

Saiccor

The First 50 Years



Sinclair Stone

sappi

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and opinions expressed in this book are those of the author.**

Foreword

In the typical Sinclair Stone manner, this history of Saiccor has been thoroughly researched, is precise in its rendering and is, where necessary, blunt in its comments.

While parts of the work are necessarily technically detailed, the work is largely the story of the people who have worked at Saiccor; and appropriately so, for it is the people associated with Saiccor who have made it what it is.

Sinclair Stone stands front and centre of this host of good people, with his unwavering commitment to the business and his real affection for the disciples of Saiccor.

It is fitting that this legacy has been given to us by the man who is, in himself, a legend at Saiccor, and it is with sincere gratitude that I acknowledge the work that Sinclair has put into this history, compiled on the eve of his retirement after thirty years with the Company. No one else could pretend to take on the task.

Anyone aspiring to make a career at Saiccor, or wishing to understand what makes Saiccor tick, should read this book.

ALAN TUBB

Umkomaas
April 2002

Preface

Not only is the story of Saiccor an important part of South African industrial history, it is also a fascinating tale of enterprise and endeavour that deserves to be preserved for posterity.

The pioneers of Saiccor have all died, but the legacy they created grew into a highly successful business which, as the twenty-first century approached, was the world leader in its field.

It is the only South African company outside of the mining industry that has successfully survived for 50 years by exporting its entire production. It is also unique in the history of immigration, where a large number of people from a small area of Italy emigrated at the same time to a small area in South Africa.

The secret of Saiccor's success has been its people. During its first 50 years some 10 000 people have been employed by Saiccor. In a story of this nature, it is only possible to mention a few of these employees. However, each and every one of the 10 000 people made a contribution to Saiccor's success.

Numerous outside companies and individuals have also worked for Saiccor from its inception, and they too have contributed to its success.

Sinclair Stone
March 2002

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Minutes of Board meetings from 4 October 1951.

Acknowledgements

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Dedication

**For all those people who worked for –
or performed work for – Saiccor**

The Cantacuzene Period (1952 –1965)

Saiccor's first Managing Director (although the title at the time was General Manager) was Michel Cantacuzene, or more properly, Prince Michel Surgueyevitch Cantacuzène, Count Spéransky, a Russian aristocrat who had fled with his family to France in 1919 during the Russian Revolution when he was six years old. (The family name has been traced back to the eleventh century in Russia.)



*Michel Surgueyevitch Cantacuzene,
Managing Director of Saiccor, 1952–1965*

Cantacuzene joined Courtaulds (France) in September 1933 after his father had put in a good word with John Hanbury-Williams, a senior director of Courtaulds (London) who was married to Cantacuzene's cousin. In January 1950, Cantacuzene married Barbara, his second cousin, and daughter of Hanbury-Williams (by then Sir John, and Chairman of Courtaulds). In September 1952, Cantacuzene was asked to run Saiccor by Sir John Hanbury-Williams and Dr Franco Marinotti (Count of Torviscosa), President of SNIA.

The origins of Saiccor, however, go back to 1912 when a young Scots immigrant, Major Peter Rattray (later DSO), purchased a farm in Kwambonambi. The area was completely underdeveloped when Rattray started cultivating sugar cane and cattle ranching. During his absence at World War I, his wife Ethel planted some *Eucalyptus saligna* (blue gums) around a shack as a windbreak. On his return, Rattray noticed the phenomenal growth of these trees, which he discussed with a Government Forestry Officer who encouraged him to embark on an extensive *saligna*-planting programme.



Major Peter Rattray

The first plantation started in 1922 and in 1928 the first commercial trees were felled and sold as props for the mining industry. In 1928, Rattray had his timber tested for making paper by the Imperial Institute in London, but it was found to be unsuitable because of the short fibres. In 1933 the mines expanded and Rattray sold his timber plantation to Hunt, Leuchars and Hepburn, who set up a mining timber mill at Kwambonambi. (Rattray continued planting.) This encouraged others to grow timber in the area. In 1937, Major Rattray died from an attack of malaria, and his son, Loring Rattray, took over the family interests.

Saligna plantations had expanded to the point where a surplus was developing. In 1941, Loring Rattray founded the Waterton timber mill, the first sawmill in Zululand to produce sawn timber commercially. This, however, was not sufficient to mop up the surplus and Rattray contacted the Imperial Institute to see whether *saligna* could be used to make rayon pulp (now more commonly called dissolving pulp, as wood pulp is first dissolved in chemicals and then reformed into rayon or viscose or cellophane). When the tests proved positive, Rattray started to look for overseas interests to build a rayon pulp mill on the Nseleni River, near Kwambonambi.

Courtaulds, a large British textile fibre producer, on a visit to the Imperial Institute, learned of the surplus timber in Zululand, and was attracted by the possibilities. The original Courtaulds were a Huguenot family who in 1686 sought religious freedom in London, where they became gold and silversmiths. The first to enter the textile industry was George Courtauld (1761-1823), whose son Samuel set up his own silk factory in Bocking, Essex, in 1816. In 1828 the company converted into a partnership, then a private company in 1891, called Samuel Courtaulds and Company Limited. The firm became a public company in 1904 and was reorganised under the title Courtaulds Limited in 1913.

Legend has it that Courtaulds received a kick-start by supplying black silk to the courtiers of Queen Victoria after the death of Prince Albert. The company produced silk and silk products such as crepe



Loring Rattray in a
saligna plantation,
1960



Loring Rattray



ABOVE: Before the saligna plantations, c.1920

BELOW: The first nursery, in the 1920s



de Chine and chiffon. In 1904, they bought the patent rights of the viscose process for producing textile yarn from the cellulosic solution, discovered and developed by British chemists Cross, Bevan and Beadle.

A new factory, the first commercially successful venture for the manufacture of viscose rayon, was set up in Coventry in 1905. They expanded the business in the UK, then into the USA in 1910, into Canada in 1925, and helped develop the industry in France, Germany, Italy and Spain. Sir John Hanbury-Williams was appointed chairman of Courtaulds in 1946.

Until the end of World War II, Courtaulds bought all their wood pulp on the open market. After the war, they were encouraged by the British Government to search within the Commonwealth (to keep expenditure in sterling) for a source of raw material from which cellulose could be extracted. The Zululand timber they heard about at the Imperial Institute sounded ideal. Courtaulds soon demonstrated to their own satisfaction that here was a very promising raw material for the production of rayon pulp. They then looked for a partner with pulp-making experience, which they lacked, to form a joint venture in South Africa. They found SNIA (Societa Nazionale

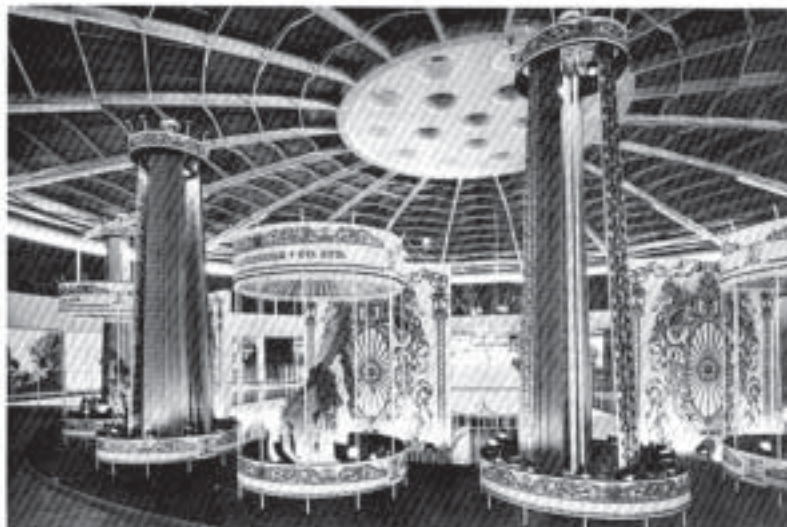


*Sir John Hanbury-Williams,
Chairman of Courtaulds
1946–1962*

December 1960

The Raypulp Recorder

5



Samuel Courtaulds and Company's stand at the Rand Easter Show, April, 1960

TODAYS RANGE OF COURTAULDS PRODUCTS INCLUDES:

MAN-MADE FIBRES – viscose rayon, acetate, triacetate, regenerated protein, alginate, acrylic, and polythene yarns and fibres. Nylon yarn and staple is manufactured by an associate company.

CHEMICALS – sulphuric acid, carbon disulphide, petrochemicals, acetate flake, methyl cellulose, etc.

PACKAGING – transparent cellulose film, polythene and other films, conversion and printing of packaging films, fine fluted corrugated paper, metallic capsules, foil, collapsible tubes, steel drums, tin boxes, cans, waxed cartons, etc.

PAINT – industrial, marine, aircraft, transport and decorative paints and finishes.

PLASTICS – acetate moulding powders, transparent film, extrusions and sheet; moulded articles and components in different types of plastic; developing extruded sheeting in polystyrene, polythene and polypropylene.

ENGINEERING – EHQ provide an authoritative service on all architectural, civil, mechanical and electrical engineering matters. The Engineering Production Shops manufacture specialist machinery.

WOODPULP – Cellulose Pulp from Saicor and Kraft Pulp from Usutu.

FABRICS AND GARMENTS – using man-made fibres, silk and blends.

STEEL TYRE CORD – being developed.

RESEARCH – eight main research laboratories.

TRADE DEVELOPMENT – a large staff of technologists have at their disposal a wide range of textile machinery and experimental plants to promote the use of Courtaulds products.



Jacquard woven fabric by Courtaulds used for a hallroom model by Victor Stiebel

An excerpt from The Raypulp Recorder (December 1960), advertising the range of products produced by Courtaulds

Industria Applicazioni), a large Italian chemical company whose subsidiary SAICI (Societa Agricola Industriale Cellulosa Italiana) operated a rayon pulp mill at Torviscosa, in the northern Italian region of Friuli (north-east of Venice, bordering on Austria and Slovenia), and who were also using *Eucalyptus* as an alternative raw material. SAICI was the brainchild of SNIA's president, Dr Franco Marinotti. The increasing demand for rayon in the years before World War II encouraged Marinotti to build a pulp mill. As Italy had no timber resources, Marinotti urged his laboratories to develop a method to make pulp from the reed *Arundo donax* (similar to sugar cane). The

laboratories succeeded and in the year Marinotti became President of SNIA, 1937, a marshland north-east of Venice was developed into *Arundo donax* plantations (the total site including plant and equipment covered 5 300 hectares).

The pulp mill was built in 1938-39, eventually reaching a capacity of 100 000 tons per annum. Benito Mussolini officially opened the site on 21 September 1938. Also on the site was a chloralkali plant, an alcohol distillery, a caprolactam plant and a dairy herd of some 2 500 head. SAICI were the first to successfully produce dissolving pulp from *Eucalyptus*, previously considered unsuitable, and set up an associate company, SNIACE, to build the first *Eucalyptus (globulus)* dissolving pulp mill (in operation in 1951) in Torrelavega, Spain. (At the time of building Saiccor, SAICI also built a similar mill in Chihuahua, (Mexico) but with a prehydrolysis stage for softwoods. SAICI later built two further mills in South America, two in Russia and one in India.)

The first Courtaulds/SNIA mission came to South Africa in September 1950 (two members of the mission arrived on the last flying boat to land on the Vaal Dam on a scheduled flight from London). In the mission from Courtaulds were W G Daroux, D R B Mynors, and F C Aldred; from SAICI, A Brunetti and E Stefanelli. All in time became directors of Saiccor.

The other members of the mission were Dr W D Spencer of Courtaulds and Mr D Bassi and Col. A Hancock of SNIA.



Dr Franco Marinotti, Count of Torviscosa, President of SNIA 1937–1956



An Arundo donax plantation. This reed was utilised at first for the production of pulp and alcohol

Fred Aldred, a bright young chemist, had a close association with Saiccor until his retirement in the 1980s. From the mid 1960s as a technical adviser to Lord Kearton, then Chairman of Courtaulds, he was a powerful figure at Saiccor. Fred would often appear unannounced in the plant dressed in a tweed sports jacket, with leather patches on the elbows, and a camera slung around his neck. He would discuss what he had seen with the local management, and he certainly knew what he was looking at, and then report back to Kearton. Oakley Tainton, then MD of Saiccor, would soon know of anything that displeased Kearton. Thus the relationship between Aldred and Tainton became strained and the story of an exchange of telexes between the two is as follows:

Aldred: *'I will be arriving on the 18th.'*

Tainton: *'That will not be convenient as I will be away.'*

Aldred: *'As I am a director, it is not absolutely necessary that you are there when I visit.'*

Tainton: *'I have instructed the gate guard not to let you in.'*

Fred kept in touch with Saiccor's process, gave advice on expansion plans, and was quite involved in the development of the flock plant.

When Kearton retired from Courtaulds in 1975 to run British North Sea Gas, Aldred's power base disappeared and he ceased to be a force at Saiccor. He retired to the Lake District in 1982 and died in 1993.

The mission's objectives were to confirm the timber supply, to find a suitable site for the mill that had an adequate water supply (at least 100 000 m³/day, according to SAICI), access to a port (for the product) and to find a local partner.

The mission first called on the local pulp and paper company Sappi, in Johannesburg, where they received a cool reception. Sappi had already decided to build a paper mill on the Tugela, and were not keen to have a competitor for timber. The mission then went to Durban to consult Mark Bernstein of Campbell Bernstein and Irving (CBI) on what rivers, other than the Tugela, could supply 100 000 m³/day. The choice was either the Mkomazi or Mzimkulu. The Mkomazi was selected as it was closer to the port of Durban, and of course closer to the forests in Zululand. A visit to Rattray's plantations in Zululand impressed the mission and confirmed all they had heard.

The mission sought and found a local partner, the Industrial Development Corporation (IDC). The IDC had been set up in 1940 as a parastatal organisation to help develop industry in South Africa and had been involved in the formation of such well-known companies as Sappi, Sasol, Foscor, Safmarine and Masonite.

The mission went back to prepare feasibility studies. SNIA started the plant design with Dr Alessandro Brunetti, MD of SAICI, heading



Fred Aldred of Courtaulds had a close association with Saiccor until his retirement in the 1980s



A photo taken in 1950 of the original team that investigated the feasibility of the Saiccor project. From LEFT TO RIGHT are: FC Aldred, Dr WD Spencer, WG Daroux (all from Courtaulds), L Rattray (a Natal tree farmer), D Bassi, I Stefanelli, A Brunetti and Col. A Hancock (all from SNIA-Viscosa)

the team. They also conducted pilot plant studies which were not completely successful, for although it made a good pulp, it was too soft to go through the drying machine. The IDC selected the site and examined the supply of services such as timber, electric power and water.

Courtaulds produced a proposal for a 110 ton/day pulp mill. The company, the South African Industrial Cellulose Corporation, soon to become SAICCOR, was registered on 12 September 1951, with Courtaulds, SNIA and the IDC each having a third of the shareholding. SNIA were to design, build and commission the plant (which they welcomed as they not only had the expertise but were overmanned at the time after having to re-employ all former employees returning from the war). The IDC supplied all the local expertise and were responsible for all external services and logistics. Courtaulds wanted the product, and had the overall responsibility for the success of the project. The project was to be managed by the Saiccor Board.

The first Board of Directors was appointed on 3 October 1951 and consisted of Claude Cornish-Bowden (Chairman) (IDC), Alessandro Brunetti (SAICI) and Wilfred Sheldon (Courtaulds). The first Board meeting was held in Johannesburg on 4 October 1951, followed by a further four in 1951, and eight in 1952. From November 1953 the venue moved to Durban and from November 1954 to Umkomaas.



The original Saiccor logo designed by Piero Miniutti was in use until the 1960s, even though one of the 'hands', SNIA, sold its interests in 1956

From 1953 Dr Hendrik van Eck took over the Chairmanship of both IDC and Saiccor, although Cornish-Bowden remained on the Saiccor Board until July 1956. Also from 1953 the number of Board members increased to 12 (four from each partner). Courtaulds kept the chairmanship of Saiccor for IDC chairmen: Claude Cornish-Bowden, Hendrik van Eck, Siegfried Kushke, Jan Kittshoff, Oakley Tainton (an IDC man although not chairman), and Koos van Rooy. The only non-IDC man to be Chairman of Saiccor (until the Sappi purchase in 1988), was Norman Wooding, deputy Chairman of Courtaulds who had the chair from 1983-1985. In 1961, Wilfred Sheldon became the first Saiccor employee to achieve 10 years service (he resigned from the Board on 29 October 1964).

SNIA (through SAICI) started placing orders for plant and equipment in September 1952. At the same time Saiccor bought land for the factory, some 4 km upstream of the Mkomazi River mouth, from the Illovo Sugar Estates (established in 1890).

The first sod was turned in November 1952 and work commenced with Rush and Tomkins doing the earthworks, Roberts Construction/Concor (the local contracting company)– with Douglas Roberts in charge – doing the civils and buildings, all under the control of consultants CBI, headed by Mark Bernstein. Prof. L Manfredini of SAICI had overall charge of all civil and building design and construction. The rail line to the factory was opened on 5 November 1953 and the road in January 1954. (In 1862 the Natal government built a harbour at the Mkomazi River mouth and for a short time cargo vessels used it. Twin townships (North and South Barrow), were laid out on its north and south banks. These names persisted until 1924 when the whole area was renamed Umkomaas.)

In January 1953 Cantacuzene set up an office in Albany House in Durban while the factory was being built. Each of Saiccor's partners had representatives at this office. From SNIA was Camillo Pianto (Cantacuzene's deputy), from Courtaulds was Bill Hastie, Works Manager, and from the IDC were Oakley Tainton, Commercial Manager, John Carrick, Secretary and Chief Accountant (who retained the position until he retired at the end of April 1978; he was appointed to the Saiccor Board in 1976), Stan Gay, Buyer and Jock Mitchell, the Zulu-speaking Personnel Officer. Alec L Thomson, Oakley Tainton and John Carrick became the first employees to achieve 20 years service in 1973. Tainton was the first to achieve 30 years in 1983.

Timberland was bought, with trees, from Rattray for £500 000 (including Waterton Timbers). Although Cantacuzene signed the cheque, the deal had been negotiated with the IDC, leaving Rattray somewhat bitter because he felt he had not been given a fair price.



Wilfred Sheldon



The original South Barrow Hotel (c. 1920)

Saiccor bought the New South Barrow Hotel in 1953 to accommodate the Italian artisans. Once Saiccor was in operation, Cantacuzene tried to sell the hotel but could not, and so decided to run it as a business. He renamed it The Lido, gave it a facelift, and hired an Austrian, Hans Ainhirn, to run it. As the hotel was only just ‘jogging along’, Cantacuzene added an Olympic size swimming pool in 1957 and a small nightclub. The dance floor was level with the bottom of the pool and the dividing wall between the two had a plate-glass window through which the night revellers could watch the swimmers. The Lido soon became very popular with people from Durban, particularly for Sunday lunch at the pool and Saturday night at the nightclub, and was the venue of most Saiccor functions, including some lavish affairs like the Carnevale di Venezia, and beauty pageants. However, its popularity waned and it was sold in 1986 by Gordon Campbell. It



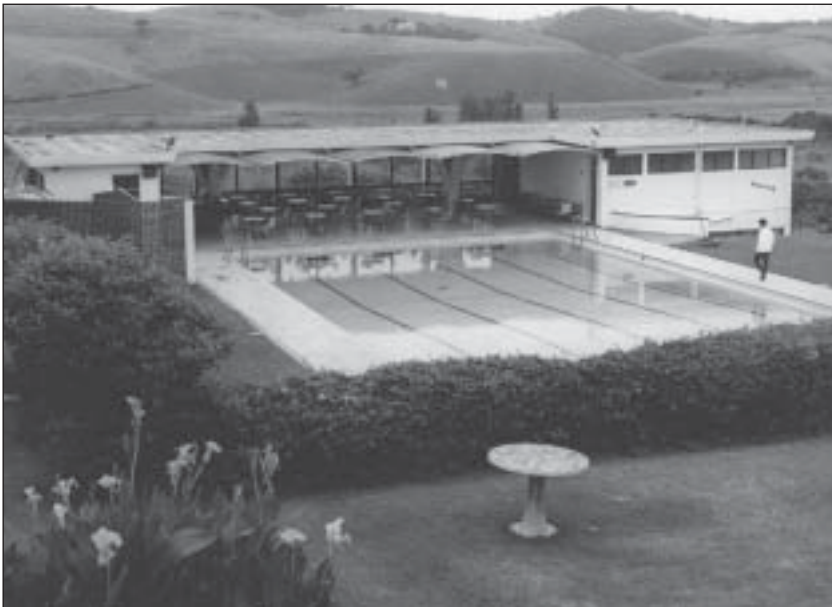
Alec L Thomson, TOP, (joined 5 January 1953), Oakley Tainton, MIDDLE, (joined 1 March 1953) and John Carrick, BOTTOM, (joined 1 July 1953) became the first employees to achieve 20 years service in 1973



The New South Barrow Hotel (c. 1930), purchased by Saiccor in 1953 to accommodate the large influx of Italian artisans



The Lido Hotel (c. 1980), originally the South Barrow Hotel, became a popular haunt for Saiccor employees until its sale in 1986



The Lido pool and gardens overlooking the Mkomazi River

changed hands numerous times after the sale and is currently the Sea Fever Lodge.

