with 2014, the net sale revenue in the first 10 months of this year increased by 5% and amounted to EUR 55,781 million.

Foreign market sales amounted to EUR 48,626 million or 87.2% of total income. EU market sales represent 59% of foreign sales whereas the remaining share of foreign sales was produced on markets outside the EU, especially in Turkey. For the past few years, the share of sheet paper sales remains at the level of 40% production.

With the year 2015 coming to an end, I wish you a lovely holiday and all the best in the New Year.



MANAGING DIRECTOR: ANDRAŽ STEGU, B. SC.

ANNUAL GENERAL MEETING

Tea Rezelj

The annual general meeting of Goričane d.d. was held on August 28th 2015.

The meeting was attended by 97.36% of shareholders with the right to vote.

The 2014 annual report and the report of the supervisory board were presented, followed by the adoption of decision proposals. Fiscal year 2014 was concluded with profit.

The meeting reappointed Mr. Izidor Rejc and Mr. Andrej Pagon, M.Sc. as members of the supervisory board, and shareholders were informed of the appointment of Mr. Klemen Burgar as member of the supervisory board (representing the Workers' Council).





Sales in 2015

Andrej Gradišek

After the positive performance results in 2014, it seems like a similar trend will continue this year as well. The production sector was constantly operating at its maximum capacity, even in the summer, and we managed to put out over 7,000 tons of paper a month.

I am an optimist when it comes to our performance because several new projects had started last year which I have already seriously counted on in 2015. Although we were significantly affected by the high price of pulp, we managed to at least partially compensate for it by increasing the prices of our paper throughout this year. Well-coordinated efforts in the purchase, sales and production departments have helped us produce and dispatch a much larger amount of paper than predicted by the annual plan.

We started with a regular production of the Sora Matt Premium paper because we want to enter the highest vertical of the market for 2-side coated papers, especially in Switzerland and Germany. Market updates show that the paper was very well accepted and we are receiving an increasing number of inquiries and orders. I believe we can realistically expect our sales to increase in the future.

In addition, we have produced the first batches of the Sora Matt Cream paper, initially intended for the Turkish market. The feedback we received on quality has been excellent, the tone was well accepted as well and the first projects have already started. Due to the current political situation in Turkey, everything is going slower than expected but our buyer is sure of the paper's success on the local market. We believe we will be able to promote the product successfully in other Middle East countries as well.

A lot of time and effort has been invested in the production of the Sora Transfer paper grade this year. Despite some

issues, the grade has been very successful since we are now the first papermill that managed to produce a 42-gram paper grade which has turned out to be a very promising product. The whole project is very complex and demanding, both in production as well as in packaging and logistics but I strongly believe that in a few months, we will be able to achieve top quality which will help us increase the share of specialty papers in the future.

This year, our position on the market of low-grammage paper grades has been strengthened as well. Although the sales are more or less the same as in 2014, we are seeing new possibilities both on European markets and overseas, and consequently, we can expect numbers to increase accordingly next year.

The biggest boost this year, however, was made with silicone papers, which is in part due to the market situation, especially the fact that one of our competitors shut down the plant, but one of the reasons is also the quality having improved significantly in 2015, enabling us to receive larger orders. The whole market segment is currently growing – three of our biggest partners have predicted capacity increases; two of them will invest in new machinery and one is planning to reconstruct the existing capacities. Currently, our efforts are focused on forming new partnerships in Vietnam and USA, and we expect to make the first sales early next year.

A lot of attention is also being paid to markets closer to Slovenia, where we expect a growth of Sora Matt format paper sales, mainly due to the increase in printing capabilities. Although we have already achieved considerable success in this market, upgraded capacities will definitely provide new opportunities for growth.

This year, we also managed to conclude our first business deals with Iran, a country that is slowly returning to the global market after the grip of international sanctions has been slightly loosened. Fortunately, we have already found a sales channel and pitched a few sales. And of course, we have even higher expectations for next year.

I believe our capacities will be fully occupied until the end of this year, and we will be able to wrap up with success. If we continue to coordinate the cooperation among the different departments in the papermill so efficiently, I believe our performance results should not fail to increase.

PRODUCTION

Paper breaks still a major challenge – part two

Maja Mrgole

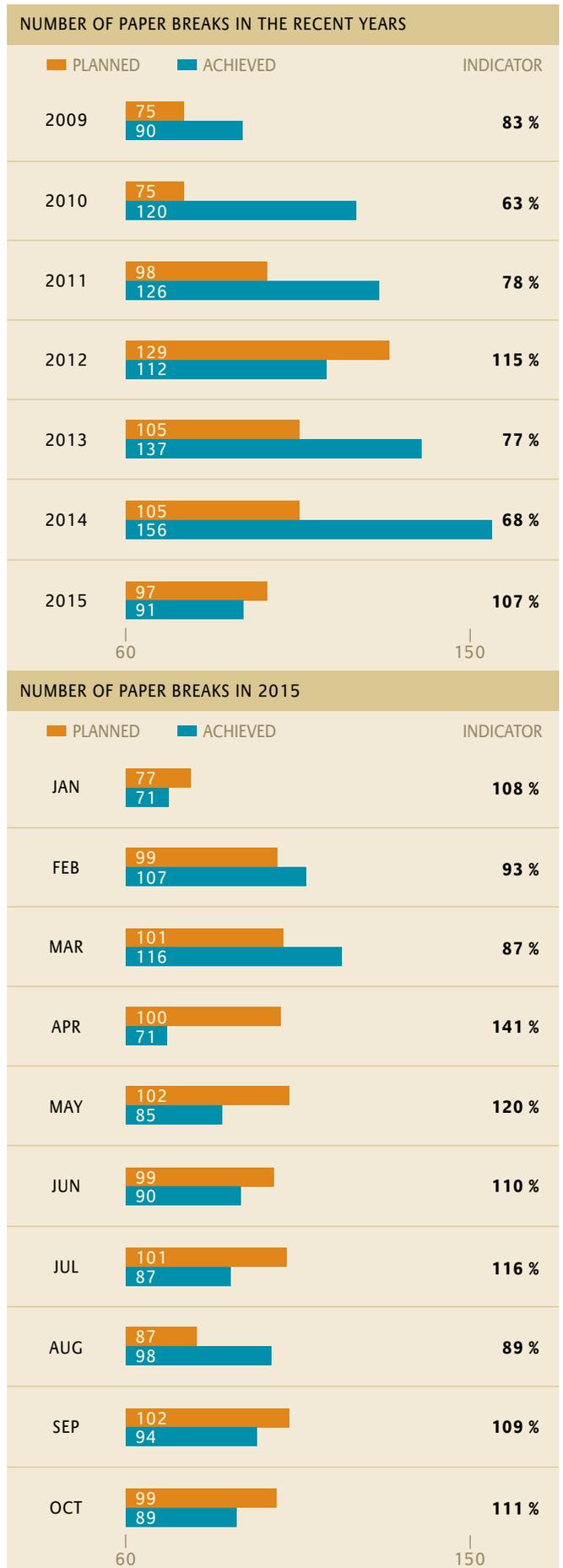
My article in last year's newspaper ended with the following words: »I strongly believe we are capable of successfully completing this project. I have said it before and I will say it again: a good team turns impossible into possible. Personally, I completely trust in the team I was assigned to lead.«