In 1953 Arturo Bozzone arrived in Umkomaas from Johannesburg (he had immigrated to Pretoria from Italy as a young man of 18 in 1928) to cater for the Concor workers, operating from the Shotley Hotel. When Concor left he lost his job. Undaunted, he set up a warm and often lively Italian restaurant in Umkomaas, which was soon recognised as the best in Natal outside Durban. In 1957 Bozzone took over the shops in Saiccor Village. There, in the butchery shop, Ferruccio Monte – one of the Italian artisans who came out in 1954 – started making Italian meats in his spare time, which was natural enough as



The first location of Bozzone's Italian Restaurant, in Umkomaas, 1960

both his father and grandfather were butchers. In 1963 Ferruccio married Bozzone's daughter Renée, and in 1970 he left Saiccor to go into business with Bozzone. He set up and ran Italian Meat Products, an Italian delicatessen and meat factory. From small beginnings, the Italian meat factory became very well known throughout the country, processing one and a half tons of meat a week, mainly pork and beef, specialising in salami, prosciutto, coppa and pancetta. Today Ferruccio's son Piercarlo still runs the business, with a little help from his father.

Meanwhile, in July 1961 the *ristorante* moved to larger premises, where its great popularity persisted for many years through the efforts of Arturo, sons Ezio and Roberto and son-in-law Ferruccio, with homemade food, homemade music, and dance. The sight of the Bozzone family having lunch became a familiar one in Umkomaas, with 10 to 15 of them sitting at a restaurant table, none eating or drinking until the 'old man', who was invariably late, took his place at the head of the table. The ceremony could then commence.

Alas, all that remains of this once thriving enterprise is the 'The Whaler'.



Legendary restaurateurs. TOP, Roberto and Ezio Bozzone and Ferruccio Monte and BOTTOM Ferruccio Monte and Arturo Bozzone

In early 1954 the factory buildings had progressed to the point where preparations had to be made to bring out the Italian technicians and artisans from SAICI to erect the plant and equipment. The Italian government wanted as many people as possible to participate (in order to help with their unemployment problem). While the South African government was happy enough to accept the Italians, they were certainly not prepared to accept any communists. As a result, the South African authorities scrutinised each and every applicant, despite the fact that SAICI's Dr Fabio Fonda had handpicked them all. This caused delays and frustrations.

In March 1954 Francesco Nardi, the Erection Manager, Francesco Dose, Enea Corrado and six artisans arrived in advance of the main groups – including Gino della Martina, who stayed on at Saiccor until his retirement in 1987 at 69 years old. He died in 1997. Gino was, throughout his career at Saiccor, the Building Manager, where he made concrete as hard as granite (nothing ever fell down) and ran his department in a typically Italian autocratic fashion. In 1973 he was also appointed Group Building Manager. He was for some time the Chairman of the Italian Club in Umkomaas. Today his son Lorenzo is a leading member of the Italian community in Durban.

The first group, comprising 58 people, including two women, a nurse and a cook, arrived by Constellation on 23 April 1954 and started work three days later. The last of the four plane loads arrived on 6 August, bringing in total 222 pulp experts to Umkomaas, in what at the time was the biggest commercial airlift in South Africa's history. A further 30 arrived by sea in early October.

Work progressed rapidly, with 250 Italians and 400 Zulus. The employment conditions for the Zulus were negotiated between Cantacuzene and the *nkosi* of the Umnini Reserve at a lengthy *ndaba*. (This sizeable reserve on the north side of the Mkomazi River had been given to *Nkosi* Luthuli, by signed grant from Queen Victoria, when the Zulus were moved from their land on the Bluff.)



Francesco Nardi



Gino della Martina



The first group of Italians en route to Durban, April 1954



The Saiccor factory under construction, 1954

Innumerable problems had to be solved. One of the earliest problems, that of finding an Italian-speaking, South African trained nurse, proved intractable, whereas a transport problem had a rough and ready solution: ‘transport from the New South Barrow hotel to the factory site has now been finalised in the form of two ten ton lorries each of which will be carrying 70 men. This will necessitate two trips and it is anticipated that half the men will start at 7:30 and the other half at 08:00’ (Hastie, 1954)

When the authorities refused to allow the boiler and turbine parts across either the rail or road bridges, a makeshift bridge was successfully constructed across the river for the purpose.

Among those who started in 1954 were Luigi de Corte, Rino Boem, Silvano Moro, Bepi Trevisan, Alison Mthuli and Armando Zerman, who became the first employees to achieve 40 years service at Saiccor in 1994. Moro was the first to achieve 45 years in 1999. Although Enoc Baldin and Edi Taverna started in 1954 and were still employed in 1994 and 1999, both had broken service.

Luigi de Corte started as a Boilermaker in the workshops making doors and windows for the factory. Once the factory was operational, he worked as a Boiler Operator under Gino Salotto for three years. He then moved back to the workshop, and in 1961 was transferred to the plant, where he worked in the woodyard, liquor plant and digesters where he became a Chargehand. He retired in 1995. Throughout his career he was super-energetic, working like a Trojan. For many years he worked with Giordano Soldat, and together they made a comical team as Giordano was twice ‘Gigi’s’ size.



Armando Zerman

Rino Boem started as a bricklayer and remained in the building department throughout his long and successful career (a large part of which was under the watchful gaze of his uncle, Gino della Martina). He was promoted to Chargehand and then to Engineering Assistant. He knew more about the underground drainage system than anyone else at Saiccor, and prevented a catastrophe many times. He retired in 1998.

Silvano Moro started as part of the erection crew, installing equipment. Once the factory started he became an Operator in the waterworks. In the middle of 1956 Fonda insisted that all Italians had to be inside the factory and Silvano moved to first screening as an Operator; then to the chlorine plant, then bleaching where he became a Chargehand, and in 1970 a Superintendent. In 1987 he was promoted to Production Manager of the magnesium plant, where he stayed until 1999 when he retired, having achieved his objective of 45 years of service. Silvano tackled everything with great enthusiasm and dedication. When offered the job of Production Manager he responded 'God bless you' and proceeded to work night and day to keep the plant in good order. From his house he could see the magnesium plant and would often pop in at odd hours because it did not look quite right. He probably also made the best coffee in Saiccor.

Bepi Trevisan started as a fitter but moved into the boilers for three years as an operator once the factory was operating. He then



From LEFT TO RIGHT: *Luigi de Corte, Rino Boem, Silvano Moro, Bepi Trevisan and Alison Mthuli, the first Saiccor employees to achieve 40 years service in 1994*

transferred to the workshop, and in 1961 to Pulp Preparation, where he was promoted to Chargehand, then Assistant Engineer and finally Divisional Engineer of digesters. He retired in 1997 and died the same year. Bepi was thoroughly competent, hardworking and dedicated. For his innovation of bypassing No 4 silo he was awarded the Sappi EAA Gold Award in 1992.

Alison Mthuli worked in the company garage and then transferred to the mechanical workshops, where he is remembered as being very quiet with a permanent smile on his face.

Armando Zerman and Carletto Scarpa were two highly talented young cabinetmakers who arrived at Saiccor in 1954 and developed their skills under master craftsman Luigi Soldat. Armando was promoted to Chargehand and finally to Engineering Assistant. He retired in 1994 and died in early 2001. Although he often behaved like a *prima donna*, his work was superlative – good examples being Sappi's executive suite at Kings Park (prior to 2000, when it was refurbished), done with Carletto Scarpa; his model of the Saiccor factory, achieved almost single-handed (with some coaxing); and the desk in the magnesium control room. Luigi Soldat sadly died young in 1970, but both his sons, Giorgio and Giordano (Sack), became Saiccor employees, the latter for the past 35 years.



The author, with Zerman's model of the Saiccor factory

The town of Umkomaas changed dramatically on 23 April 1954. The proposed £7,5 million rayon factory in Umkomaas had sparked heated debate since 8 January 1952, when the Marquis Fracassi di Torre Rossano, Minister Plenipotentiary for Italy, announced while on holiday in Durban that 700 Italians would be coming out to build it. (The Italian government was hoping for this number.)

An article from the *Natal Mercury* on 11 January 1952 gives some indication of the level of controversy surrounding the proposed influx of Italians:

ENGLISH SUBURBIA OR LITTLE ITALY?

Umkomaas Speaks Mind on Factory

The building of a £7,500,000 rayon factory at Umkomaas might change its character from a little piece of 'English Suburbia' to that of a cosmopolitan South African industrial town.

When the slightly bewildered

Umkomaas people got over the initial shock of the 600 Italians coming to the township, their opinions fell into two clearly defined channels.

People with business interests were in favour of the idea of Umkomaas 'waking up at last,' but the majority of the residents, compri-

sing mostly English people who have retired, hope that Umkomaas will 'sleep on'.

One elderly retired resident who has been in Umkomaas for the past 20 years declared: 'I am definitely not in favour of being turned into an industrial town and I am strongly opposed to foreigners.'

The new types will frighten away the thousands of regular visitors. Imagine the beach and bathing pool at weekends, with hundreds of Italian wives and children within walking distance. (J Hall, Daily News, January 1952)

There need be no fear that Umkomaas or any other equally underdeveloped spot in South Africa would not benefit tremendously by the creative and hardworking genius of the Italians. (Natal Mercury, 25 February 1952)

Eventually an Italian ‘Monti’ joined the fray:

Italians are guilty of having two big faults; of being poor and, above all, of being intelligent. For the first, we are despised and for the second we are envied. Now, if they like, they can continue, but I just want them to know that we are superior to these offences. (Natal Mercury, 31 January 1952)



A cartoon by Robin in the *Natal Mercury* of 16 January 1952 entitled 'Dopo-Domani at Umkomaas' summed up some of the feelings at the time. Three years later, in 1955, the situation was neatly summed up by the *Natal Mercury* (13 September):

250 IMPORTED ARTISANS HAVE BROUGHT NEW LIFE TO RESORT.

When quiet, sedate Umkomaas, with its elderly retired couples, international golf course and select holiday trade, heard that its population was to be increased by nearly one-third overnight with the arrival of 250

Italian artisans, the village was frankly concerned about its future.

A few residents, fearing a local industrial revolution, with possible racial overtones, sold up and left.

But today Umkomaas is finding that the influx of new blood and the coming of industry have brought new life and prosperity.

Some 70 of the Italians were accommodated in the New South Barrow Hotel, and most of the others filled up the other hotels in Umkomaas – Robin Hood, Goodrest, Fairway, Ocean Park and Golf Course – while 24 went into three self-catering houses, soon to be known as Spirit house, Devil house and King's house.

As the Italians tended to be ostracised by the people of Umkomaas, they became a close-knit family unit, socialising largely among themselves. The most popular leisure activity was naturally soccer, which they played with a passion, practising where No 2 continua now stands. Parties with song and dance were frequent and regular, while a train ride to Durban for shopping and 'bioscope' was also popular. In their new and strange environment the young Italians managed to create a lot of fun.



Mass at the Town Hall in Umkomaas, c. 1955

There was no Catholic Church in Umkomaas and the Town Hall had to be used for services, with a visiting German priest from Umzinto. Father Umberto Ceselin, a priest from Friuli, arrived in Umzinto in 1956.

About half the Italians were married, and wives started arriving from 1955. Some of the single men arranged proxy marriages to girlfriends in order to bring wives out, since the company would pay for a wife's fare, but not a girlfriend's. One of the first, in September 1955, was Renzo Scarpa, whose son Flavio and daughter Mannie Rivetti still work for Saiccor. There were 25 proxy marriages – in a few cases the couples did not even know each other – and most were successful. The first couple to get married in South Africa was Silvano Moro and Imperia Martellosi, in July 1957 at Umzinto.

The Zulus solved their accommodation and travel problems by simply building a village on the small hill across the road opposite the woodyard (where No 4 continua stands today), named Villaggio Roma by the Italians. There were also some Pondos in the village, which gave rise to occasional clashes.



The Zulu employees in the 1950s built themselves a small village, named Villaggio Roma by the Italians

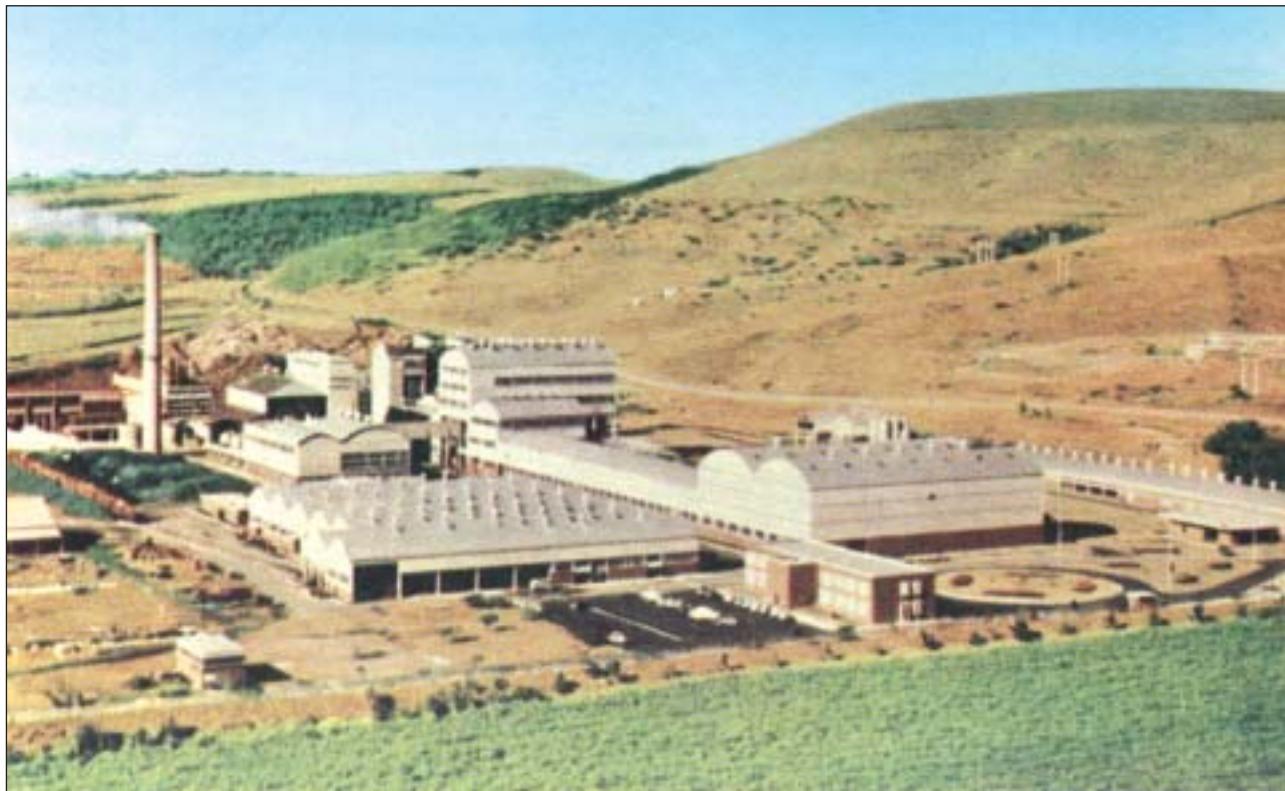
In May 1955 Dr Fabio Fonda, an experienced Chemical Engineer, arrived from SAICI. He was in charge of the start-up, and brought with him Dr Brusa, the Laboratory Manager, and his assistant Dr Gianpietri (later to become Technical Manager at Mondi Merebank). Fred Aldred, the Courtaulds' representative, arrived on 7 June with Dr Bruce and John More (a long-time Saiccor associate until his retirement in the mid-1980s) and 10 engineers, chemists and analysts.

Five 'cooks' were made towards the end of June 1955 and 17 in July. The first 440 pound bale of unbleached pulp was made on 16 July 1955 (bleached pulp started at the end of September). In August the factory was running on a continuous basis, six days a week. The



Dr Fabio Fonda

discharge of effluent into the sea at the river mouth commenced on 11 August and the foam was of some concern to the local authorities. By this time, 27 white South Africans had been employed – there were language problems.



Saiccor factory, 1956

SO₂ Recovery was in operation from the end of November and in December 1955 the first rayon pulp acceptable to SNIA was made. (Courtaulds were unhappy with the quality and would not accept the pulp.) SNIA and Courtaulds officially accepted 1 December 1955 as the date of commencement of production.

In the Saiccor process wood chips are ‘cooked’ with calcium bisulphite liquor in a digester (like a large domestic pressure cooker), at high temperature and pressure to dissolve most of the lignin in the wood. The liquor is made by burning sulphur and reacting the resultant sulphur dioxide with a limestone slurry. After cooking, the spent cooking liquor is washed out of the pulp. Knots and uncooked pieces of wood are then screened out before the pulp is bleached. After bleaching the pulp is screened again and then dried, cut into sheets and baled.



Third floor digesters

SAICI designed the plant for 110 tons per day. There were five mild steel brick-lined digesters (280 m³) operating at 6-bar, each with its own washpit. Chips were conveyed to each digester and then gravity fed into the digester through a movable hopper.

There was a Lurgi roaster to make sulphur dioxide from pyrites (imported from Northern Rhodesia, now Zambia), the flue gas went through an electrostatic precipitator before reacting with crushed limestone in a set of four packed Hagglund towers. Limestone arrived in big pieces, up to 400 mm in size, and was first broken up by hand with 14-pound hammers before going to a jaw crusher and ball mill. The woodyard consisted of a huge log pile, from which massive cranes dumped logs into a canal. From here they were dragged by hand, using metal poles with a hook at the end, to a 72-inch Murco 10-knife chipper (No 1), housed in what is now the magnesium oxide store.

Chips were fed to three chip silos. First screening had four vibratory knotters for first stage and one for second stage, followed by four Lindblad screens for first stage and one for second stage, followed by one Ahlfors screen for tailings. There was a four-stage bleach plant, chlorine, caustic soda, hypo and an acid stage (chlorine dioxide was installed in December 1963). All except the caustic stage were low consistency as there were no high density pumps available at the time. Adjustments were made to hypo flow to each one of the four hypo towers to control viscosity. Second screening consisted of Ahlfors screens, four for first stage, one second and one third stage. The screens have long gone, but the name of the plant has stuck.

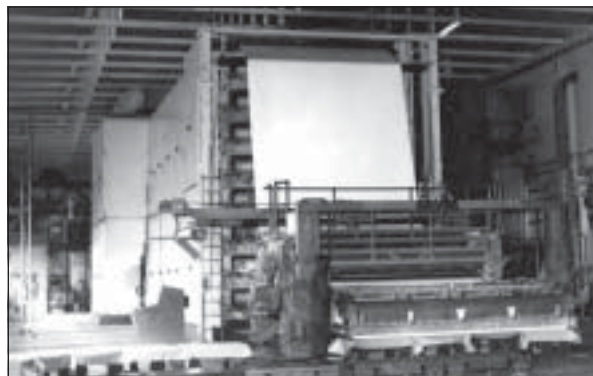
The wet end of the pulp machine (No1 continua) was made by Utita and an L-type Flakt dryer by Pignone.

Pulp bales (not units) were loaded by overhead crane into rail trucks in the pulp store (road transport and units were introduced in 1975).

There were three coal-fired boilers from Breda (No's 1-3) MCR 30 t/h and two Tosi turbines MCR 3,8 MW. Effluent was discharged via an open concrete channel to the outfall into the ocean at the river mouth. SAICI's cost estimate for the plant and equipment was



The woodyard, showing the log pile and canal



No 1 continua under construction (TOP) and (BOTTOM) in operation



Bales showing the Saiccor logo



Pulp bales being loaded onto a rail truck

£5 460 954, according to the *Contract Blue Book*, May 1954, which details each and every item with costs, down to nuts and bolts, workshop hand tools and office furniture.



Eastern view from the Chemical Plant, 1956



Southern view from the Engineering Block, 1956

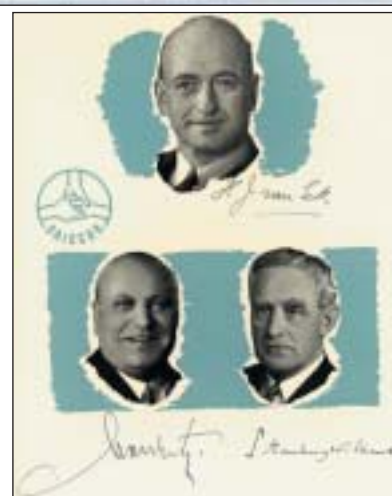
At the end of December 1955 SAICI, having achieved their objective in the Saiccor project, sold their share in the company to Courtaulds. Saiccor became two-thirds Courtaulds and one-third IDC. This remained so until 1988, when both partners sold their shares to Sappi. At the beginning of 1956, SAICI announced they would officially hand over the factory at Umkomaas to Saiccor on 28 January. For the official opening Cantacuzene ‘wanted everything to be of the best, starting with Krug champagne’. At that time there was none in the country, but he managed to order 500 bottles of Charles Heidsieck from his Polish aristocrat friend Dom Radziwill, who was

the agent. The official opening was performed by the Governor General of the Union of South Africa, Dr E G Jansen. Invited guests included the Minister of Economic Affairs (represented by the Secretary for Commerce and Industry, P de Waal Meyer), the Governor of the Reserve Bank, Dr M H de Kock, Natal's Provincial Administrator Denis Shepstone, the Chairman of Courtaulds Sir John Hanbury-Williams, the President of SNIA (represented by Alessandro Brunetti), Loring Rattray and the Saiccor Board. The celebrations started on the morning of 27 January with Zulu dancing at Mnini, followed by sheep and beef on the spit for the Zulu employees. A feast was held in the Saiccor canteen for the white workforce, where the Board and some of their wives signed the first sheet of Saiccor dissolving pulp (now housed in the Club Comunita Italiana in Umkomaas).