The goal we were focused on throughout the year has been achieved. And not only that – we have exceeded it. The number of paper breaks this year averaged at about 90 per month – take a look at the exceptional diagram below. The project, though planned for completion in December, will remain our main and foremost concern considering solid paper machine runnability being the condition for any further improvement.

Papermaking, however, is an unfinished story, and 2015 was not an easy year for us. We faced new challenges and set to resolve them in the framework of four projects:

1. Reduction of impurities
2. Provision of a stable retention rate
3. Use of concentrated dyes
4. Reduction of the amount of paper removed due to chains, canals and a bad profile

All projects are being successfully implemented. Once again, the famous saying that »practice without theory is blind and theory without practice is sterile« has been proven true, which is why we are continually striving to strengthen the teamwork of both the crews and the managers in production. We receive many useful ideas and they are becoming more and more complex, providing for noticeable improvements. Also, these ideas are increasingly created by teams and not individuals, and it feels like we have made significant progress in realizing that papermaking is a team sport, however, there is still some room for improvement when it comes to communication and respect in our teams. To some extent, system projects will help in this area but most of all, it is up to us to make an effort, we have to keep up honest communication and make sure we start solving any issues as soon as they appear.



PRODUCTION

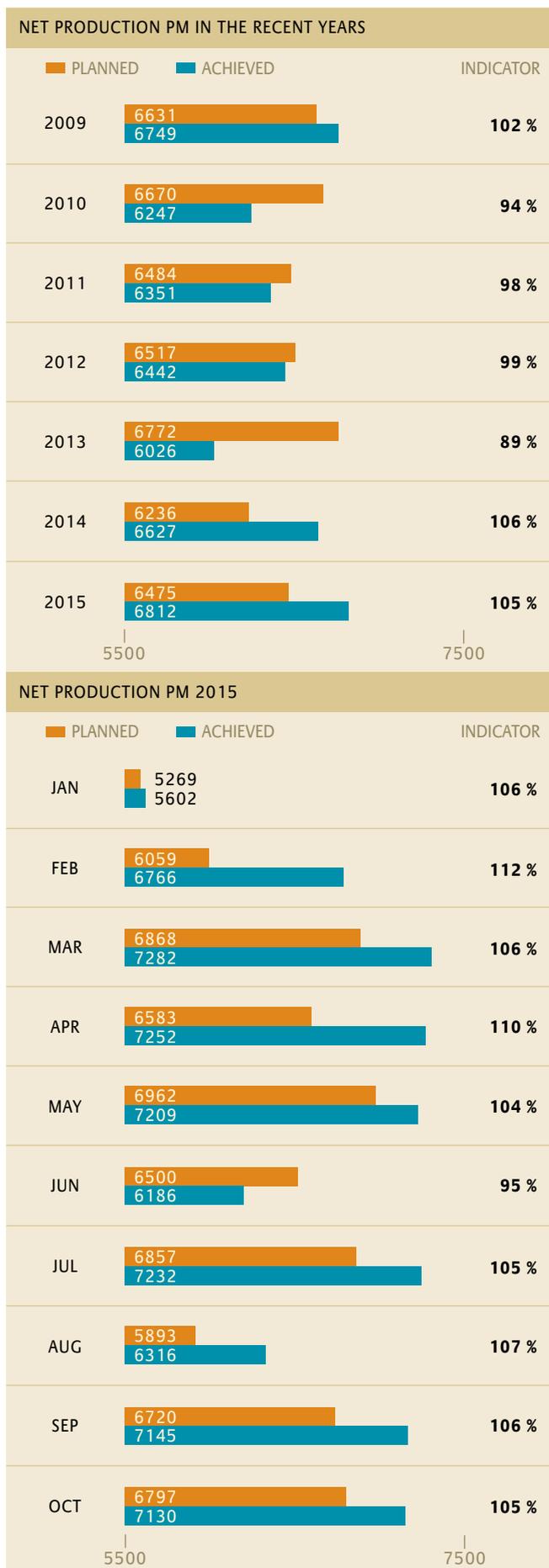
Considerable progress was made with regard to customer satisfaction as well. The not-so-good quality of printing properties in graphic papers has been largely improved, and the issues with the dR (optical bleach content, luminescence) of colour papers going up and down was solved by changing the order and implementing a new dosing pump for extremely low water flows, which allows for optical whitener dosages below 1 ml/min. One of the major buyers of our EPC 47 paper grade has practically stopped experiencing any paper breaks during the process of silicone coating, and the issues with data on labels have been solved as well. In addition, we have been successfully handling (except in September) the whole issue of surface impurities despite the fact that our current camera monitoring system fails to detect the defects, which will be resolved an upcoming investment into a new, upgraded system. Unfortunately, the situation with chains, channels and a bad profile has not been solved yet and has even deteriorated in comparison with the year 2014.