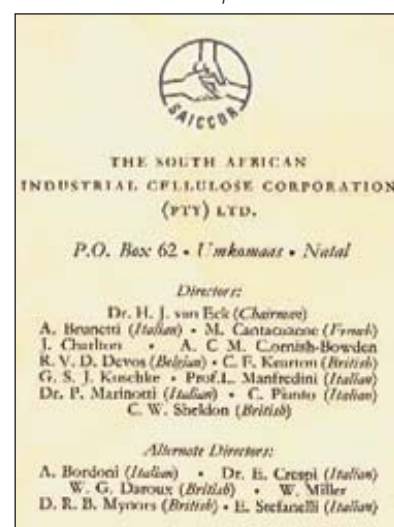
That evening Loring Rattray gave a cocktail party for the dignitaries at his home in Durban. The official ceremony on 28 January started with lunch and speeches at the New South Barrow Hotel, followed by the ribbon cutting at the factory. A message from the Minister of Economic Affairs, Dr J J van Rhijn, was read out. 'I welcome every new undertaking that promises to save or earn South Africa additional foreign exchange.'



Press photo of the official opening of Saiccor, 28 January 1956, which appeared in the Natal Mercury with the following caption: 'His Excellency the Governor-General photographed after he had officially opened the rayon pulp plant of the South African Industrial Cellulose Corporation (SAICCOR) at Umkomaas. With him are (LEFT TO RIGHT) Sir John Hanbury-Williams, chairman of Courtaulds Ltd., Mr Alessandro Brunetti, of Snia Viscosa, and Dr H. J. van Eck, chairman of the South African Industrial Development Corp. The tablet near which they are standing is in three languages, English, Afrikaans and Italian, evidence of the collaboration of three nations to the enterprise.'



(CLOCKWISE) Dr Hendrik van Eck, Sir John Hanbury-Williams and Dr Franco Marinotti, and
BELOW The Board of Directors



Extracts from the brochure produced for the official opening of the Saiccor factory on 28 January 1956.

The Governor-General, Dr EG Jansen, said, 'Saiccor had been a contribution of large magnitude to the establishment of new industries on a decentralised basis.'

'I trust that the example will be followed,' chairman of the IDC, Dr van Eck said. 'This is only a beginning. Soon there may be similar factories along the Natal South Coast.'



The Governor General of the Union of South Africa, Dr EG Jansen, was presented by Saiccor with an antique marble head dug from marshes at Torviscosa at the opening ceremony on 28 January 1956

Dr van Eck, on behalf of Saiccor, presented the Governor-General with a head carved in marble, dug from marshes at Torviscosa. The piece of sculpture, described as being 'of great antiquity and value', was given to Saiccor by Dr Marinotti for presentation to Dr Jansen.

At the opening it was made known that Saiccor had cost nearly £8,5 million, with share capital of £6 million (£2 million from each partner) and a loan of £2 million from the Commonwealth Development Finance Company. The sum of £1 million had been spent on 15 000 hectares of plantations in Zululand, and 3 000 hectares of land in the Natal midlands, £0,5 million in housing, and presumably the

THE roots of SAICCOR's great venture at Umkomaas go deep down into the past. In his famous "Micrographia" Robert Hooke, in 1667, wrote of rayon. "... I have often thought", he said, "there might be a way found out to make an artificial glutinous composition much resembling, if not as good, nay



Robert Hooke, 1635-1703

better, than that excrement, or whatever substance it be, out of which the silk-worm wire-draws his clew. If such composition were found it were certainly an easie matter to find quick ways of drawing it out into small wires for use."

His conception of artificial silk was taken no more seriously than many of his other brilliant ideas, perfectly sound though most of them have since been proved to be. Dean Swift made fun of Hooke in "Gulliver's Travels", that biting satire which was never intended for the eyes of children, where he portrayed the scientist as a member of the Grand Academy of Lagada, lamenting the world's folly in using silkworms.

In the 18th century mankind learned how to manufacture varnishes from gums and resins. A French scientist, René Réaumur, stated his opinion that an artificial textile could be produced by the same technique provided that it could be chemically treated in a way to make it resistant to heat and to the necessary solvents. Not till the awakening of the inventive genius of the 19th century did Robert Hooke's early concept of an artificial silk again command the attention of serious investigators, but when the chemists and textile technicians of that day began to grapple with the complex problems of artificial fibres, they more than made up for lost time.

Nitrocellulose, of vital importance until other processes gained wider acceptance, was invented in 1846. By 1884, the "Father of the Rayon Industry", Comte Hilaire de Chardonnet, a Frenchman, had succeeded in coagulating filaments from nitrocellulose obtained from mulberry leaves, and his invention astounded visitors to the great Paris

Exhibition of 1889. Two years later Chardonnet built near Besancon (France) the first factory to produce rayon commercially. The Chardonnet process has, however, now fallen into disuse. Another method, known as the cupro-ammorium process, was invented in 1890 by the French chemist Despeissis.

The basis of the vast rayon industry as we know it today is the brilliant research work of two British chemists, Cross and Bevan, who in 1892 patented the method now known as the "viscose process". These patents were acquired early on by Courtaulds Ltd. who can, therefore, be considered as world pioneers of the rayon industry. Robert Hooke's idea way back in 1667 was very much to the point, after all.

The rapid development of the rayon industry these thirty years brought with it the establishment and equally rapid growth of another major industry, producing chemical wood pulp—the basic raw material for the manufacture of rayon. One of the most recent units to come into operation in this field is SAICCOR's factory at Umkomaas.



Hooke's microscope

An interesting article on the history of rayon, which appeared in the brochure at the official opening of the Saiccor factory in January 1956 (author unknown)

remainder on plant, infrastructure and services. It was estimated the company would have an annual turnover of £3 million.

For the opening, Dr van Eck wrote, 'the potential requirements of a future local rayon producing industry have not been overlooked'. The issue had obviously been pursued, for on 30 May 1956 SNIA Viscosa (Milan) submitted a proposal to Saiccor for a 30 t/d viscose staple fibre plant. This was never followed up.

After the official opening all the SNIA people resigned from the Saiccor Board except for Alessandro Brunetti, who was asked to stay on in his personal capacity until 8 March 1957. The Board then comprised: H J van Eck (Chairman), A Brunetti (Italian), M Cantacuzene (French), J Charlton, A C M Cornish-Bowden, R V D Devos (Belgian), C F Kearton (British), G S J Kuschke and C W Sheldon (British).

Changes to the Board over this period were:

April 1956 – Charlton resigned (died the following year)

July 1956 – Cornish-Bowden resigned

March 1957 – Brunetti resigned.

February 1960 – Devos resigned and was replaced by D R B Mynors (British)

October 1960 – W F Hastie (British) appointed as Courtaulds Representative

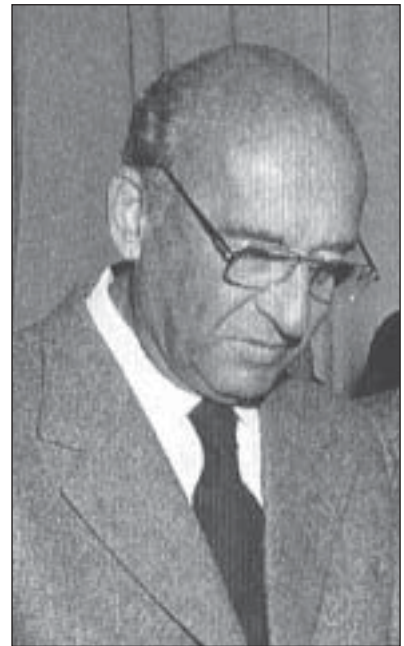
October 1964 – Sheldon resigned, replaced by O W Tainton (not representing any shareholder)

January 1966 – Cantacuzene resigned, replaced by J L Yeomans (British)

On 1 February 1956 Dr Fabio Fonda joined Saiccor as Technical Manager and Deputy Works Manager. Reporting to the Works Manager, he was responsible for the factory's production. The first operating management team was now complete.

The First Saiccor Operating Management Team

R O Fowler, Secretary of the Management Committee, is not shown.



Alessandro Brunetti



*Michel Cantacuzene –
General Manager*



*Bill Hastie – Works Manager
(responsible for overall factory
performance)*



*Fabio Fonda –
Technical Manager
(responsible for production)*



*Oakley Tainton –
Commercial Manager
(responsible for raw
materials)*



*John Carrick – Chief
Accountant and
Company Secretary*

This committee remained unchanged until Fonda resigned to return to Italy at the end of February 1959. The structure of the company is outlined on p 27 (it remained so until about 1967, after which it slowly expanded).

Two certificated engineers joined the company on 1 October 1955, Viggo Melkjorsen as a Plant Engineer and Graham Mortimer as Electrical Engineer. Mortimer managed the electrical department until his retirement in April 1973, ably assisted by Angelo Serravalle and Bruno Trevisan, who together created a huge, complex electrical system over 20 years. Mortimer became Plant Engineer in November 1962, and endeared himself to the Italians when his daughter married an Italian (who still runs a restaurant in Durban North) and by driving an Alfa Romeo! Melkjorsen was a Swede who loved parties. He joined as Assistant Plant Engineer and became Chief Engineer in November 1960, when he was elected to the management committee. He left Saiccor in 1965.

In February 1956, Tom Harman of Courtaulds took general control of engineering. From 1 December 1957, Ken Reed was appointed Development Manager (he had been seconded to Saiccor from Courtaulds).

The Mechanical Engineer was Rosicarelli, who took over from Nardi when he left in September 1955. Enea Corrado was workshop Foreman. Assuero Bramuzzo was Services Engineer and Tom Fitzgerald was Chief Draughtsman.

Dr Mortarino and Dr Bruce were Production Managers, each responsible for half of the factory. Shift Superintendents were Gino Rivetti, Marcello Malpiedi, Domenico Sabbatini and Alfonso de Faveri. Dr Brusa was Laboratory Manager.

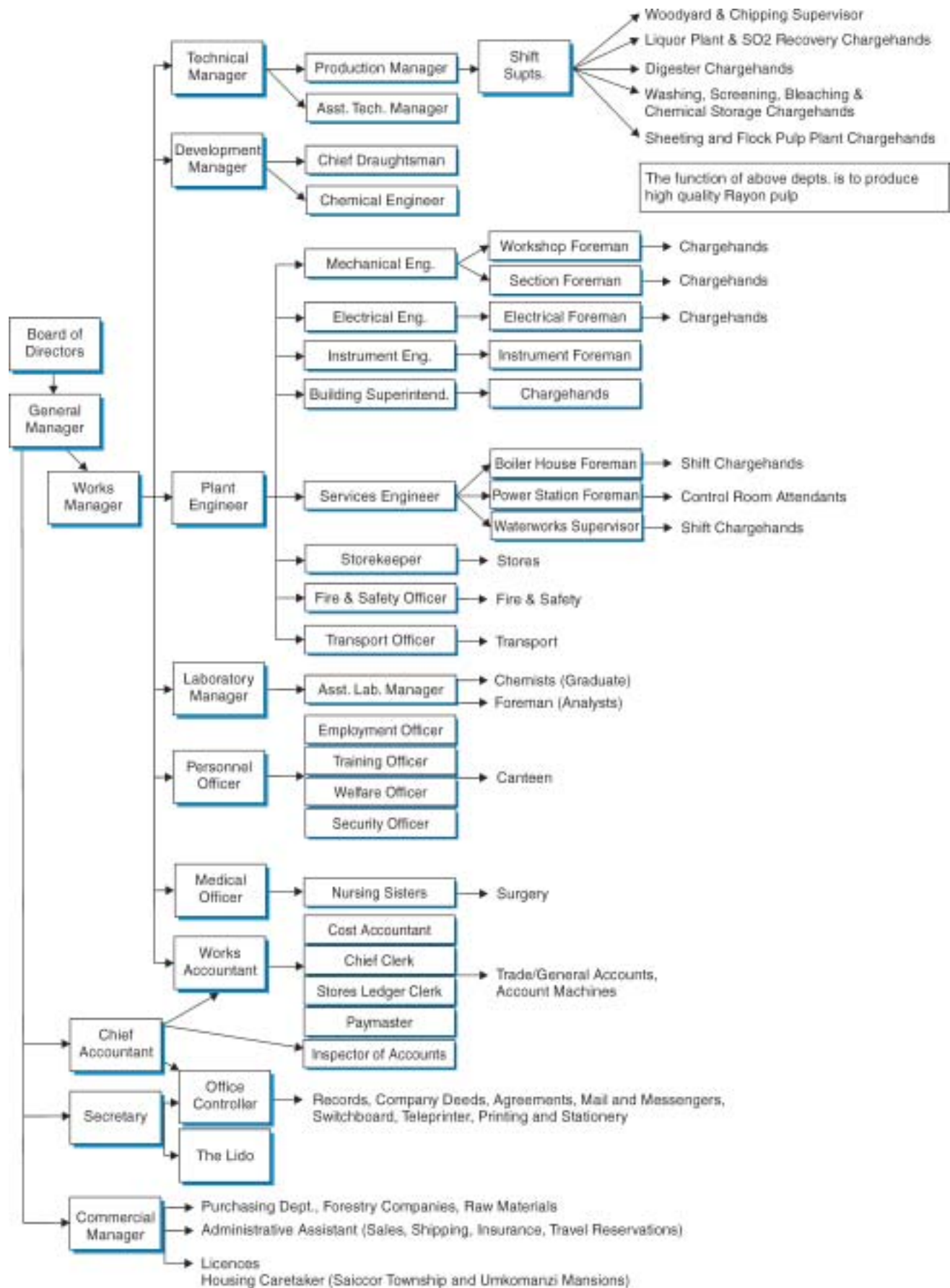
Towards the end of December 1955, the plant was producing an average of 70 t/d, and Fonda was confident the plant and equipment would reach design capacity early in the new year. He was, however,



Viggo Melkjorsen



Graham Mortimer



The management structure of Saiccor, until 1967

so concerned about the South African operators (both white and black), that he wrote a letter (on a SAICI letterhead) on 3 January 1956 on behalf of the SAICI Start-up Team Management to the Saiccor General Management concluding that, 'if something were not done about the standard of the operators, the plant could not operate.' He found the South African operators inefficient, uncooperative, ill disciplined and unwilling to learn, compounded by a high turnover of whites.

The Italians had come out in 1954 on a two-year contract to build and start up Saiccor and were due to return to Italy in 1956. Because of Fonda's concerns, Saiccor management offered all the Italians the opportunity of signing a further three-year contract with a 'signing on' bonus of £300 (about 10 months' salary). Although their wages were relatively low by today's standards (30 cents an hour), their standard of living in Umkomaas was better than it had been in Italy. About half the Italians signed the new three-year contract, while the other half started returning to Italy from 20 April 1956. Many of the artisans who stayed on were employed as operators.

Production increased steadily from 78 t/d in January 1956 to 163 t/d in April 1959, achieving the design capacity of 110 t/d from July 1956 onwards. The yearly figures were:

1956: 105 t/d 1957: 130 t/d 1958: 148 t/d

Although numerous minor alterations were made to the plant, like increasing pipe and motor sizes, the increase in production was achieved largely by learning how to get the maximum output out of each and every piece of equipment.

For example, the following alterations were made to the drying machine over the period.

- A new 200 mm steam line
- Removing rashig rings from the air water heat exchanger
- Increasing the air flow through the dryer
- Improved felts and wires
- Improved vacuum at the suction presses

With these relatively minor changes, the output of the machine increased from its design of 110 t/d in early 1956 to average around 150 t/d in the second half of 1958. The first time 181 t (200 short tons) was achieved was on 22 August 1958.

Naturally the output of all other plants had to match the drying machine and all increased accordingly.

A fatality unfortunately occurred on 10 February 1956. Foreman Instrument Mechanic Ego del Bianco was killed by the digester lift. A block of flats under construction in Saiccor Village at the time was named Del Bianco Court in honour of Ego, as was a street in the village.

The first plant to prove troublesome was the digesters.

In May 1956 the carbon brick lining of No 5 digester collapsed and had to be rebuilt. The other digesters soon followed. It became apparent that rebuilding digester linings was a fulltime occupation. Solutions to the collapse of the brick linings were being sought when it became necessary to order No 6 digester. It was decided to buy an improved type of digester from the German company Esseners, consisting of a mild steel shell clad with stainless steel. No 6 digester was commissioned in January 1960 and operated at 6,6 bar (10 per cent higher than No's 1-5).

Between December 1960 and June 1962 the brick linings on No's 1-5 digesters were replaced with loose stainless steel linings – a vacuum between the stainless steel and the mild steel shell had to be maintained. The stainless steel linings were a great improvement on the bricks, but also collapsed from time to time. No 7 digester, a repeat of No 6, was commissioned in May 1961. When the order was ready to be placed for No 8 digester, Avesta (Sweden) were making cold stretched digesters, but Lloyds of London would not approve the design of these vessels. An order was consequently placed on Canzler of Germany for another clad stainless steel one. No 8 digester was commissioned in January 1962.

From No.9 digester onwards all digesters were Avesta cold-stretched stainless steel. Ingemar Johanssen of Avesta, the patent holder of the cold stretching process, was a regular visitor during the construction of these digesters. No 9 was commissioned in 1963, No 10 in 1964, No 11 in 1967, No 12 in March 1969, No 13 in December 1969, and No 14 in 1973. No's 15-17 were bought secondhand (11 years old) from Vallvik in Sweden in 1975. These digesters were cut in half, across the centre, and transported to South Africa. A piece was welded in to make the digester 1,2 m longer (the same volume as the others, 285 m³). No's 18-20 digesters were commissioned with the magnesium plant in May 1985. No's 21-23 were commissioned with the Mkomazi plant in January 1995.

A programme to replace No's 1-8 digesters was started in 1980; they were commissioned as follows:

No 1 – 1983	No 2 - 1982	No 3 - 1981
No 4 – 1982	No 5 – 1980	No 6 – 1990
No 7 – 1987	No 8 - 1989	

No's 9 and 10 operated at 6 bar, while from No 11 on the operating pressure was increased to 10 bar, the higher pressure giving a better quality pulp, particularly



Construction of digesters 18, 19 and 20 in 1984

with wattle. From 1970 wattle was only cooked in 10 bar digesters, after No's 9 and 10 were re-stretched with strips added to convert them from 6 to 10 bar. Since 1990 all digesters have worked at 10 bar, which has made the operation of digesters far easier and has produced a more consistent pulp.

The digester plant has undergone a greater transformation than any other plant in Saiccor's 50-year history.

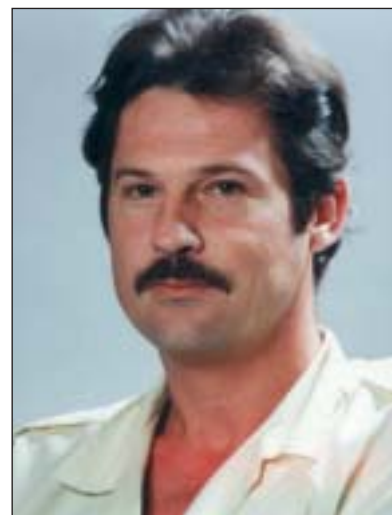
From an engineering perspective two untiring men, Piero Mian and Henry Zan, drove the transformation, together with a team that included Bepi Trevisan, Sergio Govetto, Silvano Rigotti, Luigi de Corte and Giordano Soldat. Piero Mian worked in the digesters from the start of the factory, then as a section Foreman from 1960, Assistant Engineer from 1970 and finally as Divisional Engineer from 1979 until he reached retirement age in 1984. At that stage he moved to the magnesium plant, where he stayed until he actually retired in 1989, just before he turned 70, at which time he was still running up and down inside the evaporator like a spring chicken. Today at 81 he remains fit and strong. Piero was another autocratic Italian manager, overseeing everything personally, and as a consequence working day and night. He was tough on his people but would protect them with his life; it would have been easier to take off his right arm than to take away one of his people. He was diligent to the finest detail and would persevere with a problem until it was solved. His work on solving the problems on circulation pumps, their packings and corrosion on the digester vessels, was outstanding.

Henry Zan (son of Ennio) took over as Divisional Engineer in digesters when Piero moved out in 1984. Henry was Saiccor's first Technikon graduate mechanical engineer and has, in pursuing a similar strategy, carried on the transformation of digesters started by Piero. For his work in solving the problems of digester valves and gaskets in particular, Henry was awarded a Sappi EAA Bronze award in March 2000. As an Assistant Engineering Manager, he is still in charge of digesters.

Two other people, although not Saiccor employees, have made a major contribution to the digesters, namely Allan Lofstrand and Franco Scarpa. Between the two of them they have built all but two (No's 9 and 11) of Saiccor's existing digesters. Allan, a Swede, worked for Avesta and was in India in 1964 when he was asked to go to Saiccor to build No10 digester. Once the digester was commissioned he went back to Sweden, returning on 5 January 1969 to build No 12. He married a local girl, Maria, and has stayed in South Africa ever since, being involved with every digester after No 11. He joined LHL Engineering in 1969 for a year, then Durban Engineering. In 1971 he joined Axel Johnson (who represented Avesta) and in 1978 became Managing Director of ND Engineering, where he is today (although the company name has changed a few times and is currently Metso).



Piero Mian



Henry Zan



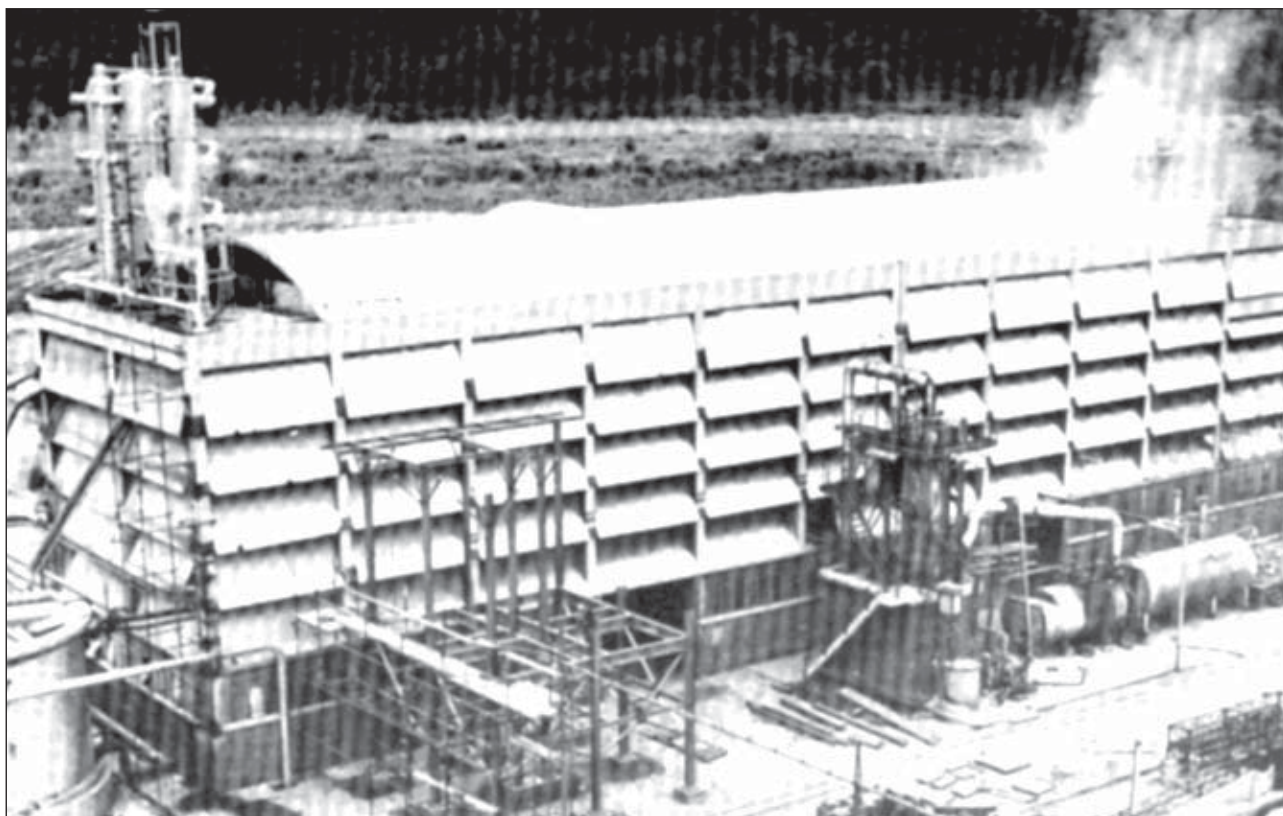
Allan Lofstrand and Franco Scarpa

Digesters 9-17 were ordered from Avesta, but from 1980 onwards all digesters were from ND Engineering (although the plate came from Avesta, except for the new Nos 3 and 5 that came from Southern Cross).

Franco Scarpa came to South Africa in 1961 for the adventure, although he had two brothers working at Saiccor. He joined Durban Engineering but was persuaded by his brother Renzo to join Saiccor in 1963. He worked in the workshop, then the liquor plant, but left in 1965. He worked on his own as a plumber for a few years, then joined Breckenridge, and from there went to Milano Motors before joining Coilco Engineering in 1974. In 1978 he joined ND Engineering and is still there. He was at the construction 'coal face' of every digester from No 18, including the rebuild of No's 1-8. There probably is not anyone in the world who knows more about building stainless steel digesters than Franco.

Willem Deyzel of Lloyds Register was also an integral part of the digester building team.

Another plant that was extremely troublesome from 1956 onwards was the Lurgi pyrites 'roaster' and the precipitator that followed it. Bruno Trevisan, the electrical engineer, was horrified in 1975 when he heard the gas producer had electrostatic precipitators, because he experienced so much trouble with the one following the pyrites roaster. Early in 1958 it was decided to buy a sulphur burner, No 1



Liquor preparation, showing No 1 Simon Carves burner, 1959

Simon Carves, which was started in February 1959. In October 1959 the Lurgi 'roaster' was converted to burn sulphur, and no further pyrites came to Saiccor.

The blockage constant (KW) of the pulp produced in the first three months of Saiccor's operation averaged 24-28, which exceeded Courtaulds' limit of 20. The ash, calcium and silica also exceeded the limit. Owing to the poor quality, Courtaulds would not accept the pulp and it all went to SAICI. In March 1956, a 10 t trial lot with a KW of 22 went to Courtaulds. In July acid water was added to the slurry going to the continua which improved the ash levels and some pulp started going to Courtaulds, but when the pulp was used another problem emerged. Some of the sheets 'floated' in the caustic soda in the Courtaulds' sheet steeping process. This problem was only completely solved when a calendar press (from Farrel) was installed 70 per cent through the pulp dryer in 1966. By December 1956, a large proportion of Saiccor's pulp was going to Courtaulds.

For almost the first four years of operation, there was a constant struggle with KW values and not much headway was made. In June 1956 John More from Courtaulds arrived to investigate the problem. In early 1957, it was recognised that high silica gave high KW's and a liquor filter was installed in the liquor making plant (to remove silica from limestone). Silicas dropped to 70-90, but KW values remained just over 20. In February wattle was tried, but the KW value was 85. In March detergent was tried in the caustic soda bleaching stage, initially to clear the cloudy viscose that was made from Saiccor pulp. Not only did the viscose clear, but the KW values dropped below the Courtaulds' limit. By June (18 months after start-up), Bill Hastie made the comment 'The attainment of the quality standards laid down originally may be said to be an important milestone passed.' (Hastie, 1957) This was attributed to 0,1 per cent detergent, the liquor filter and activated silica being used for incoming water purification. KW values were 17, ash 0,06 – 0,07 per cent, silica 72-84 ppm, and calcium 354 ppm.

From August 1957 silica and KW's started to increase, and over the next two years monthly average silicas varied from 91-208 and KW's from 18-24. Pulp quality was marginal until September 1959, when a battery of centricleaners were added to second screening. Silicas dropped to around 40 and KW's to 15. By this time flock pulp was being made but it did not go through the centricleaning plant and had silica of 219 ppm and a KW of 34 (varying from 18-76). However, the major problem of blockage constant had been solved.

The Board approved the first extension scheme in February 1958 to construct a pilot plant to test a new process proposed by Courtaulds to flash dry pulp (flock pulp). The conceptual design for the pilot plant was done by Courtaulds (Fred Aldred and Bruce Townsend) while the detailed design work was done at Saiccor with help from

two draughtsman from Courtaulds. Giorgio Natali and his project construction team put the plant together rapidly and the first bales were made on 11 August 1958. By the end of September the plant was producing 12 t/d and was eventually pushed to 35 t/d. John Grew, who had been loaned to Saiccor by Courtaulds, carried out much of the original work on the pilot plant. He was ably assisted by Marcello Malpiedi, who later supervised the running of the large second line (100 t/d). Both Grew and Malpiedi took up positions at Usutu.

Malpiedi, a graduate (Perito Chimico Industriale), was engaged by SNIA (on behalf of Saiccor) in September 1954, and transferred to Saiccor as a Shift Superintendent in June 1955. In December 1958 he was promoted to Assistant Development Manager, where he was fully engaged on developing the flock plant. Marcello moved to Usutu in 1961, and then went to Courtaulds in Coventry in 1968. In 1978 he went to Italy in an attempt to sell Saiccor pulp, the first time sales were attempted outside of Courtaulds, but it turned out in the end that no pulp was available for external sales. In 1987, Marcello moved to Hong Kong as a foundation member of SPT (Specialty Pulp Trading) to sell Saiccor and Usutu pulp. He retired in 1993 but joined the Saiccor Board in September 1993.

Based on the success of the pilot plant, Saiccor started extension scheme No 2, a full-scale flock plant for 100 t/d using a 20A atritor, which started on 15 March 1960.

Also based on the success of the pilot plant, Courtaulds decided to use the system in the new pulp mill they were planning to build in Swaziland (Usutu). They also took out a patent for the process, aiming to sell relatively inexpensive drying plants to small pulp mills close to forests. The sales campaign was unsuccessful, even when Courtaulds tried to market the process with Sunds in the early 1980s. Only Saiccor and Usutu ever used the process. Saiccor eventually achieved over 500 t/d flock pulp in 1979, but made its last flock bale on 17 January 1995. Because of the patent, the flock plant was for many years ‘top secret’. So much so, that when Ted Beesley joined Saiccor as a chemical engineer in the Development department in 1960 he was not allowed to go into the flock plant.

The heart of the process, and the reason for the patent, was the atritor in which the pulp was ‘fluffed’ and exposed to hot air (450–500 °C). An atritor was a coal crusher, made by Alfred Herbert of Coventry, which had a rotating disc with cast iron pegs and hammers attached to it. It was not entirely suitable for the pulping process because if anything hard went inside, it would chip a peg, the chip from the peg would chip another, and so on, so that within seconds the innards would be smashed into small pieces. The first atritor smash at Saiccor occurred on 24 November 1958. Many others followed throughout the history of the flock plant.



Marcello Malpiedi

The capital cost of the flock plant was low, as was the energy cost, but it was dusty and an everlasting source of fires. Added to this it was a hydraulic nightmare, mechanically pushed to the point of breakdown and the quality was always inferior to sheet pulp. Hence over the years many people put in a great deal of effort to keep the troublesome flock plant going. These included: from engineering, Paddy Brannigan, Frank Rhodes, Bruno Scorovic, Giorgio Natali, Ido Zanello, Achille Fontana, Enoc Baldin and Basilio Segatto; from production, Marcello Malpiedi, Norman Boulter, Gino Rivetti, Bepi Martelossi, Ennio Zan, John Davey and Eridanio di Marco; from electrical, Graham Mortimer, Angelo Serravalle, Bruno Trevisan, Jimmy McFeat, Piero Miniutti and Adelmo Chiccaro; from instruments, Vic East, Barry Tokelove and Sergio Gori; from technical, Attie du Plooy, Bryan Thomas and John Thubron; from the development department Ken Reed, Ted Beesley, Ciano Ioppo and Alfredo Battiston. Four operating chargehands put almost a lifetime's work into the flock. They were 'Louis' Szabo and Bill Ravenscroft (who together for the first six months worked 12 hour shifts, seven days a week), Warwick Harper and Roy Barry, while Rudi Riecker, Garth Railton, Elijah Mkhize, Lawrence Zondi and Osborne Phungula were there for many years.

Other capital work completed by early 1959 included an additional 200 mm steam main to No1 continua (January 1958); two clariflocculators for the waterworks (February 1958); No 2 chipper (same as No 1) and chip screens (July 1958); acid stage in bleaching converted to fifth hypo stage and No 5 and 6 filters put in parallel (December 1958).

The number of people employed in August 1956 (after some of the Italians had returned to Italy), were some 50 staff and 906 hourly



Some of those who were involved with the flock plant and were at its demise in 1995: R Barry, L Szabo, E Baldin, S Stone and E di Marco

paid labour (243 white, 663 black) or 39 t/a per man. By April 1959 this had increased to 50 staff and 958 hourly paid labour (258 white and 700 black) or 61 t/a per man (in the year 2000 this was approximately 450 t/a per man).

Dr Fabio Fonda resigned at the end of February 1959 for personal reasons, and returned with his South African wife, Elizabeth, to SAICI, where he worked until his retirement in 1976, including a five-year spell in Brazil building and commissioning a nylon factory. After his retirement he worked as a consultant for the United Nations Industrial Development Corporation. Sadly, he died on 5 July 1994 in an accident. Dr Fonda regarded Saiccor as his 'baby', with some justification, returning for his last visit while on holiday in 1962.

Dr Ian (John) Mackenzie of Courtaulds took over as Technical Manager when Fonda left in 1959, but Ken Reed was elected to the management committee. Mackenzie was only elected in February 1969. Norman Boulter, seconded from Courtaulds, became Assistant Technical Manager. Dr Renzo Mortarino was still Production Manager and Shift Superintendents (equivalent to Shift Managers) were Gino Rivetti, Alfonso de Faveri, Domenico Sabbatini and IA Schoultz.

On the engineering side Tom Harman was still the Chief, or Plant Engineer, Viggo Melkjorsen was Assistant Plant Engineer, Paddy Brannigan (an Irish South African) was Mechanical Engineer, Graham Mortimer Electrical Engineer, Assuero Bramuzzo Services Engineer, and Maurice Hilcove Waterworks Superintendent.

On Sunday 17 May 1959 the Mkomazi river burst its banks, flooding the Saiccor factory. The first sign of a problem occurred at around 5 pm, when Maurice Hilcove raised the alarm that he was experiencing difficulties running the waterworks because of dirty river water. At that time the river level at the water intake was 1,2 m which was no cause for concern. By 6.30 pm the level had risen to 3,4 m, which was



The Mkomazi River burst its banks in 1959 and the Saiccor factory was flooded

still not unusual, but by 7.00 pm it was 9,1 m. This was a crisis. By 7.30 it was 11,3 m and disaster had struck.

The factory was running at full capacity at the time. Shift Superintendent Domenico Sabbatini was aware that the river level was rising, but as no alarm had been indicated, he had not taken any action. The sheeting machine Chargehand took the first shutdown action when water started to run through the building.

Renzo Scarpa, the Chargehand in the power station, tripped the generators at 7.47 pm. A short while later Eskom failed after flashing, leaving the factory dead except for some emergency lights, and out of communication as the telephone had been out of action since the previous evening when the line had been blown down in a storm. The factory was submerged in about 2 m of water, which was flowing swiftly across the entrance and between the buildings.

Mortimer was the first to go to the factory on the normal road, with Brannigan a little behind. Mortimer drove into the river at Cannonby siding, Brannigan stopped further up the hill and went to rescue Mortimer. They were both swept into the cane field and had to swim for their lives, and both their cars were submerged.

Bill Hastie arrived at the factory at 8.00 pm, using the original South Coast road. Hans Ainhirn, the manager of the South Barrow hotel, Mackenzie and a few employees, were already there. Ainhirn went back for a rope, while Mackenzie went to fetch Brannigan and



Mopping up operations after the flood, 1959

Mortimer. Unbeknown to the others at the time, Ferruccio Monte and Aldo Rossetto swam into the factory to inform Sabbatini that help was on the way,

Ainhirn and some employees returned with the rope, went into the water, and guided to safety a number of people stranded on the canteen roof, as well as the chlorine plant operator who had also become stranded. For this, Hans Ainhirn, Eridanio di Marco, Silvano del Vecchio, Renzo Cescutti, Danilo Stroppolo, Col. Francis Hollington-Sawyer and Julius Mehlomane Mblambo were given National Awards for Bravery (only three such awards had ever been made before).

The river flow dropped fairly quickly, and by midnight all personnel had come out of the factory. Bill Hastie noted ‘that, in addition to factory personnel, we were assisted by local members of the South African Police, by Mr Bozzone and his sons, who provided help in refreshments and transport, and by Mr Breckenridge, the contractor working on the South Barrow hotel.’ (Flood Report, 1959)

On Monday morning the factory was submerged in a metre of mud and debris (including cars). All available men and shovels set to removing mud from plant and offices. Earth moving equipment was brought from Durban on the original South Coast road as the new bridges across the Lovu and Mkomazi rivers were down. All motors and most instruments were taken to Durban for overhaul. All bearings were changed with bearings flown in from all over the country, as well as from Europe.

All electric terminal boxes and cable ends were examined, cleaned, dried out and repaired as necessary. A total of 308 motors were removed and overhauled, 300 starters and associated equipment were dismantled, cleaned, dried out and tested, 126 instruments overhauled, 665 machines were dismantled and 1 393 bearings and 213 belts were changed. About 80 per cent of this work was done in just 14 days, from the time equipment could be worked on until the factory restarted on 6 June.

Paddy Brannigan commented ‘Since the start-up, remarkably little trouble has been experienced in view of the fact that all trades, including pipe fitters and boilermakers, were used on overhauling machines. Altogether only 34 hours production time has been lost due to mechanical failure and this reflects great credit on the



Flood damage, 1959



Flood damage, 1959

work done by artisans over this difficult period.’ (Flood Report, 1959) A tremendous achievement. There was also great support from outside organisations, particularly Vic East (Devers) for instruments, Jake Crompton (BTH) for electrics, and Mark Bernstein (CBI) for buildings.

The flood cost the insurance company half a million pounds, including the cost of the company bus, which was swept out to sea. Mortimer’s car was lost, as was Strath Redding’s when he drove into the river and had to swim for his life, an exercise he repeated in 1987! Hastie concluded ‘The experience has shaken us out of routine and there has been a display of resourcefulness and improvisation by various members of the staff which, in many cases, has demonstrated a capacity and ability that was not obvious previously. There can be no doubt that the SAICCOR organisation has benefited very considerably from the flood experience.’

The river flow reached a peak of 5 500 cumecs (200 000 cusecs) during the flood. As a result the berm at the West Side of the factory was raised 5 ft to 10 ft. This certainly prevented an even greater disaster in 1987, when the river came to within half a metre of the top of the extended berm when the flow reached 7 000 cumecs (250 000 cusecs).

As a souvenir of the flood, Cantacuzene had silver ashtrays made by the South African mint for all senior staff, engraved ‘17th May – 6th June’ in his handwriting.

The seven people who received awards for bravery through the Natal Chamber of Industries deserve special mention.

Hans Ainhirn was born in Marburg, Austria in 1917. At age 14 he started work in a hotel school and in 1938 became a paratrooper in the German army, seeing 18 months’ service in Czechoslovakia, Poland, France and Russia. After the war he returned to the hotel business in Bad-Gastein, Salsburg. In 1956 a guest at his hotel

persuaded him to go to South West Africa, where he stayed for a year. While on holiday in South Africa before returning to Austria, Cantacuzene contacted him through a Swiss acquaintance and offered him a job at The Lido.

Julius Mehlomane Mblambo was born in Natal in 1911. A quiet, conscientious man, he joined Saiccor as a driver – a very good one – in 1954, aged 43. He continued to drive until his retirement on 31 August 1971. He died in 1972.

Silvano del Vecchio was born in the province of Udine in Italy in 1921 and started work at SAICI. In 1941 he was one of 77 men who formed the original ‘frogmen’ unit in the Italian Navy – a technique invented and developed by the Italians. After the war he returned to SAICI, from where he was sent to the new pulp mill in Mexico, returning 13 months later. Dr Fonda persuaded him to come to Saiccor in 1958, where he worked in the flock plant. He transferred to the laboratory, where for many years he did lab cooks and bleaching work with John Thubron, who called him ‘Pops’, a name which stuck. He retired at the end of 1986. Silvano kept himself very fit by swimming kilometers every day.

Eridanio di Marco was born in San Giorgio di Nogaro in 1935. He served two years in the Italian Navy from 1953 and then worked for a building contractor in Udine until, after a three-month course as a laboratory analyst at SAICI, he left for Umkomaas in June 1956. He worked in the laboratory until 1972, when he became a Shift Superintendent, then Production manager of the flock plant in 1993. He retired in 1999. As a younger man he played soccer for the Saiccor Football Club’s senior team, and in Italy he was a member of the Navy’s athletics team.

Renzo Cescutti was born in Aiello del Friuli in 1935 and started work in a bakery at the age of 15. Renzo’s father Mario, who came to Saiccor in August 1954 as an Operator in digesters, used his influence to get Renzo a job at Saiccor. Renzo arrived in September 1955. He worked as an Operator in bleaching, then as a Chargehand and finally as a Shift Superintendent. He retired in March 1996, unable to take the strain of the slow running of the factory. In Italy Renzo played soccer, but changed to basketball and swimming when he came to South Africa. He now cycles quite seriously.

Danilo Stroppolo was born in Torviscosa in 1938 and started work at a metal workshop in a nearby village. He arrived in Umkomaas in March 1956 to start a new life in a new country as an Operator in SO₂ Recovery. He later moved to the workshop, where he stayed until he returned to Italy to work for the Torviscosa municipality in the early 1970s. He was a member of the SAICI swimming team and won many breaststroke and freestyle events.

Col. Francis Hollington-Sawyer was born in London in 1911 and worked in Burma for three years before joining the British army in



Silvano del Vecchio



Eridanio di Marco



Renzo Cescutti



Danilo Stroppolo

1936, where he rose to the rank of Colonel. He commanded troops behind the Japanese lines in Burma in 1942-43. He was wounded and left the army with an honorable discharge on medical grounds in 1944. He then did odd government jobs in North Africa before buying a farm in Umkomaas. He joined Saiccor in April 1959 as an Operator in the woodyard, a month before the flood.