This also affects our finishing department being production's largest customer. Although we did them a favour with transferring the cut-offs to the pulper even during the production of specialty papers on the PM, cutting bad rolls is a real art. Having been fully aware of this issue, a method was established in November that allows us to determine precisely where the overstretched paper is coming from. Currently, the main cause is on the third press but it is too soon to talk about the final results. This particular defect is a major cause for the removal of paper from the production process, which is why we are making the project from point 4 above – *Reduction of the amount of paper removed due to chains, canals and a bad profile* – our main priority in 2016.

And how are things looking for us in the future? We are approaching an absolute record in the annual amount of paper produced. Our plan is to exceed the numbers from 2009, i.e. 80,984 tons per year and 6,749 tons of monthly average respectively. A record like that will definitely increase the standards and make 2016 full of new challenges and goals. Throughout the years, those have somehow become a constant in our operations but - with the help and support of other departments - we keep achieving them successfully. Here is another exceptional diagram that gives us the energy we will need next year.

Hopefully, this is how we will continue to develop and grow for a number of years to come. Be proud of what we have already achieved but prepare to tackle new challenges in the year 2016.

Let me finish with a thought once written by an unknown author: »Where there is a lot of knowledge, there is also a lot of pain but he who collects knowledge, also collects trouble and torment.«



Does our papermill need development?

Klemen Burgar

Many would say that this is a question with a very straightforward answer. Pessimists will claim that no, we do not need a separate development department since apparently everything has already been discovered and researched. Furthermore, Goričane is a very small papermill on a global scale, with one single paper machine. There are many multinational corporations out there that could have taken it over in no time.

But what do the employees think? In my personal opinion, we definitely need development because we have to constantly modify the paper grades we produce and will produce in order to maintain our quality and competitive position.

There have been many questions recently on how to react to complaints. Should we be sad, angry and miserable? While it is certainly discouraging to receive a customer complaint, criticism – on the other hand – can provide us with a constructive perspective of our work, offering a clear picture of what we need to improve, whether it is a change in organization, a technological improvement or reconstruction, a different mixture recipe or an updated work instruction, as well as a stronger commitment and sense of responsibility towards our job.

The department of technology and development is constantly witnessing new ideas and improvements. Any changes on paper have to be based on industrial trials which serve the purpose of testing new raw materials, modifying paper properties or producing new paper grades.

In 2015, 65 industrial trials have been completed so far. Thirteen trials included the testing of seven new raw materials, in one trial we tested a new technology of broke treatment, and others focused on modifications on paper.

New raw materials were tested mainly for additives in stock preparation, and partly for additives in coating.

The biggest focus this year was definitely on the development of the new Sora Transfer grade in grammages 42, 63 and 82.

The following grades were being tested and developed as well:

- *SORA* **matt cream** 90, 100, 115, 135, 150g/m²
- *SORA* **matt premium** 70, 80, 90, 100g/m²
- *SORA* **face** 60, 70, 80, 90, 150g/m²
- *SORA* **light chamois** 60g/m²
- *SORA* **jet press** 80, 90g/m²
- *SORA* **matt w** 80g/m²
- *SORA* **sticky** 82g/m²

In addition, we were testing I-fibre, a new technology for broke treatment.



So where do we go on from here?

R&D in paper industry has been increasingly focused on nanotechnology and nanocellulose, which prompted us to join the Pulp and Paper Institute (ICP) and get involved in the Poly4EMI project.

We are also a part of the „Slovenian strategy of smart specialisation“ project where we are currently waiting for the European tender. According to Ms. Mešl, the director of ICP: „Our joint initiative to make pulp and paper one of the priority investment areas of the Slovenian strategy of smart specialisation (S4) was successful. The adopted strategy (as endorsed by the Slovenian Government in September 2015) includes our proposed guidelines for investing in research and development.“

Energy supply

Janez Gale

Year 2015, despite being rather uneventful in the technical area, was on the other hand quite exceptional in other aspects.

Last year, a new, more energy-efficient steam boiler was installed that replaced two smaller-sized boilers. The initial startup revealed minor issues in the boiler's interior, which forced us to stop its operation and implement some changes in the boiler's lining. The intervention was performed in two separate phases and by the end of November 2014, the boiler was finally up and running – which is what made the current year so exceptional. In a way, we had to learn how to operate in completely new conditions of energy supply, and the newly formed energy situation was dynamically changing the production of paper as well.



It turned out that the very short peaks of demand on the power distribution system sometimes exceeded the values set by certain voltage protections, which is why we first had to adjust the power supply from the exterior distribution system. The second change brought about by the new boiler was the consumption of fresh water. Fresh water is used both in the production sector's technology process and in the energy sector's own process. It is used for the production of steam on one hand and as a cooling element on the other. In the past, cooling water was used especially for the cooling of turbine oil and condenser. The consumption at the time was enormous but it was drastically brought down with the shutdown of the big boiler, the steam turbine and the generator. However, it turned out that our well water pumps were over-dimensioned so we installed a frequency-regulated drive on one of them. Despite that, it was at

times difficult to ensure a sufficient supply of fresh water in production, and new principles of operation had to be adopted here as well. In order to ensure a proper level of pressure and volume in the water distribution system, we will equip another well with a frequency-regulated drive.