It became clear in 1955 that permanent accommodation would have to be built for Saiccor employees. A block of flats, Umkomanzi Mansions, was built in 1955, but a village was really required. The favoured site for a village was the present Widenham Caravan Park, extending across the golf course to Umkomaas, so that the village would have been part of Umkomaas. However, both the Town Board and Golf Club would have none of it. So cane land was bought from Illovo, opposite the south-western extreme of the golf course.

The construction of houses started immediately. Supposedly under advice from Pianto, the houses were to have neither garages nor servants' quarters (his logic was that without transport or domestic help, there would not be much time for wives to gossip!) The village was completed in 1957. Great care was taken to preserve the four giant-leafed figs (*Ficus lutea*) at the entrance to the village. When people moved in, there was still much evidence of cane in the grounds of houses and on the verges of the dusty roads. The village became Capo Cotta to the Italians.

Village life soon developed, with shops and a school (in the large house on the corner of Centre Street and Aquileia Avenue) where nuns from Umzinto taught the Italian children to speak English to enable them to attend the local schools.

The Saiccor Sports Club was formed and was well supported, particularly soccer, but also basketball, tennis, hockey, golf and cricket (not favoured by the Italians). The soccer side did very well under Captain Ferruccio Monte, and was the first 'country' side in 58 years to take the Dewar Shield away from a Durban Club in 1961. Nevio Turco was selected to play basketball for Natal. Gastone della Martina (Gino's son) was the tennis star, followed by Silvano Moro, and leading cricketers were Ted Turner and Mike Timm. Golf did not produce any stars, that had to wait for the children – Armando and



The first Saiccor village houses were completed in 1957, on cane land bought from Illovo



The Saiccor soccer team, 1961, the first country side in 58 years to take the Dewar Shield away from a Durban club. From left to right, standing: C Ghirardo (Masseur), G Dri, D Canciani, J Volcz, F Monte (Captain), G Indri (Chairman), G Panizzolo, G Indri, A Rosig, P Meneghel, F Titton, F Meneghel; squatting: E Scrazzolo, L Soardo, O Tubaro, A Susanna, A Allegro, I Titton, E Scrazzolo, B Murador

Miranda Zerman's sons Raimondo and Manuel (who represented Italy) and Dave and Trish Clark's sons Raymond and Timothy. All four represented Natal on many occasions before pursuing their careers. Manuel ('Mannie') and Timothy both had the distinction of playing in the US Masters before turning professional.

The community was also very active culturally. Naturally a choir was first formed, with Bepi Martelossi as the choirmaster, and included Piero del Ponte, who had trained as an opera singer. The choir had a fine reputation and performed in Durban and Pietermaritzburg and other centres.



The Saiccor choir enjoyed a fine reputation, with Bepi Martelossi as choirmaster



The dance orchestra formed and conducted by Ado Magrin

Ado Magrin formed and conducted a dance orchestra.

There was theatre with the Umkomaas Players; among the performers were Nan Mitchell, Billie Watts and Olga Sfaelos. The Fogolar Furlan committee of the Sports Club, a cultural group, organised some lavish social events like the Carnevale di Venezia at the Lido and folk dances at Christmas parties (outstanding decorations were often designed and executed by Ciano Ioppo).

The Zulus formed exceptionally good Ngoma dancing teams that became well known throughout the Province. The dancing was very popular and there were numerous teams within the factory. The woodyard team became South African champions



Folk dancing organised by the Fogolar Furlan cultural committee of the Sports Club, 1960. LEFT TO RIGHT FRONT: Clara del Ponte, Franco Mason SECOND ROW: Liviana Taverna, Giuseppe Panizzolo. BACKGROUND: Renata Pittich, Roberto Bozzone, Renée Bozzone and Ennis Turco



A Saiccor Zulu dancing team, c. 1960



Consecration of the Catholic Church in Umkomaas, 15 August 1959 by Archbishop Damiano. Those present included Fr Ceselin, the Italian Consul, Michel Cantacuzene and Bill Hastie

at a competition in Port Shepstone in 1959. A combined Saiccor team managed by Moses Magubane was a regular feature of the Durban Tattoo. In 1958 Saiccor bought land from Illovo and supplied materials for the Italians to build a Catholic Church. The church was completed in 1959 and Father Ceselin moved in from Umzinto for the consecration of the church on 15 August 1959. Father Ceselin has been at the church ever since and has played a central part in the community. Not only has he officiated at mass, weddings, christenings and funerals, but he has attended all social functions as a member of the community, being rewarded for his long and devoted service by the Vatican promoting him to Monsignor.

Once the church was functioning, the school in Saiccor Village closed down and moved to the church hall. The building vacated by the school became the Clubhouse. By this time, however, there had been an argument at the club. The Italians involved in the disagreement were concerned that, as Saiccor management were on the club committees, arguments at the club would reflect poorly in their work situation. So they decided to build a club of their own.

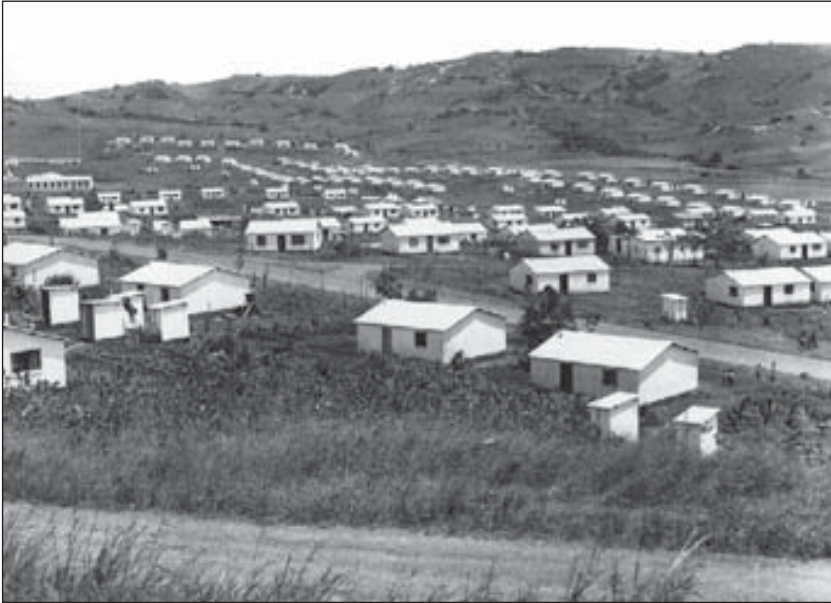
The Club Comunita Italiana was in use from 1963 and was, with few exceptions, for Italians only. It certainly took business away from the Saiccor Sports club, which slowly lost its appeal and became virtually defunct in the early 1970s. The Italian club is still in existence, although struggling, as the second generation Italians are more South African than Italian, and the number of first generation Italians is diminishing.

Possibly unique in South Africa at the time, the banking hours outside the banks in Umkomaas were also written in Italian. In every shop it was essential to have someone who could speak Italian.

Umkomaas had certainly become a 'little Italy'.



The Club Comunita Italiana logo



In mid-1960 building commenced of the first 200 four-bedroomed houses in Magabeni to house Saiccor employees

Saiccor started building the first 200 four-bedroomed houses in Magabeni in mid-1960. By January 1961 the first 50 houses were occupied.

Gino della Martina had a team building houses in Magabeni (and now and again in Saiccor Village) almost until his retirement in 1987. By this time it became clear that there were major problems with company housing. Although a nominal rent was levied by the company for the houses to enable the occupants to save for a home of their own, this was seldom done, and when individuals retired and had to leave their houses, they mostly had no home to go to. From that time (1987) Saiccor built no more houses and started selling all those it did own.

Despite the flood, production in 1959 increased by 11 per cent from 1958 to 169 t/d, while profits increased by 7,5 per cent to R2,1 million. Profits during the Courtaulds/IDC era need to be viewed with some circumspection, as the selling price of the pulp was in fact a transfer price that was significantly lower than the market price. This enabled the Courtaulds' viscose and film plants to receive a low cost raw material, which in the long term probably allowed them to become less competitive than they ought to have been, but in the short term they were pleased. IDC's objectives were to create industry (and as a consequence employment) hence they were not concerned that Saiccor's profits were lower than they could have been, providing production kept on increasing, which it did, thereby increasing the number of people employed (mainly in the forests, where by 1988 some 10 000 people were employed).

Thus both partners were very happy with what was happening at Saiccor. Production and profits increased steadily through the years

1960-1965, largely through capital investment in new plant and equipment. By the middle of 1963 Saiccor had paid for itself, despite the ‘managed’ profits – a simple payback of eight years. By 1964, the dividend of R2,4 million amounted to 20 per cent of the issued ordinary share capital.

Year	Production t/d	Profit (R'million)	Dividend (R'million)
1959	169	2,1	1,2
1960	212	2,8	1,7
1961	258	3,4	2,0
1962	300	3,2	2,0
1963	347	3,2	2,0
1964	382	4,2	2,4
1965	396	3,6	2,4

The members of the Management Committee in 1964 were:

Managing Director	Michel Cantacuzene
Works & Development. Mng.	Ken Reed
Commercial Mng.	Oakley Tainton
Secretary/Chief Accountant	John Carrick
Technical Mng.	Norman Boulter
Chief Engineer	Viggo Melkjorsen
Personnel Mng.	Jock Mitchell
Laboratory & Research Mng.	Pat Roche

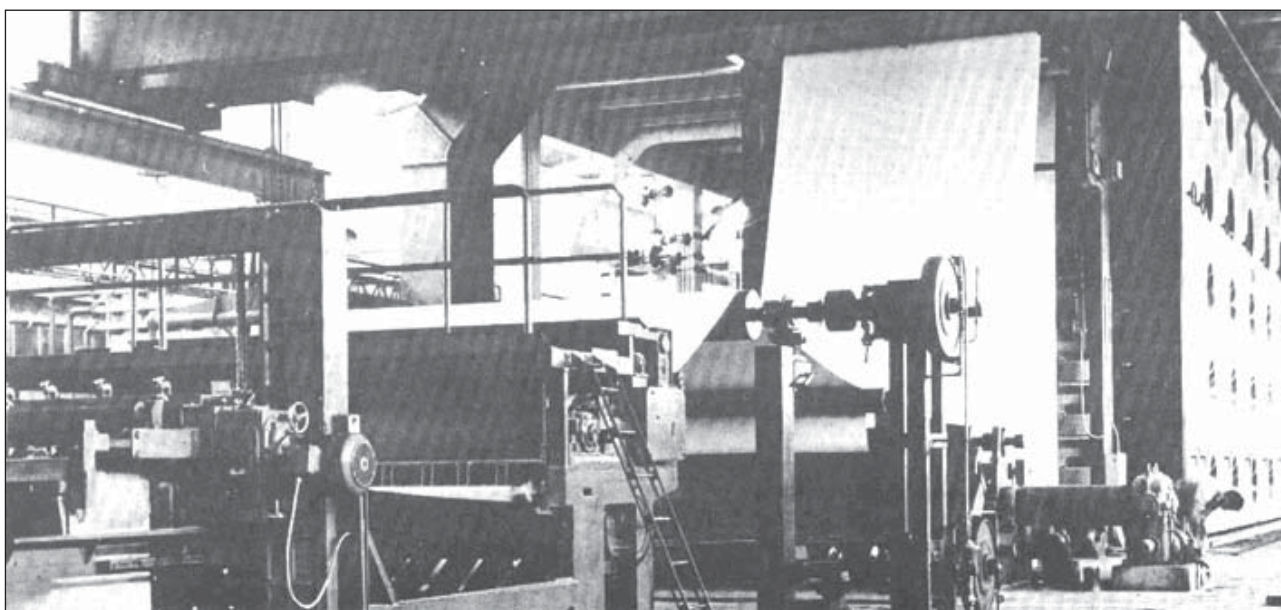
Senior staff were:

Medical Officer	Dr Lapping	Production Mng.	Gino Rivetti
Works Accountant	Alec Thomson	Shift Superintendents	Bepi Martelossi,
Cost Accountant	Jimmy McInnes		Ugo Testa,
Chief Purchasing Off.	Stan Gay		Giovanni Baldin,
Plant Engineer	Graham Mortimer		Ennio Zan,
Mechanical Eng.	Frank Rhodes		Marino Cudin
Services Eng.	John Earnshaw	Woodyard Supt.	Bert Beatie
Civil Eng.	Gino della Martina	Chemical Eng.	Ted Beesley
Instrument Eng.	Vic East	Construction Eng.	Tom Harman
Chief Draughtsman	Tom Fitzgerald		
Deputy Chief Draughtsman.	Ciano Ioppo		
Chemist	Bryan Thomas		

The total staff number was 116.

Design work for No 2 extension scheme started in early 1959. It included a 100 t/d flock line (No 3 line), No 6 digester, and a Korting chilling plant for liquor making. Courtaulds did the conceptual design for the flock plant in the UK but the detailed design was performed at Saiccor. There was a 20A atritor, a 12 million BTU/h Peabody furnace (burning paraffin) and a Fawcett Preston baling press. Construction started towards the end of 1959. The chilling plant was commissioned in December 1959, and No 6 digester on 4 January 1960. Before the flock was commissioned on 15 March 1960 it was realised another slurry press would be required, and this was ordered in December 1960. The new press with perforated plates was from Sunds, the first (for the pilot plant) was an Impco unit having grooved rolls with knives, obtained secondhand from Courtaulds Mobile. Production from the new flock line started slowly because of problems with the baling press, but reached 80 t/d after 3 months and 90 t/d after 10 months. After No 7 digester was started in May 1961, the flock plant was slowly pushed to 120 t/d by October 1961.

Design work on No 3 extension scheme started at Saiccor before No 2 scheme had been installed. For this, and all subsequent extensions until 1993, all design, construction and project management was handled by Saiccor, although odd engineers and draughtsmen from Courtaulds were often seconded to projects. This scheme was for a new sheeting machine (No 2 continua) the same size as No 1, from KMW but made in Italy, with a Flakt airborne drier, having a kite feed and a Pope reeler take-up, to be able to sort viscosities before cutting the jumbo roll into sheets. It also had the latest innovation of a vacuum headbox with two Holie rolls. This added substantially to the cost, but made little difference to the sheet properties (when compared to No 1 continua). Also part of No 3



No 2 continua

extension scheme was a 45 t/h coal boiler from Babcocks (No 4), No 7 digester, three Hagglund towers, two concrete liquor tanks, a liquor settling tank, an absorption tower and a Rauma pressure washer to follow the washpits. Orders were placed from April 1960. Civil work started in January 1961 and erection of plant and equipment followed. No 2 continua started up on 23 December 1961 and No 4 boiler just before the end of the year, the additional equipment for liquor making in June 1961, No 7 digester in May 1961, and the Rauma washer in April 1963.

No 2 continua's output was low for the first two months, largely because of difficulties the operators experienced with the kite feed. By the third month the machine was averaging 110 t/d and by the sixth month 125 t/d. This was slowly increased to 150 t/d after higher pressure steam was connected to the drier in April 1963, at which time both machines had approximately the same output.

Once No 2 continua was operating, the output from digesters could not meet the requirements. As a consequence flock output was reduced (to around 55 t/d), this pulp was not screened giving it a high silica content and high KW values, in other words the quality was distinctly inferior. To overcome this, the screening plant was extended. Orders were placed in February 1961 for Leje and Thurne cleaners and No 3 thickener to expand the second screening plant, also included was an M57 filter from Kamyr (No 7) and No 5 storage tower to enable high consistency pulp to be fed to flock. The expanded screening plant was commissioned in February 1962 and No 7 filter and No 5 tower in June 1962, from that time the quality of flock was comparable with sheet pulp although still slightly inferior in terms of KW values, silica, brightness and ash.

No 8 digester was ordered from Canzler in January 1961 and started in January 1962. No 9, from Avesta, was ordered in December 1962 and started in January 1964. No 10 was ordered in May 1964 and started in June 1965.

Once No 9 digester was operating, chipping capacity became inadequate. Design work for No 3 chipper started immediately. Orders were placed on Carthage in May 1964, civil work started in July 1964 and No 3 chipper was commissioned in March 1965 without chip screens – there were few oversize chips and little dust.

Liquor making capacity had to be increased to keep pace with digesters. No 9 pressure tank, with a stainless lining, was commissioned early in 1962, and immediately thereafter the brick linings in No's 7 and 8 were replaced with stainless steel. No 10 liquor storage tank for acid water was constructed in December 1962. No 2 Simon Carves sulphur burner was commissioned in May 1964 as a standby and as an operating unit in August 1965, when a fourth Hagglund tower was constructed for the Simon Carves burners.

Design work for chlorine dioxide bleaching (including No 8 filter) started in November 1962, orders were placed from December 1962, plant erection started in May 1963 and the plant was commissioned in December 1963. No 1 filter in bleaching was replaced with a Kamyr M57 unit almost twice the size in May 1965, after first installing a temporary filter to enable No 1 to be taken out. In November 1965 No 4A filter was commissioned, which effectively doubled the washing capacity after the chlorine dioxide stage.

A second Rauma pressure washer was ordered in June 1964 and commissioned in August 1965. In December 1964 a fourth thickener was ordered for second screening, which was started up in June 1965.

With all the new plant and equipment being installed, power consumption increased significantly, making it prudent to increase Saiccor's power generation capacity. The foundations for No 3 turbogenerator started in April 1964. This was a 6,5 MW Allen machine that doubled the total generating capacity. The machine was started in March 1965.

Sheet pulp quality did not change over the period 1960-1965. Blockage constants (KW's) averaged around 15, although often ranging above the Courtaulds limit of 20. Calciums were high, with monthly averages from 450 to 650 ppm summer to winter, while silicas averaged around 50 ppm. Until flock pulp went through second screening (June 1962) KW values averaged 30 and silica 270 ppm. After June 1962 these values dropped to 19 and 60 respectively.

Courtaulds were not entirely happy with Saiccor's pulp quality, particularly the high calcium levels. Fred Aldred, John More, and Malcolm Simpson from Courtaulds paid a number of visits to Saiccor to investigate what could be done to improve calciums, but nothing proved successful. Copper numbers (about 1,6) and resin (about 0,35 per cent) were considerably higher than today's levels of about 1,2 and 0,1 per cent.

Various timbers were tried. Wattle was first used in 1957, but the KW was 100. Wattle usage continued over the years up to 20 per cent of the furnish, but its pulp had high KW values until it was cooked separately in high pressure digesters (from 1970), then the percentage wattle was increased reaching a peak of 40 per cent in the late 1970s. The first trial using pine was done in November 1959, and was successful. For a period in 1962 pine was blended up to 5 per cent with *saligna*, producing satisfactory pulp. Casuarina was tried but proved unsuitable.

The first 2 500 t of high alpha pulp for the American market (Mobile) was made in November 1961. A second lot was made in January 1962. Mobile received 94 alpha for a few years but then it was decided 94 alpha was not an economic proposition for Courtaulds and Saiccor combined. A further 94 alpha trial was conducted in the late 1970s, but was only made commercially from 1996.

In April 1963, a trial of low-density pulp for acetate for Rhodiatocce was made on No 1 continua. The first and second press pressures were reduced to zero and the third press was lifted, making a 20-inch-high continental-size bale of 400 pounds (i.e. 744 kg/m^3 , current Rhodia bales are 606 kg/m^3). No feedback on this pulp is recorded, and no further trial was made.

In March 1961 an APV Kestner lignosulphonate pilot plant was commissioned. In the first month 680 kg of powder was produced. Production increased steadily to 10 t per month. In April 1962 the first 2 000 gallons of liquid sales for treating roads were made for the Kruger National Park, who became a major customer. The plant could produce up to 60 t/month of liquid product, but sales declined and the plant was shut down in November 1963.

By 1965 the total number of people employed had increased to 1 250 (381 white, 869 black) but productivity had risen to 116 t/a per man, a 90 per cent increase from the 61 t/a per man in 1958.

The period 1959-1965 was very eventful in terms of the movement of senior people.

A most tragic event at this time was the death of Assuero Bramuzzo, the Services Engineer, after a deaerator in the boiler house exploded on 15 September 1961. Three people suffered burns, of which Bramuzzo's were most severe, and he died on 18 September. The other two recovered.

Assuero was born in St Giorgio di Nogaro, Udine, on 25 September 1924. He served an electrical apprenticeship at SAICI and gained wide experience on their Chlor-alkali plant project. He arrived at Saiccor on 22 December 1953, where he supervised the erection and installation of most of the electrical equipment in the factory. When the factory started up he was appointed Services Engineer responsible for the steam, power and water requirements. Assuero's widow, Fabiana (née Miniutti, Piero's sister) returned to Italy after his death. She had arrived on the first plane in April 1954 as the SAICI nurse and married Assuero in South Africa.

Sir John Hanbury-Williams retired in July 1962, and died in August 1964. Sir Dallas Bernard became Chairman of Courtaulds in 1962, and in 1964 Frank Kearton took over.