Due to the new boiler's ability to adjust to the current need for fresh steam, the energy sector nowadays uses a significantly smaller amount of fresh water for cooling and steam production. The boiler operation is adjusting to the needs of production far better than predicted during investment planning, resulting in a reduced consumption of not only fresh water but natural gas as well.

So far, the new mode of operation has therefore helped us reduce the consumption of fresh water by almost two thirds.

The next, in some sense also an exceptional segment, is the new 20kV distribution line that supplies power to our papermill.

In the past, when the steam turbine was still in operation, we purchased almost a half of the power required from an external distribution system and supplied it via the distribution line from a connection at the nearby Sogefi company. A downside to this supply is its limited capacity, which prevents our papermill from receiving sufficient power in case of a steam turbine shutdown. Although it is possible to get the power from a connection on the Medvode-Škofja Loka distribution line, this particular line is passing above ground level and is completely exposed to the weather conditions, thus increasing the possibility of the whole plant to be left without power supply during storms.

The installation of a new steam boiler was therefore also used for the construction of a new groundline route providing a safe supply with the amount of power necessary. We had been planning a new feed line leading to the papermill for years, and had drawn up studies and project designs outlining the potential routes. We teamed up with Elektro Gorenjska to define the new route and the new connecting post, install the cable pipelines and a new cable. The route itself is constructed in a way that allows for a second independent supply line.

During the course of one single year, therefore, we made a huge step toward a more efficient consumption of energy and energy products, as well as energy costs reduction. It is safe to say that it was full of lessons and has already brought positive results.

Next year, however, we will be mainly focused on optimizing the compressor station and a more efficient consumption of compressed air.

Hearing protection

Petra Hunjadi

Our employees are exposed to noise, which is why the company is obliged to comply with rigorous safety measures concerning hearing protection in the workplace.

According to the legislation, if the level of noise in a certain area equals or exceeds 85 decibels, employers have to provide the necessary hearing protection equipment to any affected employee.

There is a wide selection of equipment available, e.g. various ear plugs, mini mufflers or tailor-made protective plugs. Since our company decided to purchase the latter, the Neuroth company visited us in October to take almost 80 earprints needed for the design of customized hearing protection.

What is a Neuroth Soundsaver® PRO customized hearing protector?

It is a hearing protector tailor-made for a precise fit that has been developed specifically for industrial and handicraft needs. The specific design with an in-depth, integrated switch enables constant air circulation in the auditory canal, which allows us to wear the protector comfortably even for a longer period of time and covered by our protective equipment. Due to the non-linear noise suppression, our hearing is protected but we can still hear and understand other speaking, as well as detect any warning signal.

The advantages of customized hearing protection are as follows:

- Tailor-made to precisely fit the ear
- Optimum protection from noise throughout the workday
- Filters out dangerous frequencies but still enables us to hear and understand speech and warning signals
- Non-linear noise suppression allows for uninterrupted communication (including phone conversations)
- Comfortable to wear even with protective equipment (head protection, face masks, goggles of all types, under welding helmets etc.)
- Can be worn for longer periods of time – comfortable on the skin and with integrated air circulation (pressure regulation, no heat retention)

- Reduced sweat retention in high temperatures (in comparison with regular earplugs)
- Easily cleaned with soap and water
- Selected materials ensure long useful life of the product
- High cost viability due to the long useful life
- Adjusted to the level of noise measured in a workplace¹

We should therefore protect our hearing and given the exposure to noise, make sure we wear comfortably moulded plugs or customized protectors.

¹ Source: <http://www.neuroth.si/zascita-sluha>



Environmental report

Jerneja Pečnik

In 2014, Papermill Goričane met all legislative requirements of the IPPC environmental permit concerning emissions to the environment, and by investing in a new steam boiler, we fulfilled the increasing demands for a decrease in the consumption of natural gas and fresh water, as well as the emissions of carbon and nitrogen oxides.

ENVIRONMENTAL REPORT

Consumption of natural resources

A rational consumption of natural resources is measured by the index of material loss from the production process. Material loss calculated on the waste water treatment plant is based on the amount of extracted sludge. Due to the frequent changes of the production programme, it is very difficult to reach targets set for material loss; we were again unable to attain them in 2014. This year, the numerous measures that were applied in production helped us reduce material loss down to the target value.

In 2014, we experienced a decrease in the consumption of fresh well water caused by the implementation of the new steam boiler and the termination of cogeneration. As a result, water used for cooling purposes will no longer refer to the cooling water used in thermal power plants but will be treated as process water instead. In the production process, the water loop containing waste cooling water from the

Energy sector was opened in order to keep any charges within set limits.

The energy efficiency of our production process in 2014 was reflected by the low level of specific consumption of electricity and heat in comparison with the IPPC Directive. The consumption of natural gas was below the level provided by the available emission coupons for 2014 (surplus of 7,605 coupons).

FSC and PEFC products

In 2014, 10,334 tons of FSC mixed pulp and 18,243 tons of FSC CW pulp (controlled origin) were consumed in FSC production. We managed to sell 7,615 tons of FSC papers (FSC Mix Credit).

In PEFC production, the consumption rate reached 3,103 tons of PEFC certified pulp, and 1,630 tons of 100% PEFC-certified papers were sold.