Kearton, a man of enormous intellect, was a Chemical Engineer who had been the Courtaulds director in charge of the Saiccor project from its very beginning. He was born in 1911 and graduated at Oxford. During the war he worked on atomic energy projects and joined Courtaulds in 1946 with responsibility for chemical engineering research. He was appointed to the Courtaulds Board in 1952. He too regarded Saiccor as his 'baby', caring for it throughout his career at Courtaulds. During the years that Kearton was Chairman of Courtaulds, the Saiccor Board became a 'rubber stamp', as he would



Assuero Bramuzzo



Lord Kearton

make all the decisions with the Chairman of IDC prior to Board meetings. In 1961 Kearton became a Fellow of the Royal Society, in 1966 he was knighted and in 1970 he became a Labour Peer. Lord Kearton FRS was a strong supporter of the British Labour Party. He played a leading role in repelling ICI's bid to take over Courtaulds in 1962, after which he converted all Courtaulds' cash into assets, thereby building a highly complex conglomerate company. Until his retirement in 1975 (when he took charge of British North Sea Gas) Kearton was a major driving force at Saiccor. In a speech at Saiccor in 1973 Kearton called Saiccor 'the jewel in the crown of Courtaulds'. In 1989 Derek Keyes, then Chairman of Gencor and a Sappi director, also called Saiccor 'the jewel in the crown of Sappi'.

In early 1960 design work for the Usutu mill commenced in Johannesburg. Graham Mortimer and Ciano Ioppo joined the team. In October 1961 some 30 engineering personnel from Saiccor went to help commission Usutu, including Bruno Scorovich, section foreman of Pulp Finishing, who remained there.

Bill Hastie, who had been appointed to the Saiccor Board in October 1960, was appointed Chief Executive of Usutu and left Saiccor in February 1962, although he remained on the Saiccor Board. He left Usutu in 1968 and joined Premier, where he worked with Ugo Testa, a former Saiccor Shift Superintendent, and Thys de Waard, who from 1988 worked with Saiccor as Sappi's Technical Manager. Bill retired in the late 1970s and died in 1983. Ian Mackenzie joined Hastie in March 1962 as Usutu's Mill Manager.

Ken Reed became Saiccor's Works Manager in March 1962, as well as Development Manager until January 1965. In October 1967 he was promoted to Technical Director. He retired in December 1975 and died in 1978. He was a very competent chemical engineer and a very intelligent individual.

Norman Boulter became Technical Manager in March 1962. Norman, a chemist, was seconded from Courtaulds in 1959 and started working in the bleaching plant, where he simplified the process control. In January 1965 he was appointed deputy Works Manager and in July 1982 Works Director. He retired in May 1987. For many years he knew as much about dissolving pulp, and the making of it, as anyone in the world.

Tom Harman developed lung cancer in 1960, relinquishing his role as Chief Engineer, but continued as an engineer in the Development department. He died in November 1965. Viggo Melkjorsen became Chief Engineer and part of the Management team in November 1960, until he resigned in July 1965. In November 1962 Graham Mortimer became Plant Engineer, his previous function of electrical engineer was taken by Angelo Serravalle, who returned to Italy in June 1963, when Bruno Trevisan, the Power Station Foreman, took over.



Bill Hastie



Ken Reed



Norman Boulter

Paddy Brannigan resigned as Mechanical Engineer at the end of 1961. Enea Corrado, the Workshop Foreman took over, and Ado Magrin became Foreman of the workshop with Chargehands Giorgio Natali, Attilio Segatto, L Simonetti, C Franceschi and Engelbrecht (rigger) who supervised a team of 80 highly talented, largely Italian, artisans. To mention but one, the blacksmith Aldo Zamarian, who could patiently turn any piece of metal into a work of art. He once made a candelabra that brought tears to the Italian Consul's eyes when it was presented to him. Frank Rhodes was appointed Services Engineer from the beginning of 1962 to replace Bramuzzo. Corrado resigned in July 1963 and Frank Rhodes took over the position.

W H Kieviet was recruited as Services Engineer in October 1963 but did not last long and John Earnshaw was recruited for the position in May 1964. Vic East became Instrument Engineer from 1960.

Ted Beesley joined Saiccor in July 1960 as a Chemical Engineer in the development department and was appointed Development Manager in January 1965. Tom Fitzgerald was Chief Draughtsman, and from February 1962 Ciano Ioppo was Deputy Chief Draughtsman.

Dr Mortarino and Dr Bruce left in 1958, Dr Gianpietri, Fonda's assistant, replaced them as Production Manager. Dr Gianpietri resigned in March 1960 and Gino Rivetti, a Shift Superintendent, was appointed Production Manager, then Senior Production Manager in 1970, a position he held until he retired in 1984. Giovanni Baldin became Shift Superintendent in 1960 and in 1967 joint Production Manager. Over the period Sabbatini returned to the laboratory, de Faveri, Malpiedi and von Schoultz left, Bepi Martelossi, Ugo Testa, Marino Cudin, Martin Ferreira and Ennio Zan were appointed Shift Superintendents. Martin resigned in May 1963 but returned to the laboratory in July 1964.

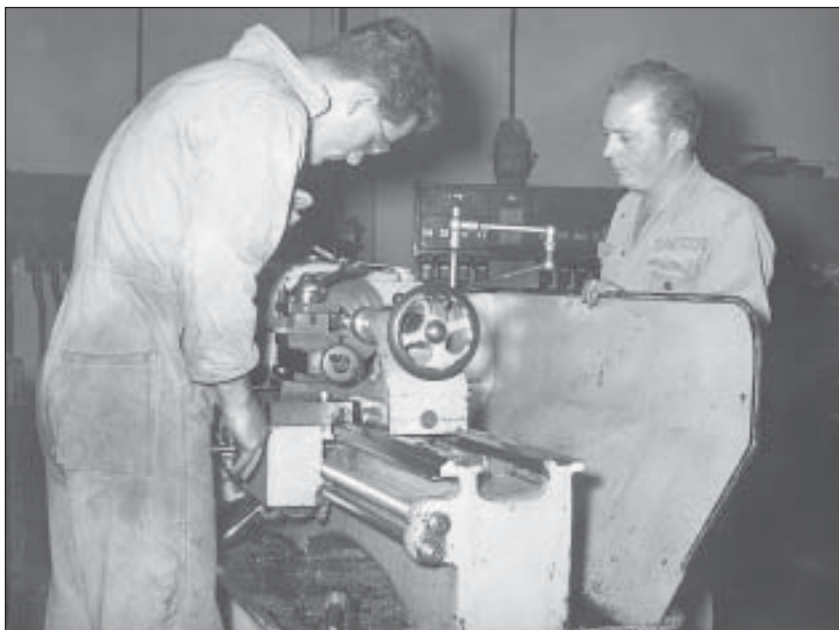
Ted Turner (seconded from Courtaulds Acetate laboratories in 1958), was appointed Laboratory Manager in July 1961. He returned to Courtaulds in August 1963. In September 1963 Pat Roche was appointed Laboratory and Research Manager, Domenico Sabbatini deputy, and Bryan Thomas (who joined in 1960) Senior Research Assistant. Roche was seconded to Saiccor for two years from Courtaulds Viscose Laboratory in mid 1958, returning to the UK two years later. In 1962 he returned to Saiccor as Research Manager being appointed to the Management committee in July 1962. He returned to Courtaulds in mid 1967.

Jock Mitchell, the Personnel Manager, was appointed to the Management committee in November 1960. He retired in November 1964 and was replaced by Roy Fortune, whose title was Personnel Officer.

On 10 December 1960, Franco Mason became the first Saiccor employee to complete his indentures under the Apprenticeship Act.



Vic East



Gastone della Martina with Franco Mason (RIGHT)

Giuseppe Mason (Boiler Attendant), Franco's father, joined Saiccor in April 1954 and was followed to South Africa by his family two years later. A year before leaving Italy Franco became an apprentice at a garage in San Giorgio, but when he joined Saiccor in April 1956 it was as an Operator in the Digesters. On 28 April 1957 he transferred to the workshop and indentured as a Fitter apprentice. Franco worked as a Fitter and then for many years as a Machinist until he retired in 1998. He is currently fully occupied as Chairman of the Italian Club, a position he has held since 1988.

Another bright young man of the time was Renzo Beltramini. Born in 1943 in Palmanova, Udine, he came to South Africa in October 1956 to join his father Amedeo, of the building department, who arrived in 1954. He was apprenticed as an instrument mechanic at Saiccor in November 1959. In June 1962, he received a letter from the Principal of the Natal Technical College congratulating him for coming first in South Africa in the National Examination in Engineering Science. As a result of company policy whereby all apprentices were required to terminate their employment on completion of their indentures (suspended in 1964), Renzo left Saiccor and joined AECI in Umbogintwini. In 1974 he formed his own instrument contracting company, Ultimate Instrument Contractors or UIC. The first job they did for Saiccor was the installation of the instrumentation for No 5 flock line in 1975. First screening followed, then the digester computerisation in 1979, by which time UIC had virtually become an extension to the Saiccor Instrument department. The major work that UIC undertook after that included the magnesium plant (electrics as well), the boiler house DCS, and the Mkomazi plant. UIC and Renzo Beltramini still do work for Saiccor.



Renzo Beltramini

Giuliano Piovesan, son of Pietro Piovesan (Waterworks) was the first of the Italian children to go to University in 1961. He studied engineering at Natal University and worked for Saiccor on the lignosulphonate pilot plant. Many followed Piovesan, as the Italian children proved to be excellent students. A number of university graduates, including Franco Mian, Fulvia Govetto, Giorgio Taverna, Gianni Ioppo and Cristina Meneghel worked for Saiccor for varying lengths of time, although most sought their fortunes elsewhere. Technikon graduates Luigi Mazzaro, Henry Zan and Lauro Chiccaro are having longer careers at Saiccor. Artisans Giordano Soldat, 'Box' Sguassero, Flavio Scarpa, Draughtsman Piero Simonetti, Mannie Rivetti, Loredana Rossetto and Mannie Wheeler have given many years' service. Stefano Titton (grandson of Giovanni Casarin), Daniele Pavan (grandson of Romeo) and Marco Boem (Piero del Ponte's grandson) were the first third generation Italians to be employed at Saiccor. Most of the Italian children have achieved successful careers. Those Italians who arrived in the mid fifties as twenty-something, were thirty-something in the sixties and their high spirited sporting life had become somewhat more sedate with family commitments.

BELOW: "Small pioneers" of the Italian class at the Catholic mission

ITALIANITÀ

1967 – Per mantenere vivo il senso di italianità in mezzo alla Collettività di Umkomaas è stata istituita spontaneamente una **scuola di italiano** presso la Missione Cattolica. Le famiglie interessate hanno appoggiato l'iniziativa del Sacerdote, don Ceselin, sostenendo la scuola con i propri mezzi, dando così la possibilità ai loro figli di mantenere, tramite la propria lingua, lo spirito e la cultura della loro Patria. "**PICCOLI PIONIERI**" è il titolo di questa foto che ritrae i figli degli emigranti di Umkomaas, assieme al loro insegnante, don Umberto Ceselin ed al collaboratore Stefano Rigotti.



Da sin. (seduti) Daniele Roson, Gianni Ioppo, Andrea Scarpa, Davis Cristin, Fabio Scorovig, Carlo Natali, Roberto Ambrosio, Marzio Pittich. - In piedi Nadia Scarpa, Sandra Pizzo, Anna Maria Tuzza, Maria Segatto, Nadia Martelossi, Carla Ambrosio, Laura Sabbatini, Claudia Scarpa, Carla Rivetti, Manuela Scarpa, Rose Mary Rocuzzi.

Cantacuzene admitted to not liking Kearton, and the feeling was probably mutual. Cantacuzene was an aristocrat who enjoyed socialising with his ilk (although he did count Edith Piaf and Maurice Chevalier among his friends), he was from a sales background and not at all technical. Kearton, by contrast, was a strong supporter of the Labour Party and also technically brilliant. It would seem inevitable that the two of them would find it difficult to work together at Saiccor, for which Kearton had a special affection. So in the latter half of 1965 Kearton fired Cantacuzene, or as Cantacuzene put it:

I was advised, quite out of the blue, by Courtaulds (London) that I was to go to London to take up an unspecified, non-autonomous position there. I replied to Frank Kearton, whom I did not like in any case, that I had no intention of leaving South Africa. This meant taking early retirement (age 52) which was not an easy decision to have taken, but I'm glad I did. It paid off in the end, and the latter half of my business life was both interesting and rewarding. On my last day at Saiccor (30 January 1966), I was handed a cable from Kearton, which read :

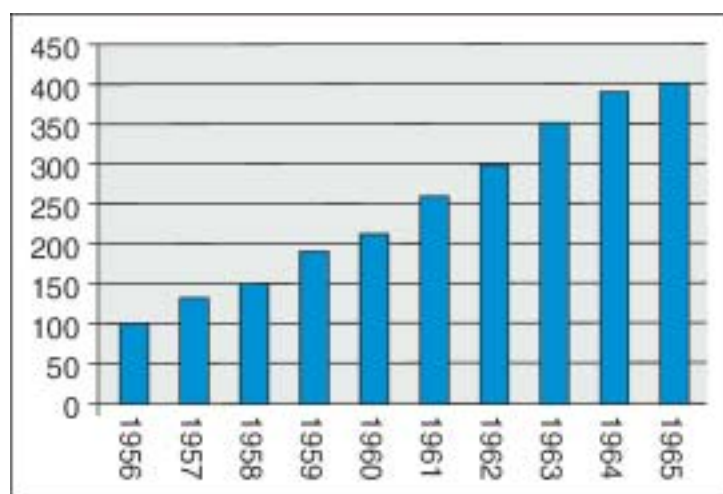
'Production cable of 29 January just received. Congratulations on excellent figures. It is a sobering thought to realise you have now passed the first million-ton mark. What a marvellous exit line - Regards Kearton.'

When he left Saiccor, Cantacuzene joined Timberit Woodboard (hardboard manufacturers) as Sales Director. In 1970 he joined Murray and Roberts in Johannesburg then moved to Paris as Managing Director of their International department, until he retired in 1982 at age 69. In 1983 he moved to the United States where he wrote his memoirs, *Trials and Tribulations of a Tumbleweed*. He died at the end of 1999 at age 87. Cantacuzene last visited Saiccor in 1987, where he made quite a rousing speech, in Italian, at the Italian Club, much to the delight of the Italians present.

The Cantacuzene period (1952-1965) was very successful. Production increased from a design of 110 t/d to 396 t/d, almost a four-fold increase. In 1956 Dr van Eck had said 'soon there may be similar factories along the Natal South Coast'; by the end of 1965 there were the equivalent of almost four at Umkomaas.

Productivity had increased from 39 t/a per man to 116 t/a per man, a threefold increase. The cumulative dividends paid out over the 10 operating years amounted to R14 million, more than the R12 million share capital.

At this stage the only weakness in the business was the quality of the pulp, which in some respects could not match pulp from Scandinavia and North America.



Production – tons/ day, during the Cantacuzene era, 1952–1965

The Yeomans' Period (1966 –1967)

John Leslie Yeomans became Managing Director of Saiccor on 1 February 1966. He had managed a groundnut plantation in North Africa before joining the purchasing department of Courtaulds. In 1961 he became Courtaulds' Deputy Chief Purchasing Officer, from where he negotiated all Saiccor pulp sales with Oakley Tainton (who was later to become Managing Director of Saiccor, in 1971). He later became Chief Purchasing Officer. Being a product of British imperialism, he tended to be considered arrogant, which did not endear him to the people of Saiccor, and this was compounded by his sharp reaction to anything he did not consider proper.



*John Leslie Yeomans, Saiccor
Managing Director 1966–1967*

From 28 January 1966 the Board comprised: H J van Eck (Chairman), W F Hastie,* C F Kearton,* G S J Kuschke, D R B Mynors,* O W Tainton and J L Yeomans.* In September 1967 Mynors resigned and was replaced by F C Aldred.* (*British)

Paddy Brannigan rejoined Saiccor on 1 January 1966 as Chief Engineer and immediately re-organised the engineering department. Graham Mortimer became Deputy Chief Engineer but had functional responsibility for the electrical department, services and liquor plant. In January 1967 Brannigan was appointed to the Management Committee. John Earnshaw became Divisional Engineer for the woodyard to bleaching areas and Frank Rhodes for the drying plant, workshop and transport.

Over this period production increased by 8 per cent per annum, evenly spread over the two sheeting machines and the flock plant.

Production t/d				
	No 1 Continua	No2 Continua	Flock	Total
1965	134.1	141.3	125.2	400.6
1966	144.4	150.9	137.3	432.6
1967	157.5	162.3	148.0	467.8

As no capital projects came on stream, the additional production came from improving plant availability and making relatively minor alterations to plant and equipment:

Jan 1966	Pneumatic chip charging to Nos 7 and 10 digesters
Jan 1966	No 8 Hagglund Tower started
April 1966	Kamyr HD pump for flock
Early 1967	Bleaching No 6 storage tower in operation
June 1967	Flock bales increased from 440 to 500 lb to improve output of baling press
June 1967	Installation of three oil-fired package boilers to overcome steam shortages
!966-67	Higher-pressure steam to the sheeting machines

From 1967, the maintenance philosophy was changed. The four-day annual factory shutdown was abandoned to be replaced by shorter, more frequent maintenance stops on small sections of the plant sequentially.

At the beginning of 1967 design work started in the development department on a 50 t/d extension scheme. This was for another flock line (No 2 flock line), with a 20A atritor, Peabody furnace and a new baling press. Also part of the scheme was No 11 digester, vorjects in first screening, and a third water intake pump.



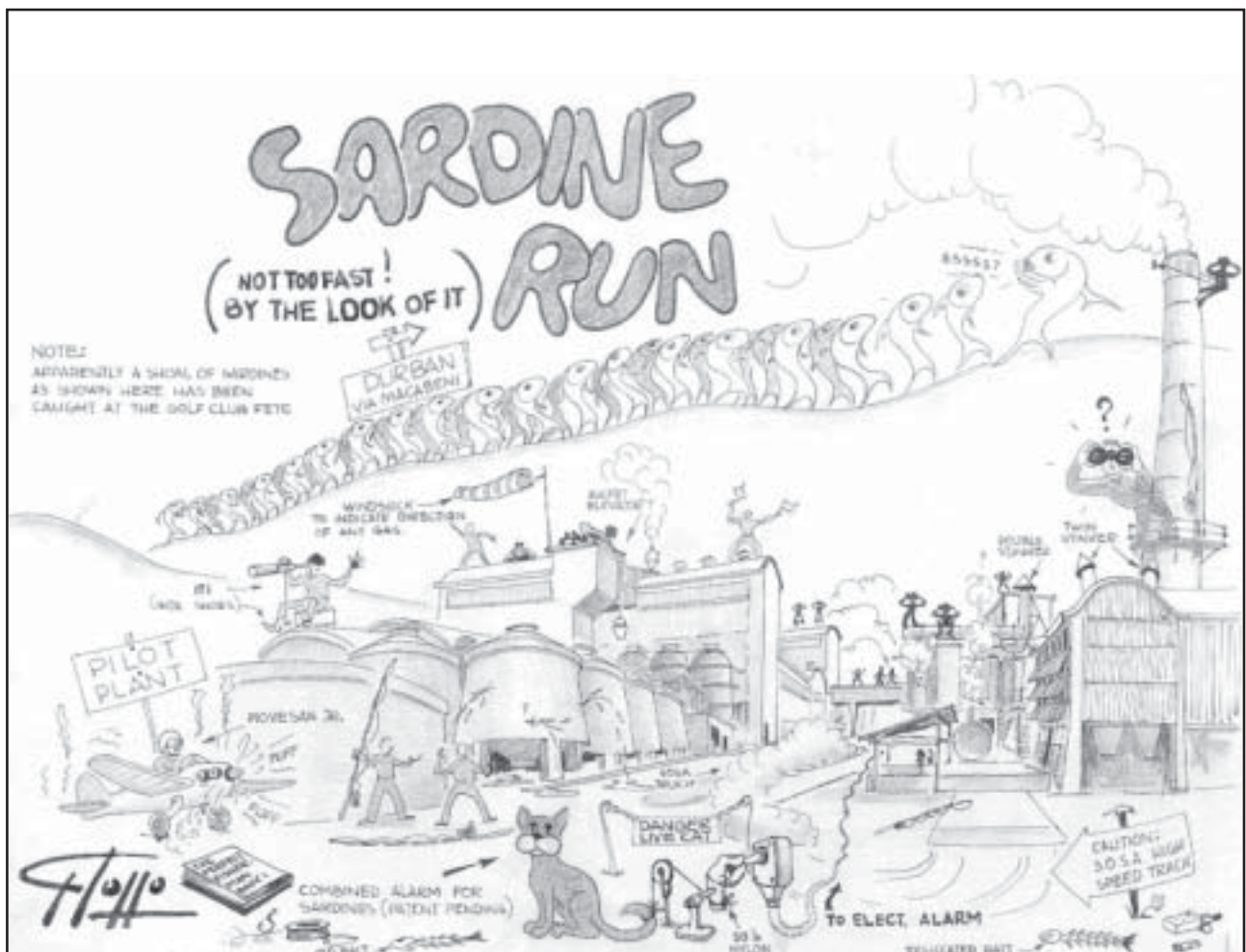
Tom Fitzgerald

Tom Fitzgerald, the Chief Draughtsman, and Ciano Ioppo, by this time a project engineer, played leading roles in the design. Tom joined Saiccor on 1 July 1956 as Chief Draughtsman from the mines, a cheery man with a ready smile and a joke. He had been involved in all the Saiccor extension schemes up to that time, and continued to be until he retired in January 1976. He died in December 1993.

Graziano (Ciano) Ioppo was born in Gorizia (Friuli) but grew up in Luxembourg. In 1943, at the age of 15, he joined SAICI as a translator for Alessandro Brunetti. With his natural artistic talent, he was soon transferred to the drawing office where he worked on the original design for Saiccor. He joined the Saiccor drawing office in May 1955 and became Deputy Chief Draughtsman in 1962. In 1967 he became Projects Engineer and in 1974 Projects Manager. He played a leading role in all Saiccor projects until he retired at the end of August 1992. Ciano received a number of Italian decorations, culminating in Maestro del Lavoro in 1987. A great artist, he frequently did the sets for stage plays and produced cartoons for the Saiccor in-house magazine.



Ciano Ioppo



A cartoon by Ciano Ioppo, which appeared in The Raypulp Recorder, August 1961



Foam on the beach at Clansthal, 1963, a result of Saiccor effluent in the surf

The major project to come on stream in 1967 was the submarine effluent pipeline. The origins of this project go back to when the factory was commissioned and effluent was first put into the ocean at the Mkomazi River mouth, on 11 August 1955. Effluent in the surf caused severe foaming and proved to be a nuisance to the people of Umkomaas. In October 1955 Errol Hay of Clansthal, whose property was on the shoreline, sent a letter of complaint to Cantacuzene. When Hay felt nothing had been done, he wrote to the Town Board and then to the Department of Water Affairs. The Department was concerned and approached Saiccor.

In 1957, in an attempt to reduce the foam problem, the effluent was discharged directly into the river upstream of quarry bend. This had little effect, except to create some foam on the river as well, and the practice ceased at the end of July 1958. Hay's persistent complaints to the Department resulted in a steering committee being formed to look into the issue. The committee comprised representatives from the SABS, the National Institute for Water Research, the Department of Health, the Department of Water Affairs, the Town Board, Saiccor and included Hay himself. Although they met at regular intervals from November 1958 to the end of 1962, little was achieved.

On 26 June 1952 the Water Court granted Saiccor the right to abstract water at the rate of 20 million gallons per day (approximately 3 800 m³/h) from the Mkomazi River. By the late 1950s, it was realised that this was not enough and further application would need to be made to the Water Court. When it was known that the Umkomaas Town Board would oppose the application, the Saiccor Board insisted



Foam at Scottburgh, a cause for concern (Natal Mercury, 7 September 1961)

the best legal representation in the country be obtained. None less than Issy Maisles QC represented Saiccor at the Water Court (16 May 1960). Mr Justice Henochbert granted Saiccor the right to abstract a further 12 million gallons/day (approx. 2 200 m³/h), but there were a number of conditions. One of these was 'The effluent should be treated and discharged in such a manner as not to create a nuisance'.

This was all Errol Hay needed to rekindle his protest against the foam. He again wrote to Cantacuzene, Managing Director at the time, Dr Hendrik van Eck (Chairman of the Board), Water Affairs, and Douglas Mitchell, the local MP, who raised the issue in Parliament.

Through their frequent encounters, Cantacuzene and the 80-year-old Hay struck up a friendship. When Cantacuzene divorced his wife Barbara, Hay introduced him to Pam, the daughter – whom Hay had known from birth – of one of his oldest friends in Johannesburg. Cantacuzene and Pam were married in August 1963. Hay died in Durban in 1965.

After the Water Court judgement, Saiccor started looking for a solution to the effluent problem. The removal of lignosulphonates was the first attempt at a solution and the pilot plant was started in April 1961. The lignosulphonates market, however, was limited, and by October 1962 the Saiccor Board decided a submarine pipeline was the only solution. Campbell Bernstein and Irving (CBI) went out for tenders for a pipeline in April 1963. The project was given more urgency when, on 31 May 1963 the Department of Water Affairs closed down Anglo American's titanium factory, Umgababa Minerals, for failing to comply with the conditions of their effluent permit. (The Department was under severe pressure from the South Coast Vigilance Association.)

The tenders for the pipeline were shortlisted to Land and Marine (South Africa) and Collins Submarine Pipelines (USA). In August 1963 an order was placed with Texan Sam Collins for a 1½ mile (2,3 km), 36 inch (914 mm) rubber-lined flanged steel pipe with diffusers over the last 300 m, all at a cost of R1 million. Collins was selected because he had bigger and better equipment (including a 'Collins' trenching machine) and relevant experience. A news brief of the contract award was released on 21 January 1964, which calmed critics and placated the Department of Water Affairs sufficiently to persuade them to renew Saiccor's effluent permit in 1964.

Work on the effluent pipe started in Saiccor's development department in 1963. By August 1964 blasting of rock for the effluent pumphouse commenced and by September 1964, rubber-lined effluent pipes started arriving at Collins' workshop in Durban.

When Ted Beesley became Development Manager in January 1965, the effluent pipeline was Saiccor's major project, but because of its high profile outside the company, Ted admits to being relegated to 'minute taker' – nonetheless he was the man at the 'coal face'.



*Erroll Hay and
Michel Cantacuzene, 1962*



Ted Beesley

After graduating as a chemical engineer from the University of Natal, Ted joined the Sugar Milling Research Institute, who soon sent him to do an 18-month graduate diploma at the University of Queensland. He later joined Illovo Sugar as a Production Manager, and in 1960 joined Saiccor as a Chemical Engineer in the development department. In 1965 he was appointed Development Manager and in 1973 Environmentalist, a position he held until he officially retired in 1991, from which time he has continued as a part time consultant.

The pipeline project proceeded according to schedule up to November 1965; the pumphouse was completed in February, pipes started arriving on site in April, Mather & Platt effluent pumps arrived in April and between 4 and 8 November 1965 the sea line section of the pipe was pulled into position.

On the night of 8 November, however, the current changed to north-east and bent the empty pipe in a southerly direction. The bolted flanges (sealed with bitumen) were all leaking. The problem was then to 'trench' the pipe and seal the flanges, both of which proved to be enormous challenges. Collins' trenching machine did not work, and when his trenching barge went to Durban for repair, it was impounded and ordered by the courts to work on the two Durban pipelines, where Collins had fallen far behind schedule.

Very heavy seas in May 1966 wrecked the Durban pipelines. The Saiccor pipeline, being full of water, was undamaged, and in fact the rough seas buried the pipe, solving one of Collins' problems. The leaking flanges were eventually sealed by inserting stainless steel gaskets into the flanges from the inside of the pipe. Collins was at the time torn between the three pipelines, each with problems, and



Pipeline construction for the discharge of effluent into the sea, 1965



Dr Hendrik van Eck, Chairman of the Saiccor Board, turning on the switch in the pumphouse at the opening of the submarine effluent pipeline, 10 March 1967

consequently progress on all was painfully slow. The project had become a disaster and a public embarrassment. The Saiccor Board considered dismissing Collins but was not convinced anyone else could do any better.

The Saiccor pipeline was finally completed in early March 1967, and was started at a grand opening ceremony attended by Dr van Eck and the Saiccor Board. Paddy Brannigan noted in the Factory Report that 'The commissioning of the effluent pipeline on 10 March 1967 was a great success and has eliminated our foam problem.'

From the end of 1965 to 1967 pulp quality deteriorated, particularly with respect to trash levels (i.e. ash). Annual average figures were:

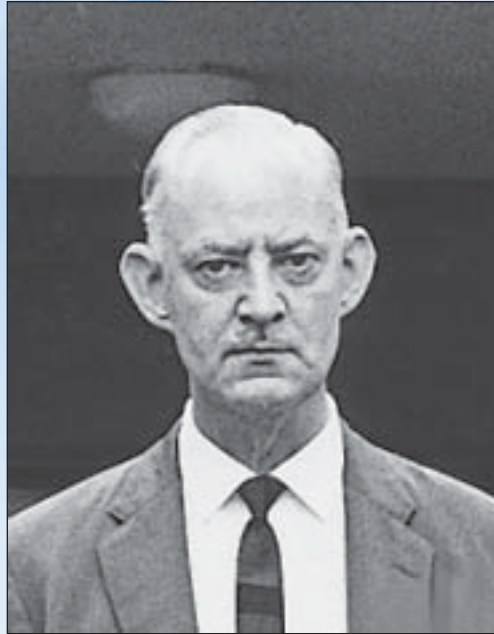
	ASH (ppm)						BLOCKAGE CONSTANTS	
	Sheet			Flock			Sheet	Flock
	Total	Si	CaO	Total	Si	CaO		
1965	914	54	661	1625	70	692	20	24
1966	1043	59	699	1972	93	806	25	31
1967	1168	78	807	2235	146	935	24	31

The one improvement to quality was the installation of densification presses (from Farrel) on No 1 continua in November 1966, followed a month later on No 2 continua. This stopped sheets floating in caustic soda in the viscose factories.

Courtaulds complained about the quality of Saiccor pulp. Fred Aldred believed the local management was at fault in that Yeomans was not technical and Reed was more interested in production and expansion projects. Aldred informed Kearton of his opinion. Yeomans was transferred back to Courtaulds at the end of August 1967, and was replaced by John Wharton, the Technical Manager at Courtaulds' viscose plant at Mobile, Alabama. Ken Reed was made Technical Director (a Courtaulds nominee), relinquishing his responsibility for running the factory. In October 1967, D R B Mynors resigned from the Board, and was replaced by F C Aldred.

The Wharton Period (1967 –1970)

John Wharton was Technical Manager at Courtaulds' viscose plant in Mobile before transferring to Saiccor as Managing Director from 1 October 1967. His appointment was intended to focus Saiccor's attention on quality, something that was generally acknowledged to be lacking at the end of his predecessor's era. However, Wharton spent much of his energy on trivia, like insisting that the staff bus stops at the back door of the main block, not the front. This, coupled with a very short temper, detracted from his reputation and he was not considered a good manager. An Americanised Englishman, he is said to have found it impossible to drive a motor car with a manual gearbox!



*John Wharton, Managing Director
1968–1970*

At the time of Wharton's appointment, Ken Reed became Technical Director. From 1 October 1967 the Board comprised H J van Eck (Chairman), F C Aldred,* W F Hastie,* C F Kearton,* G S J Kuschke, K Reed,* O W Tainton and J Wharton.* (*British)

Over the period of Wharton's tenure, Hastie resigned in October 1968, Van Eck died on 18 February 1970, Kuschke became Chairman in March 1970 and A J van den Berg was appointed an IDC representative.

With Reed's move, Harry 'Paddy' Brannigan became Works Manager from 1 October 1967. Brannigan was an Irish electrician who came to South Africa to work on the mines. He joined Saiccor on 1 March 1959 as Mechanical Engineer, left at the end of 1961, but rejoined as Chief Engineer on 1 January 1966. Paddy was appointed to the Board on 8 October 1971 and remained as Works Director until he retired in July 1982 to run his chicken farm. He committed suicide in 1984. Paddy was a very dynamic man who constantly drove production while energetically putting together one expansion plan after another.

Production increased by 27 per cent over the Wharton period. The increase was all flock pulp, which went from 148 t/d in 1967 to 274 t/d in 1970, while the two sheeting machines averaged about 160 t/d each over the period.

1967	468 t/d	1968	525 t/d
1969	585 t/d	1970	594 t/d

All the increased production came from expansion projects. This was a very busy period for projects.

Design work on a 50 t/d expansion scheme started in the Development department at the beginning of 1967, which included another flock line (No 2 line) with a 2OA atritor and a baling press, No 11 digester, vorjects for first screening, and a third river pump. To enable No 7 filter to cope with the additional flock capacity, a sidehill screen was to be installed before the filter, to do some of the dewatering. Orders were placed from April 1967 and plant was commissioned early in 1968; No 11 digester on 8 January, flock line on 1 April, vorjects on 30 April,



*Siegfried Kuschke,
Chairman 1970-1971*



Paddy Brannigan



Flock bales, line 3



No 5 boiler and the new chimney, 1969

and the river pump in May 1968. In March 1968 a third slurry press was ordered for the flock plant and was commissioned in November 1968.

In May 1968, the partners approved a scheme to increase production to 235 000 s.tons per annum (584 t/d) which included a new boiler (No 5) and chimney, No 12 digester (that would have a cyclone for faster loading), another pressure washer after the washpits, four blending towers to smooth out the batch process of digesters, another Kamyr filter in first screening and a duplicate filter (No 3A) for the caustic stage in bleaching. Orders were placed from June 1968 and commissioning took place from early in 1969. No 12 digester April 1969, chimney and No 3A filter 17 April, No 5 boiler on 7 August, three blending towers on 26 August, the fourth tower and No 3 Repola in March 1970.

In May 1968 wattle was cooked at high pressure (10,4 bar) in No 11 digester (the first high-pressure digester). The pulp quality from this wattle cook was much improved. In October 1968 the Board approved a scheme to handle and cook wattle separately, which entailed a wattle silo (No 4) and a Rader pneumatic loading system for all digesters, with a large blower, cyclones and steam packing on each digester as opposed to the old system where chips were dropped from a conveyor through a chute into the digester. The first digester was connected to the blowing system in June 1970, and all the other digesters followed within two months. No 4 silo started in September 1970.

In May 1969 the Board approved a 280 000 s. ton per annum (696 t/d) extension scheme consisting of a new 375 t/d Kamyr diffusion

bleach plant and extending No 2 continua dryer for a capacity of 260 s. t/d (236 t/d). The dryer was extended between 6 and 22 November 1970 (at which time the Pope reeler was dismantled). There were numerous teething problems, but by April 1971 the machine achieved 245 t/d at an availability of 95 per cent. There were delays in the delivery of the diffusion screens for the bleach plant and the plant was only started up on 15 March 1971.



Frank Rhodes (left) and Giorgio Natali in the diffusion bleach plant, 1972

In addition to these major extensions, there were a number of smaller projects undertaken over the period.

- *September 1968*: centriscreens were commissioned in second screening to prevent blockages in the centricleaners.
- *October 1968*: a steam mixer was installed in the flock plant to heat the pulp going to the slurry presses to improve drainage; the sidehill screen on No 7 filter was enlarged.
- *March 1969*: the installation of No 13 digester was approved, commissioned 4 February 1970. Also the strengthening of No 9 and 10 digesters to operate at 10-bar, completed April 1970.
- *May 1969*: 8-bar steam to No 1 continua dryer and in October 11-bar and machine speed up to 56 m/min.
- *September 1969*: ordered an attritor system for grinding limestone, commissioned in January 1971.
- *October 1969*: ordered No 3 Simon Carves sulphur burner, commissioned in October 1970.
- *December 1969*: Hick-Hargreaves chilling plant commissioned in the liquor plant, flocculant introduced to help settle solids in cooking liquor, anthracite/sand used in the water works filters.

Although quality was a major focus of attention over the Wharton period, pulp quality parameters changed very little until late in 1970. In fact as flock pulp became a higher proportion of Saiccor's total

output, overall quality deteriorated slightly. The quality of flock was always inferior to sheet, in that it had higher KWs and impurities and lower brightness (where sheet had 96 units of brightness flock had 89, as flock came into direct contact with air at 500 °C it was slightly charred). In addition, although the flock bale was a solid piece of compressed pulp, it had a soft end, and a piece of the bale about 250 mm long would often break off in transit, causing a housekeeping nightmare for the viscose factories.

Trials from November 1967 showed that spent acid from the chlorine dioxide plant and filtrate from the chlorine stage in bleaching when used in the washpits could reduce calcium levels by up to 200 ppm, but no permanent installation for this was undertaken.

After separate wattle cooking was commissioned in September 1970, KW values came down to 18 in sheet and 21 in flock. At about the same time additional vorject plant in first screening started lowering the shives.

From 1968 resin content in the pulp started being measured. Values of 0,30 – 0,33 per cent were measured, which is considerably higher than present levels of 0,05 – 0,12 per cent.

Silica levels in flock seemed to benefit from the sidehill screen added to the thickening filter (No 7) after second screening, a further benefit was seen when the screen was extended. Quality parameters over the period were:

	SHEET					FLOCK			
	KW	Ash ppm	CaO ppm	Si ppm	Resin %	KW	Ash ppm	CaO ppm	Si ppm
1967	24	1168	807	78	–	31	2235	935	146
1968	25	1126	791	62	0.31	29	2090	871	93
1969	24	1156	781	61	0.30	29	1391	730	64
1970	21	1224	879	53	0.31	24	1904	880	59

Although the effluent pipeline worked adequately, the nuisance caused by the effluent had not disappeared. Foam still appeared from time to time and was treated with defoamer. While the extent of the foam was considerably less than before, it still gave rise to complaints. In July 1968 a public meeting was held where Saiccor and the Department of Water Affairs addressed people's concerns, among which was the effect effluent could have on sea life. In August 1968 Saiccor appointed an effluent officer, from the laboratory, to constantly patrol the beaches.

The effluent pipeline worked satisfactorily but the pumps were troublesome. On 17 March 1970 Paddy Brannigan wrote in the factory report: 'One of the effluent pumps failed in service, the casing having

fractured right round. This failure is a repeat of a previous pump and appears to be a design fault. It is hoped that the modifications which are being made by the suppliers, will in due course give us a reliable installation.'

Kearton took the matter up with the suppliers, Mather & Platt, and sent the following letter to Wharton.

27 April, 1970

Mr. J. Wharton,
South African Industrial Cellulose
Corporation (Pty.) Ltd.,
P.O. Box 62,
Umkomaas, Natal.

Dear John

I hope you got back safely, refreshed and stimulated by your overseas trip.

I noticed in Brannigan's monthly report a complaint about the effluent pumps. I sent a copy of the complaint to Sir William Mather (copy of my letter enclosed).

I have now had a reply from Sir William – a copy of which I also enclose. It seems to me you ought to take the opportunity of his goodwill to make a considerable claim on him for the inconvenience caused to Saiccor!

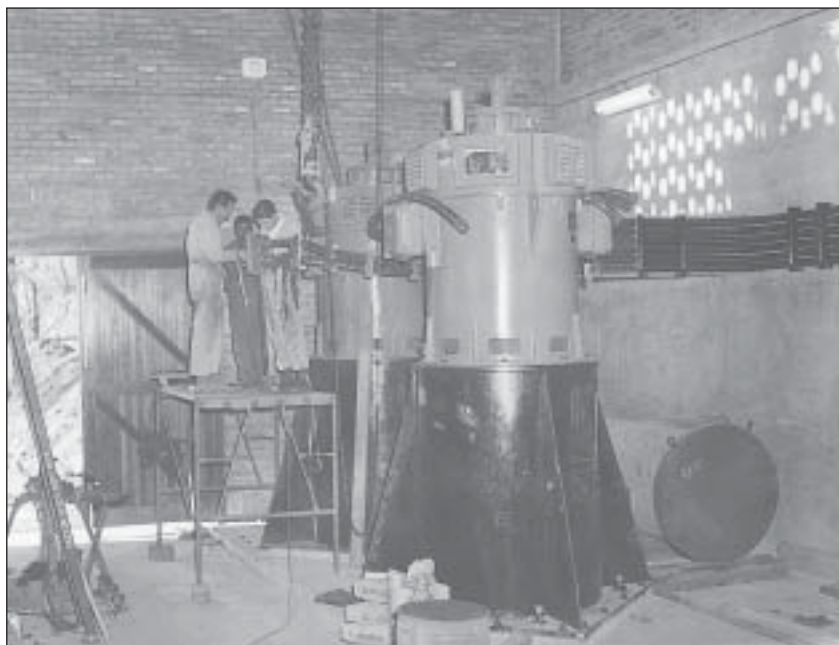
Yours sincerely
C.F. Kearton

c.c. Mr H Brannigan

The pumps were modified and did become a reliable installation.

When Brannigan was appointed Works Manager in October 1967, he continued to carry the responsibilities of Chief Engineer throughout this period (1968–1970). There were no other changes to senior positions in the engineering department.

In the production department, the increasing amount of processing plant created the need for additional production managers. On 1 January 1967 Giovanni Baldin was appointed joint Production Manager with Gino Rivetti. Baldin had responsibility for bleaching and drying and Rivetti the remainder. Martin Ferreira replaced Baldin as a Shift Superintendent. Baldin resigned at the end of November 1969 and was replaced by Bepi Martelossi, who in turn was replaced by Strath Redding (from the laboratory) as a Superintendent. At the end of January 1970, Ugo Testa resigned to join Usutu, and was replaced as a Superintendent by Silvano Moro. From May 1969 John Davey took over from Bert Beatie as a Woodyard Superintendent, and Bert moved to Stores.



The installation of the two effluent pumps, June 1965

In August 1970 Marino Cudin was appointed the third Production Manager, with Gino Rivetti being Senior Production Manager. Cudin had responsibility for liquor making, digesters and first screening, Rivetti for bleaching and the chemical plant, and Martelossi for the drying plants. Aldo Rossetto (from the electrical department) replaced Cudin as a Superintendent in January 1971.

Domenico Sabbatini, who had become Laboratory Manager when Pat Roche returned to Courtaulds in 1967, resigned at the end of November 1969. He was replaced by Bryan Thomas.

In April 1967 Roy Fortune resigned as Personnel Officer and was replaced by Alistair Lightbody.

The major personnel problem from 1966 to 1970 was a countrywide shortage of good artisans. Recruitment extended to both Italy and the UK.