TABLE 1: Average material loss from production process

	Indicator	Goal	2010	2011	2012	2013	2014	First half of 2015
Material loss	%	0,7	0,81	0,75	0,84	0,88	0,89	0,69
	(calculation acc. to gross production)							

TABLE 2: Consumption of fresh water

	Indikator	Goal	2010	2011	2012	2013	2014
Consumption of water	Fresh water (water wells) 1000 m ³		4.552	4.624	4.401	4.189	3.760
	Fresh water (cooling in the power station) 1000 m ³		3.387	3.492	3.309	2.887	1.925 (cooling as thermal power plant) 485 (cooling as technological purpose)
	Fresh water (technological purpose) 1000 m ³		1.163	1.133	1.091	1.302	1.348
	Spec. consumption of process water	15	14,2	11,6	10,9	16,2	15,4

TABLE 3: Consumption of energy products

	Indikator	Goal	2010	2011	2012	2013	2014
Consumption of energy	Natural gas 1000 Sm ³		15.638	15.987	15.937	14.628	13.462
	Electricity purchased MWh		26.623	26.766	28.809	26.328	36.791
	Emission coupons	32.834	29.309	29.963	29.868	27.416	25.229
	Surplus of emission coupons		3.525	2.871	2.966	5.418	7.605
	Consumption of electricity MWh/ton	0,7 do 0,9	0,580	0,652	0,651	0,647	0,640
	Net consumption of heat GJ/ton	7 do 8	3,93	3,82	3,69	4,05	3,98

ENVIRONMENTAL REPORT

Emissions

To air

Emissions to air are controlled by annual monitoring conducted by an outsourced institution. In line with the requirements of the IPPC environmental permit, the monitoring of emissions to air has to be carried out every third year. The last one was performed in 2012. The results of NO_x and dust measurements are in compliance with the legislation and by investing in a new Bosch steam boiler, we successfully fulfilled the new requirements for the emissions of NO_x to air, with the guarantee value below 100 mg of NO_x/m³ of air.

To water

Before being discharged to the water course, process waste water is treated on the mechanical chemical waste water treatment plant. Annual monitoring shows compliance with the IPPC environmental permit requirements.

In 2014 and the first six months of 2015, the reopened water loop per 15 m³/ton of product allowed us to reach the required limitations regarding emissions to water.

Noise

In accordance with the IPPC permit, noise monitoring is performed every third year. The last monitoring was completed in 2013. Noise measurements on three locations in the vicinity of the papermill were below the maximum permitted limit for daytime, evening time and night time. The next monitoring of noise imissions to the environment is scheduled for 2016.

Waste

Papermill Goričane has a well-established system of separating waste at its source – we have smaller containers for separate types of waste being disposed of by our employees on a daily basis. There are waste disposal units available with separate containers for different types of waste. In 2014, our company has been a part the waste packaging management system



established by INTERSEROH. In 2015, however, we switched to the UNIREC waste packaging management system.

Hazardous substance management

In hazardous substance management, our well-kept and regularly maintained storage tanks and pumpings enabled us to retain a low risk rate. We have prepared a plan of hazardous chemicals management outlining all activities that are necessary in order to make our operations fully compliant with the legislation. Our employees are being regularly trained for hazardous substance management and the course of conduct in cases of accidental spillage of hazardous substance.

Exceptional events

No exceptional events that would affect the environment were recorded in 2014 and 2015.

Environmental goals and programmes

1. The reduction of BOD5 concentration is performed at the event of papermaking water loop opening. We have not yet made the decision to implement a biological waste treatment plant because we are still examining the economic viability and technical treatment ability of such a low process waste water organic charge.
2. The project of reducing emissions of NO_x to air below the level of 150 mg/Nm³; investment in a new steam boiler in spring of 2014. After a trial run with several shutdowns, the boiler has been operating non-stop since November 2014. The initial measurements of emissions to air were therefore conducted at the beginning of 2015 and served to confirm the guarantee values.
3. Reducing noise imissions by installing silencers on the exhaust of the transport cut-off from the rewinder.
4. The project of adjusting and/or replacing the front yard lighting will be a part of 2015 investments.
5. The project of replacing the asbestos roofs further continues in 2015.
6. Reducing the amount of municipal waste by increasing the level of separating waste at its source is currently focused on purchasing additional containers for separate waste. The project continues in 2015.
7. The development of products made of paper sludge is now focused on pulp disengagement and fermentation to obtain useful alcohols. Unfortunately, the results did not indicate an efficient disengagement due to the alcohol yield being too low. This project was led by the Faculty of Chemistry and Chemical Engineering at the University of Maribor, Slovenia (conclusion of the EUREKA ZEROEFF project).

The company management reviewed potential environmental risks and aspects and established environmental goals and programmes for 2015. Resources were allocated accordingly.

ENVIRONMENTAL REPORT

TABLE 4: Emissions to air

	Indicator	IPPC environmental permit	2009	2010	2011	2012	2013	2014	2015
Emissions to air	NO _x mg/m ³	200 150***	163*	163*	163*	152**	152**	152*	64****
	Dust mg/m ³	150	4,2*	4,2*	4,2*	11	11	11	

*Results of the 2009 monitoring

**Results of the 2012 monitoring

***As of November 2014, the concentration limit of NO_x has been reduced to 150 mg/m³

****First measurements of emissions to air on the Bosch steam boiler

TABLE 5: Emissions of substances to water

	Indicator	IPPC Environmental permit (limits by 1.1.2013)	IPPC Environmental permit (limits after 1.1.2013)	2010	2011	2012	2013	2014	First half of 2015
Suspen. solids	mg/l	35		13,5	12,8	16,2	11,8	7,4	8,4
	kg/ton	0,4	0,4	0,2	0,1	0,2	0,19	0,1	0,1
COD	mg/l			146	162	143	71	66,3	91,5
	kg/ton	4**	4**	2,0	1,7	1,5	1,15	1,0	1,1
BOD ₅	mg/l	50**	25**	39	39	39	18	15,5	17,1
	kg/ton			0,6	0,4	0,4	0,28	0,2	0,21
N tot	mg/l	10		5	5,6	5,2	6,1	5,6	5,1
	kg/ton		0,2	0,07	0,06	0,05	0,102	0,09	0,07
P tot	mg/l	2		0,1	0,07	0,09	0,07	0,34	0,06
	kg/ton		0,01	0,001	0,001	0,001	0,001	0,0047	0,0008
AOX	mg/l			0,25	0,12	0,25	0,071	0,086	0,064
	kg/ton	0,015	0,005	0,003	0,001	0,002	0,0011	0,0014	0,0008

**The limit is defined for production with more than one production programme change a day

TABLE 6: Waste

	Indicator	Waste management plan	2009	2010	2011	2012	2013	2014
Paper sludge	tons	max. 1.600	1.739	1.815	1.720	1.879	1.937	2.041
Municipal waste	tons	max. 35	47	51	31	30	35	37
Paper packaging	tons	max. 350	305	280	294	350	392	368
Metal packaging	tons	max. 130	102	123	119	126	133	124
Plastic packaging	tons	max. 40	6	12	9	9	43	37
Wood packaging	tons		33	8	43	57	45	58

5s project for an organized, clean and safe work environment

Petra Hunjadi, Jerneja Pečnik

This year, the company management has decided to implement a project for the establishment of the 5S system in every department involved in the production process in order to increase the level of internal process organization and make it more systematic.

A project team was established, led by the HR manager and the manager of the technical service and management systems department. We appointed the members responsible for the implementation of the 5S project in individual departments. These members include all department managers, shift supervisors, foremen and technologists. The project timetable was endorsed in September and includes the appropriated financial resources, activities and people in charge of implementing these activities in cooperation with all employees. The project is expected to end in April 2016 when the system will function independently in compliance with the requirements of the 5S method in any department involved in the production process. The 5S project will then continue in other sectors (Management, Energy, Wastewater Treatment) that – in order to facilitate the overall management – haven't been a part of the project before.

What is the 5S method?

5S is a method for establishing and maintaining an organized, clean and safe working environment, which is the basis for high quality, efficient, environmentally friendly and more productive work.

It is also a method that changes our perspective of what is a properly organized workplace. Proper organization is of key importance in processes involving more than one person, which is why this method allows for appropriately organized workplaces both in production and in the offices.

How is it done?

The 5S method was developed in Japan and named after five Japanese words starting with the letter »S«.

1-S (Seiri) – organizing and removing all unnecessary items that can be moved elsewhere. This way, we get an overview of which items are located where, thus providing the basis for a specific placement of the items we need. If the first S is well implemented, it tends to improve the communication, quality and productiveness in the workplace.

2-S (Seiton) – arranging all necessary items so they can be easily selected for use. Items should be appropriately marked so we can quickly find them when needed and return them to their designated place afterwards. Any missing items can be easily spotted and replaced before we actually need them, which can significantly reduce unnecessary loss of time in production.

3-S (Seiso) – cleaning after everything has been organized. The third »S« is the process of removing any dirt and waste materials from the workplace. All work areas should be as clean and as organized as possible in order to increase the visibility of potential defects on machines and in workplaces, prevent injuries caused by oil stains, reduce the number of damaged products etc.

4-S (Seiketsu) – standardization. The abovementioned activities should be included in regular daily work and standard procedures and rules of performance, cleaning and organization should be established.

5-S (Shitsuke) – maintenance (keeping in order) refers to a consistent compliance with the standard procedures that become an inherent part of daily work ethics.

What are the benefits of the 5S method?

- Lower production costs
- Timely identification of risks in the workplace and the production process
- Higher capacity of machines and devices
- Longer operational life of machines due to regular cleaning and monitoring
- Improved workplace utilization
- Improved labour utilization
- Improved space utilization, shorter work process
- Reduction of time lost for searching
- Smaller inventory, reduction of losses caused by inefficient inventory turnover
- Improvement of product quality

WORK ENVIRONMENT

- Reduced possibility of product defects due to the elimination of drawbacks and irregularities in workplaces and machinery
- Improved work motivation of employees

How to successfully implement the 5S system?

In order for our employees to have a thorough understanding of the purpose and the rules of the 5S method, a training course was organized for all employees involved in the production process, managers included, prior to the start of project implementation. The course was successfully completed by 121 employees (excluding the ones from management and energy sectors) who actively participated in the training and have already come up with several useful ideas.

In addition to proper training, the success of the project also depends on the level of employee engagement, strong management support, consistent implementation of each single step in the process and a well-formulated system of evaluation and incentives.

Anything is possible if we step together and actively search for solutions – this will become our daily motto. Our project

teams will constantly work on troubleshooting any issues that might occur in areas we are responsible for. We will respect the order and rules in other sectors, and celebrate the success of all teams, ours and all others.

Advantages of 5S

- increased productivity
- well-organized working environment
- safe work environment
- better visual control
- rapid defect detection
- less time spent on searching
- savings in tools and equipment
- better use of space
- improved working conditions

Source: direktiva.eu

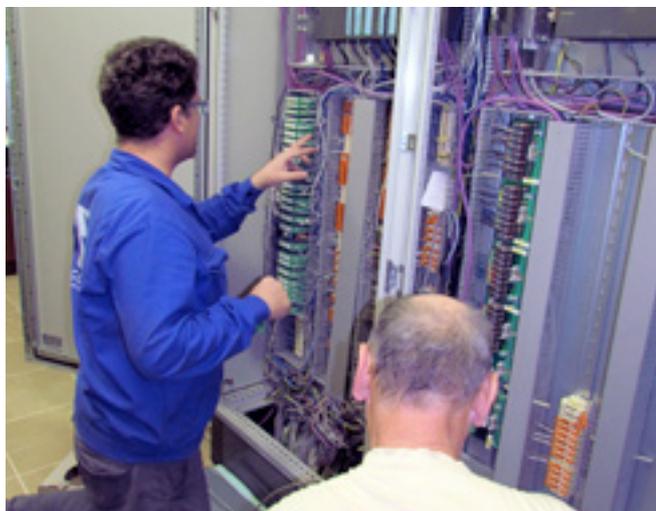


Source: <https://husojasarevic.wordpress.com>

The electrical maintenance sector in Goričane

Andrej Šušteršič

It is impossible to imagine Papermill Goričane without electricity. Electricity gives power to everything, all the machines and devices, from a regular lamp or a light bulb to the most complex computerized production system in the company. Proper operation and functioning of the various electrical devices in our papermill is the responsibility of the electrical maintenance sector.



The sector is divided into three units: electricity, instrumentation and electronics.

The electricity unit is definitely the oldest of the three. The history of this unit started with the electrification of the papermill and production set up, which of course brought about the need of constant electrical maintenance. The unit nowadays employs Milan, Lojze, Aleš and Klemen. Their main responsibility is to conduct regular electrical maintenance service throughout the papermill regardless of whether it is just a light bulb replacement in the main building, electrical

installations, installation of power controls in the NN switch-gear, electric motor overhauls etc. In addition, their assignments include tasks related to the so-called high voltage area in the papermill. The technology of production process management requires the staff of this unit to have a basic understanding of the computerized controller technology and related systems. The former »traditional« electrotechnology in production is nowadays practically non-existent.



The second oldest unit is the »instrumentation unit«. It was established due to the increased number of various measurements and regulations required in the papermill after the construction of the paper machine. The staff of this unit is mostly engaged in the maintenance, service repairs and installation of pneumatic drives (»on/off« valves), various measurements (of pressure, temperature, flow rates, pH etc.), pneumatic regulation (control valves) and related pneumatic technology. During measurements, the so-called physical properties have to be transformed into an appropriate electrical signal for eventual processing and display on individual control systems. Compressed air is the most frequently used regulation medium. Our employees have to be well versed in the rules of hydraulics since their assignments may include the maintenance, service repairs and settings of individual hydraulic regulators and their components. The unit employs Martin, Silvo and Niko.



PERSONNEL



The electronics unit is the most recent of the three. It was established due to the increasingly important role of computer-controlled technology in our papermill and the industry in general. Terms like PLC, Simatic, DNA, QCS, DCS, DAA, MMA, SCADA or WIS probably do not mean much to most of our colleagues, but they all refer to the implementation of control, regulation and visualization as well as the quality control of our production process and products. It is really impossible to imagine a modern production process and related devices not being supported by computers and IT technology. Lojze, Matjaž in Andrej are skilfully integrating the technology in their everyday work, thus contributing to efficient and quality production.



In practice, the tasks and assignments of all three units are quite linked and intertwined. Even a simple adjustment of the pump strokes to the level in a tank, for example, requires a well-coordinated effort by all three units. The electricity unit prepares everything necessary for the connection of the electric motor to the frequency converter, e.g. installs the cable, connects the drive and the converter etc. The staff of the instrumentation unit then prepare a level gauge, install it and connect it into the control station. The whole process is then wrapped up by the electronics unit where, at the request of the production department, they use appropriate controller software (SIMATIC, DNA ...) to create a regulatory loop with

proper control visualization to the selected system. Only teamwork and coordinated mutual cooperation in the electrical maintenance sector can provide good results.

Given that the staff of our sector only works regular working hours, we are usually on call for emergency failures or irregular systems operation in the production process. If that happens, the person on duty has to come to the papermill regardless of the day or the time, whether it is during the night or on a holiday. This can be quite exhausting, especially after night time interventions, because we still have to come to work in the morning as usual.



And what about my assignments? I am mainly responsible for the coordination of work in each unit - both within the supporting services sector and with production and technology, I order spare parts if necessary, prepare the electrical maintenance sector for investments, organize visits of external contractors who help us out with the more demanding issues emerging in our daily work ... and much more.



The aim of this article was to briefly outline the electrical maintenance sector. Images from our daily work can be seen on the photos, however, if anyone is interested in details, I or any of the unit managers would be happy to show you around and explain what we do.

INTERVIEW:

Roman Mihovec

Petra Hunjadi



During the summer, Mr. Roman Mihovec celebrated 30 years of employment at Papermill Goričane, and later this year, Saint Nicholas brought him the »present« of retirement.

Towards the end of his career, Mr. Mihovec worked as a cross-cutter operator. His main responsibility was to turn rolls into quality cut format paper while maintaining optimum machine speed. This particular line of work is very demanding and includes high liability – the process needs to be closely monitored at all times to prevent potential complaints and customer dissatisfaction.

When did you start working at Papermill Goričane and how?

I started working at Papermill Goričane on June 1, 1985 as a wastewater treatment plant operator. Prior to that, I had been employed as a phone switchboard fitter. The job included constant travelling all over our former country but I wanted to spend more time with my young family.

How do you remember your first days in Goričane?

My first day began with a big overhaul which gave me the opportunity to be »thrown« directly into the dirtiest work right away. At the time, there was only one wastewater tre-

atment plant operator shift, which sometimes made me really uncomfortable. The most dangerous situation I experienced were the floods on November 1, 1990 when the river Sora flooded the command areas of the wastewater treatment plant and all the facilities located by the river.

In summers, when the level of water was low, teenagers from nearby villages would often cross the dam and enter the papermill's area which was of course prohibited, resulting in sometimes very interesting situations.

After the pulp mill was shut down, capacities were reduced and the wastewater treatment plant was left with one operator only. The rest of us were relocated to other departments. So I started working as a cross-cutter (PRS 1) operator, and later on moved to PRS 2.

What did you like most about your work?

For me, the most important thing was well-cut paper because it was a sign of quality and I knew it would make a good end product that would not disappoint our customers. It was also interesting to learn about the different grades and properties of paper.

How do you usually spend your free time?

When my children were small, I spent most of my free time with family, and now I enjoy hiking or cycling with my wife and friends, exploring our beautiful Slovenia. I also have five grandchildren who bring me a lot of joy.

Do you have a life motto?

Be honest in what you do, respect others and always respond with a kind word.



INTERVIEW:

Drago Kopač

Petra Hunjadi



In October, after 38 years of working at Papermill Goričane, Mr. Drago Kopač entered a new period in his life – he retired.

Mr. Kopač was employed as the head of spare parts storage hall, but he was also responsible for any tasks related to construction maintenance. The head of storage hall carries a huge responsibility since he has to organize the hall in a way that allows for safe, professional and quality in collecting, storing and handing out goods and materials. It is also important for the head to have people skills – he needs to be able to communicate well and coordinate the daily assignments well. Mr. Kopač was definitely the right person in the right place.

When did you start working at Papermill Goričane and how? How do you remember your first days in Goričane?

I started working at Papermill Goričane in June 1978 as a carpenter in the construction workshop. The job itself was very interesting because at the time, almost all carpentry, construction, woodworking, painting and other works were performed manually by our team. The construction department had a staff of 24 employees. Later on, an arm injury forced me to retrain and for a while, I worked as a technical sketcher. However, one of our construction clerks fell ill and I often acted as a substitute. After the construction department was shut down, I worked in administration for a while, and ended up as the head of storage hall and construction maintenance.

What did you like most about your work?

Throughout the years, I have worked on many interesting tasks that were varied enough to keep me motivated. I was very happy when I received an additional assignment related to the construction works in our company.

Working in the storage hall can be very engaging as well. I have to communicate with different people on a daily level.

However, the event that I remember the most is the reconstruction of the paper machine.

How do you usually spend your free time?

I love gardening and sports – I enjoy watching a game here and there, especially if it is a hockey match. I also play hockey myself and train once or twice a week with other veterans.

Do you have a life motto?

My life motto is: be honest to yourself and to others.

Anniversaries in 2015

Andreja Kalan

The following people were rewarded for 10, 20 or 30 years of service.

For 30 years:

- Karmen Bernik,
- Alojzij Bogataj,
- Roman Mihovec.

For 20 years:

- Ivica Bijelić,
- Maja Mrgole,
- Jerneja Pečnik,
- Dušan Stipič.

For 10 years:

- Andrej Bizant,
- Marko Gaber,
- Franci Laknar,
- Mirko Laznik,
- Janez Košenina,
- Duško Stojanovič.

New family members were welcomed by:

- Lidija Pervinšek (sin Nik)
- Marko Žiberna (hči Eva)
- Isa Islamaj (sin Liam)
- Miroslav Pepić (sin Aleksandar)

Congratulations!

PERSONNEL CHANGES IN 2015

Andreja Kalan

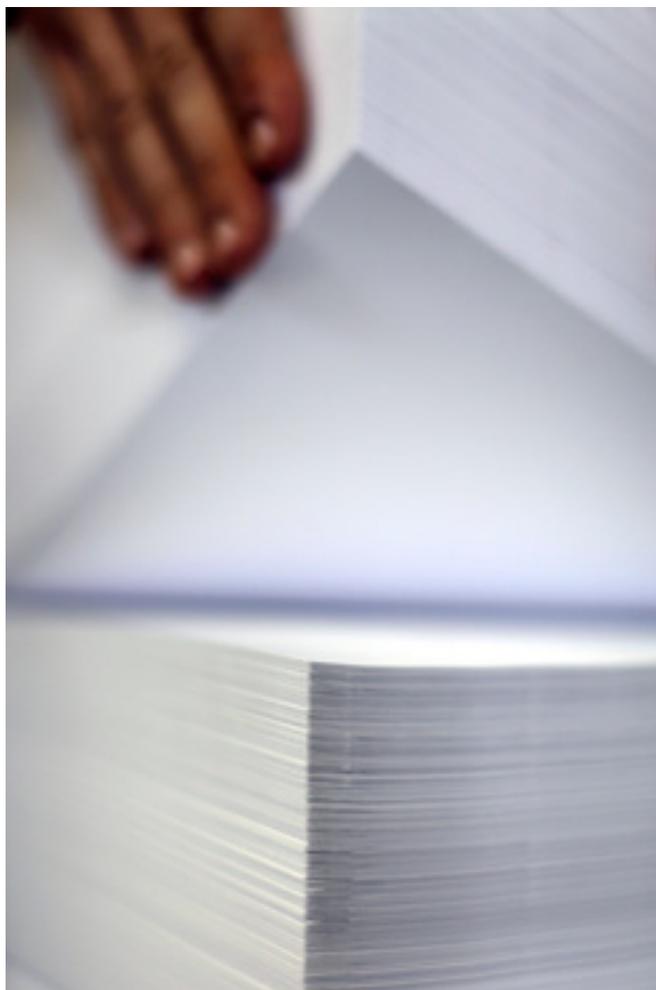
13 employees left the company this year since the last issue of newspaper.

Retired:

- Roman Arčon,
- Marija Mihovec,
- Drago Kopač,
- Roman Mihovec,
- Cene Gregorin.

9 new employees:

- Damijan Kozole,
- Emir Midžan,
- Darja Krašna,
- Gregor Trampuš,
- Rok Košir,
- Nedžad Malkić,
- Dragan Lepojevič,
- Jovica Nikolov,
- Nikolaj Jerič.



UNIQUE IDEA – DIY RECYCLED »PAPERMAKER'S« ADVENT WREATH

Petra Hunjadi

The red-green combination is definitely the most popular design in advent wreath decorations.

However, we can also choose a more minimalist version of the wreath, made from one type of material only.

For papermakers, it might be especially interesting to create a wreath out of old newspapers, magazines or even books.



YOU NEED:

- waste paper (magazines, newspapers, ...)
- cardboard
- scissors
- adhesive tape

INSTRUCTIONS

First, make a cardboard base. Then take pages from books, magazines or newspapers and roll them into tubes (see photos). Make a lot of tubes and glue them to the base in the shape of a circle. If you like, you can also use zig-zag shears to cut the tubes. Repeat until you fully cover the base of the wreath.



MERRY CHRISTMAS AND
HAPPY NEW YEAR



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