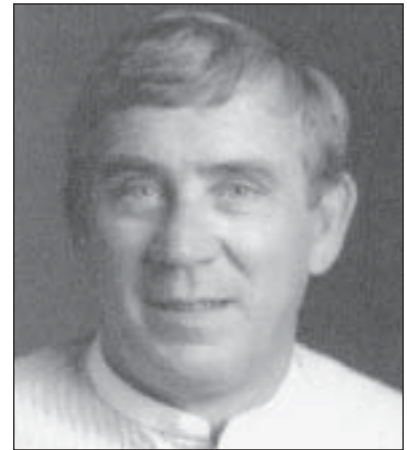
In 1969 Bruna Segatto (wife of Attilio), started making and selling pasta in Umkomaas, from the Golden Apple Café on the corner of Brad and Bisset streets. Business was encouraging and the four Segatto's – Bruna, Attilio, Basilio and Dirce – then set up a pasta "manufactory" business diagonally opposite the Golden Apple. With new machines and brisk business, production expanded to reach 100 to 150 kg/day. The pasta, known as Pastificio Italiano Bruna e Attilio, was sold throughout Natal. However, much time and effort were required to keep the machinery going, which started to interfere with Attilio and Basilio's work at Saiccor, and in 1978 they sold the "manufactory" to Graham Anderson and Ronnie Kruger. The business was shortlived, however, and the premises became a greengrocery. The pasta machines were bought by Elio Rossi, who made pasta for a while before selling the machines to Bruno Scorovic in Swaziland. These machines are apparently still being used by Bruno's sons.

Achille Fontana, from Teor in Friuli, joined Saiccor on 6 August 1954 as a 21-year-old fitter. By the late 1960s he had become expert on the hydraulics of the flock baling presses, but was starting to become frustrated with his lack of promotion. In 1968 he formed a company, Fontana Art Metals, and in his spare time started making brass tabletops and headboards in his house. In 1970 Achille resigned from Saiccor to work fulltime at Fontana Art Metals, increasing his product range to include wrought iron gates and burglar guards. In 1972 he started making locking rings for steel drums and the business took off. As the business grew, technology was improved and the range of products offered to the drum industry was expanded.

In 1979 Achille's son Raoul was apprenticed as a fitter and turner at Saiccor. After serving his apprenticeship he worked in Italy for six months before joining Fontana Art Metals in 1982. As Raoul developed in the business, Achille started spending more and more time on the farm he had bought in Ilfracombe in 1981, soon becoming a very professional and successful farmer. Achille died suddenly in July 1989.

Raoul continued to expand the business to include components for fibre and plastic drums. Further diversification followed, including wire products and specialised press components, and finally a plastics division.

In 2000 the company name was changed to Fontana Manufacturers, to more accurately reflect its business of manufacturing industrial components for the packaging industry. Today the company makes approximately 600 million components per annum for local industries, plus exports to Australia, the UK, France, Germany, the USA and Asia.



Achille Fontana

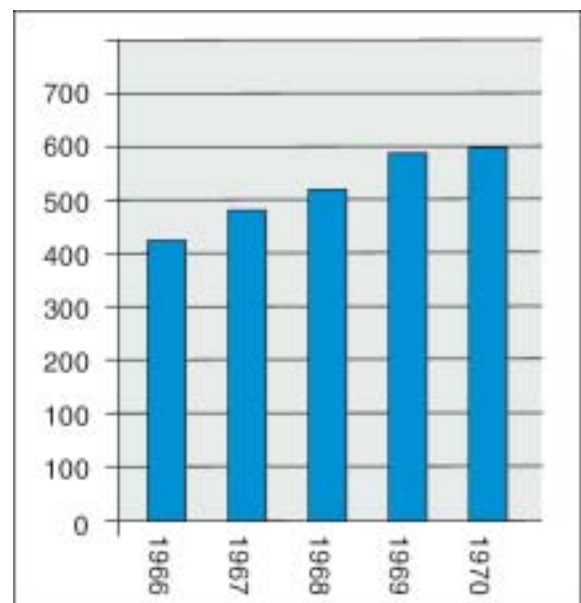


Raoul Fontana

At the Saiccor management meeting on 2 October 1970, Wharton announced that he would be returning to the United States in the near future to work on a special project for Courtaulds, and that Tainton had been appointed Managing Director of Saiccor with immediate effect. The management committee paid tribute to Wharton for initiating the 240 000/280 000 ton expansion schemes and expressed their regret that he would not see their full implementation. Wharton left Saiccor, but remained on the Board until 8 October 1971.

When Ted Beesley congratulated Tainton on his appointment, Tainton commented, 'It's about bloody time.'

Production had increased steadily over the period 1966–1970 (the Yeomans and Wharton periods), largely because of expansion programmes. By 1970, the end of Wharton's tenure as Managing Director, Saiccor was supplying approximately half of Courtaulds' dissolving pulp requirements.



Production during the Yeomans and Wharton periods, 1966–1970

The Tainton Period (1971 –1983)

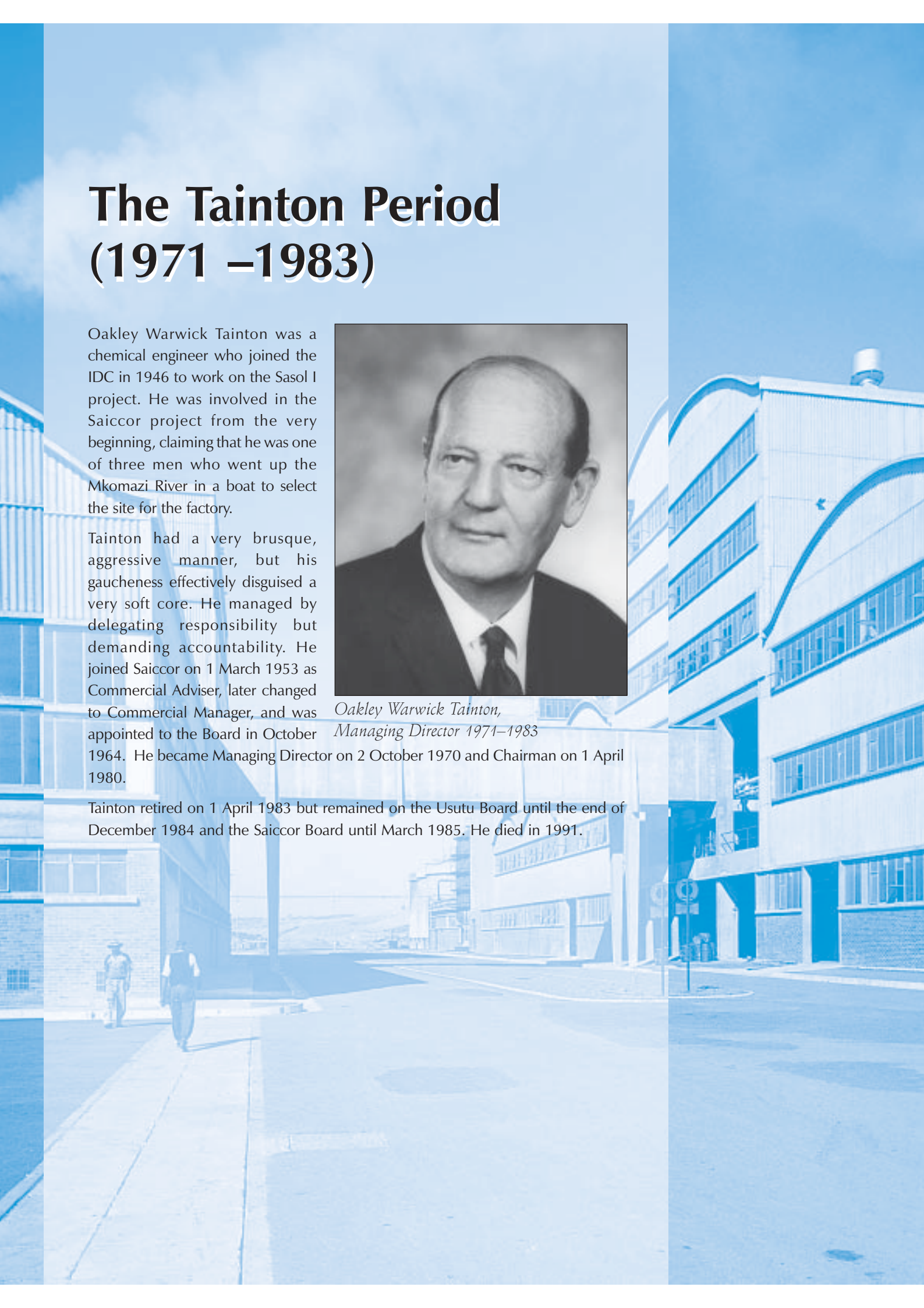
Oakley Warwick Tainton was a chemical engineer who joined the IDC in 1946 to work on the Sasol I project. He was involved in the Saiccor project from the very beginning, claiming that he was one of three men who went up the Mkomazi River in a boat to select the site for the factory.

Tainton had a very brusque, aggressive manner, but his gaucheness effectively disguised a very soft core. He managed by delegating responsibility but demanding accountability. He joined Saiccor on 1 March 1953 as Commercial Adviser, later changed to Commercial Manager, and was appointed to the Board in October 1964. He became Managing Director on 2 October 1970 and Chairman on 1 April 1980.



*Oakley Warwick Tainton,
Managing Director 1971–1983*

Tainton retired on 1 April 1983 but remained on the Usutu Board until the end of December 1984 and the Saiccor Board until March 1985. He died in 1991.



From October 1970 the Board comprised: GS J Kuschke (Chairman), FC Aldred,* CF Kearton,* K Reed,* OW Tainton, AJ van den Berg and J Wharton.* (British)

Over this period, changes to the Board were:

G S J Kuschke died on 27 July 1971 – replaced by J J Kitshoff

J L van der Walt (Forests) appointed 7 May 1973

J Wharton resigned 8 October 1971 – replaced by H Brannigan

A J van den Berg resigned – replaced by P J van Rooy

Lord Kearton retired 14 November 1975 – replaced by Sir Arthur Knight (Chairman of Courtaulds)

K Reed retired in December 1975 – replaced by J A Carrick

N S Wooding replaced Sir Arthur Knight March 1977

J A Carrick retired July 1978

F C Aldred resigned 1 August 1979 – replaced by J R Wrangham

J J Kitshoff retired 1 April 1980 – Tainton became Chairman

D N A Hunt-Davis replaced Kitshoff, but never attended a meeting, resigning (from the IDC as well) at the end of October 1981

M Macdonald appointed IDC representative March 1982

Brannigan retired 30 June 1982 – replaced by N Boulter

Tainton retired as Chairman 31 March 1983 – N S Wooding appointed Chairman

Lord Kearton retired at the end of 1975 and wrote to the Saiccor Board conveying his great pleasure in having served the company from its inception.

Johan van der Walt was a forester who joined Saiccor's forests in its earliest days. On 1 July 1960 he was appointed a Director of both Saligna Forestry and Waterton Timbers, and a few years later Managing Director of both. In the early 1970s he was also appointed to both the Saiccor and Usutu Boards, remaining on both until he retired in 1988. He died in 2000.

Johan's management style was very 'hands-on' and autocratic, but he ran a very successful operation for more than 20 years, constantly making profits (20–25 per cent of Saiccor's profits) while keeping Saiccor supplied with timber, at a good price. He also ran what was considered by many to be the best saw milling operation in the world.

On 1 October 1971 John Earnshaw was appointed Chief Engineer. An ex-RAF fighter pilot, Earnshaw had come to South Africa via ICI to work for AECl in Modderfontein. He joined Saiccor in May 1964 as Services Engineer and on 1 January 1966 was appointed Divisional Engineer (woodyard to bleaching). Earnshaw was appointed to the Management Committee in July 1973. Although not technically strong, John was successful by being aggressive and a good manager



*J J Kitshoff, Chairman
1971–1980*



Johan van der Walt



John Earnshaw

with an uncanny ability to select the right man to solve the right problem.

At the same time as Earnshaw was appointed Chief Engineer, two certificated engineers, Ben Curtis and Deon Hughes, were engaged.

The engineering department reorganised as follows:

Frank Rhodes became Divisional Engineer Pulp Finishing (bleaching and drying), with Giorgio Natali as his assistant. Deon Hughes became Divisional Engineer Pulp Preparation (up to bleaching) with Piero Mian as his assistant, and Ben Curtis was Services Engineer (including workshops and training) with Gino Salotto as his assistant.

Frank Rhodes was an engineer in the merchant navy before joining Saiccor at the beginning of 1962 as Services Engineer. In August 1963 he became Mechanical Engineer in charge of the workshops, and in January 1966 Divisional Engineer for the drying plants, workshops and transport. In October 1971 he was appointed Divisional Engineer for Pulp Finishing (bleaching and drying). From 1977 he worked on remodelling the stores. A man with a sharp sense of humour and fun, Frank enjoyed everything he did. He retired at the end of February 1981 and died on 24 December 1997.

Deon Hughes resigned at the end of August 1972 and was replaced by Mike Brull from 15 January 1973. Mike worked tirelessly as Divisional Engineer until 1979 and then on special projects, including being the competent person for all statutory boiler inspections, until he retired on 31 March 1994. Graham Mortimer retired at the end of April 1973, leaving Bruno Trevisan to run the electrical department until Jimmy McFeat was engaged from 1 September 1973. Jimmy was a sound graduate engineer who never allowed anything to disturb his equilibrium. He remained electrical engineer until he retired on 1 October 1989.

The recruitment of artisans was still a major problem and it was agreed to put more emphasis on training artisans. An apprentice training scheme was set up and in July 1973 Ado Magrin was transferred from the mechanical workshop to take charge of apprentice training, which he did until he retired at the end of February 1976.

Attilio Segatto succeeded Magrin as Workshop Superintendent in July 1973. Attilio, a 'Godfather'-type character, soon became known as Mr Modificato because of his penchant for altering equipment that came into the workshop. Most of these modifications worked, and some were extremely innovative. Attilio remained Workshop Superintendent until he retired on 31 March 1989.

During this period, a close working relationship developed with two outside engineering companies that eventually became extensions of Saiccor's engineering department. Durban Engineering was set up by Elio Rossi in Durban to service the paper industry before Saiccor started. He did some workshop work and much



Frank Rhodes



Mike Brull



Jimmy McFeat

construction work for Saiccor. Many of the contractors working at Saiccor today are siblings of Elio Rossi's Durban Engineering (which became ND Engineering), namely EMV, AE, Gordeen and Kenren. The other company was Spare Parts, a machine shop set up by the two highly innovative Davidson brothers, David and Fred. Spare Parts adapted themselves to meet Saiccor's requirements and became largely a Saiccor workshop.

To deal with the processing difficulties experienced with the new plants (No 2 continua rebuild and No 2 bleaching), the process investigation department was set up in May 1971 under Bryan Thomas (who was replaced as Chief Chemist by Attie du Plooy). Two chemical engineers, John Thompson and John Fletcher, were transferred to the department but both resigned soon after. They were replaced in June 1971 by Tony Butler and in May 1972 by me.

In October 1972 Alec Thomson was appointed Assistant to the Managing Director, Don Campbell Cost Accountant and Jimmy McInnes became Works Accountant. Don, a dour Scot and a CA, joined Saiccor on 1 May 1971. In September 1971 he was booked off IOD for injuries sustained at the Saiccor gate when a car driven by his wife knocked him down. Don was appointed Company Secretary on 6 January 1978 and retired at the end of September 1986.

Jimmy McInnes joined Saiccor on 1 September 1955 as an accountant. He was a reserved man who always seemed to have a pencil in his mouth. He surprised everyone when he married one of Saiccor's first nursing sisters, Heidi von Wartburg. A competent accountant, a keen hiker and an avid home beer maker, Jimmy retired on 28 February 1989.

Alec Thomson, who was appointed to the Management Committee in July 1973, found it difficult to work with Tainton and resigned at the end of September 1973.

In September 1971 Dr D Lapping, Saiccor's first medical officer, retired. He was replaced by Dr Ken Wemys.

Kier Murray joined Saiccor as a Buyer on 10 May 1954. On 1 January 1970 he was appointed Chief Purchasing Officer after Stan Gay retired, and held this position until he retired on 30 June 1991. Kier was a man of immaculate appearance with never a hair out of place and a calm manner that could never be ruffled.

Frank Turner was Shipping Manager until he retired on 30 April 1977. He was responsible for all in and outward bound traffic. His



*Ado Magrin (LEFT) and
Attilio Segatto*



Don Campbell



Jimmy McInnes

major challenge, however, was dealing with Tainton who terrified and terrorised him. That he still managed to get all raw materials in, and pulp out (as bales and in mixed cargo ships), with Tainton on his back, is a credit to his tenacity.

Fred Eddleston joined Saiccor in December 1970 as Personnel Manager and a member of the Management Committee.

Because of the supervision required on the new plants (rebuild of No 2 continua and No 2 bleaching), it was agreed to go from five to nine shift superintendents from the beginning of 1972. The process plant was divided into two sections, Pulp Preparation (up to bleaching) and Pulp Finishing (from bleaching onwards), each section with its own superintendent. From 1 January 1972, Eridanio di Marco and Alistair Macbeth were appointed to Pulp Preparation from the laboratory, Piet de Jager and Ernesto Cristin were appointed to Pulp Finishing from the plant. Each new superintendent worked with one of the old ones (Zan, Ferreira, Redding, Moro and Rossetto) who were seniors and had the final decision. Ennio Zan relieved production managers, trained operators and conducted special investigations, hence Fiorenzo Malisan was appointed to Pulp Preparation from 1 February 1974.

Following criticism that Saiccor's effluent was polluting the upper South Coast, Tainton wrote to all known interested and affected parties, and the media, inviting them to an open day at Saiccor on 1 December 1970. 'The purpose of this occasion is to discuss frankly, and openly, the question of effluent and its effects on marine life and humans', the invitation letter read. Some 50 people attended.

In his address at the open day, Tainton said, 'Growing industrialisation and the increase in pollution will make ever-growing inroads on our ecology and environment. Industry and private individuals must combine as a team to combat this. No business organisation however large, can tackle this problem on its own.'

He added that the National Institute for Water Research had been studying the marine life of Umkomaas beaches and the vicinity of the pipeline for five years, and could not find any detrimental effect. Also, before using a solution of lignosulphonates on the roads in the Kruger National Park in the 1960s, the possible effects on animals was tested at the Department of Agriculture at Onderstepoort and found harmless. For example, a sheep was given 50 g doses of pure lignosulphonate powder mixed with its food rations every day for 30 days, without any detrimental effect whatsoever. Tainton went on to say the effluent in the pipeline contained 7 000 ppm dissolved solids, in the seawater above the outlet 150 ppm and on the beach up to 3 ppm.

To demonstrate how harmless the effluent was, he drank a sample 100 times more concentrated than that which could be found on the beach.

The open day was considered a great success by the Board and Management. One newspaper headline read 'Saiccor Silences Critics'.

At the time Tainton made it known that Saiccor was a R23-million enterprise that exported some R24-million a year, a significant contribution to South Africa's foreign exchange earnings. Saiccor employed over 5 000 people in the factory and forests, and paid over R3-million annually in salaries and wages. More than 2 000 t/d of timber and 400 t/d of coal were used.

The hills around Saiccor rang to the cries of 'Bayete!' when Prince Goodwill, then Paramount Chief of the Zulu nation, and an entourage of about 30, including Chief Advisor, Prince Clement and his aunt, Mrs A J Mnguni, visited Magabeni and the factory in August 1972. In a welcome address, Tainton assured the Prince that Saiccor considered their Zulu employees an asset to the company and endeavoured to provide extremely favourable terms of employment. The Prince replied that he was happy to know what the factory was doing in order to uplift the Zulu people; he was pleased to see his people in charge of departments and that they were given incentives to improve themselves, and very pleased also to have seen that people were examined at the factory on the basis of ability and not colour.



Tainton drinking a sample of effluent 100 times more concentrated than that found on the beach, 1970



Prince Goodwill (SECOND FROM THE LEFT), with Paddy Brannigan and Oakley Tainton, on a visit to the Saiccor factory, 1972



Prince Goodwill, Prince Clement, Mrs A J Mnguni and Paddy Brannigan, during a visit by the Paramount Chief of the Zulus to Saiccor in 1972, inspecting a sheet of pulp

Production at Saiccor increased from 594 t/d in 1970 to 725 t/d in 1975 (22 per cent) as a result of consolidating the new plant (rebuilt No 2 continua and No 2 bleaching), ironing out some production bottlenecks and some relatively minor capital expenditure (No 4 flock line and No 14 digester). Of the increased output of 135 t/d, 65 t/d came from No 2 continua, 30 t/d from No 4 flock line and 40 t/d from fine tuning all plants. Over this period significant changes occurred in the supply of machine clothing that improved availability of both pulp machines. The original machine wires were phosphor-bronze, which did not have a long life. The first change was to nylon, but these just kept stretching. In the early 1970s, stainless steel was used, the life was far better, and by the mid-70s synthetic fabrics became available, with an outstanding lifetime of 18 months. The original felts were wool, which lasted a week or two. The first synthetic felts were introduced in late 1972 and were soon used throughout as they lasted up to a year.

No 2 continua was troublesome after the rebuild. Moisture control was difficult, and there were far too many sheet breaks. Bryan Thomas spent much time analysing the cause of the problems, with some success. But one man, who day and night nursed and coaxed this most temperamental of all machines to great heights over the next 20 years, was Production Manager Giuseppe Giovanni Antonio Martelossi, called Bepi. Bepi was born on 12 May 1928 in Gonars and joined SAICI in 1944. He came to Saiccor on 4 October 1954 as a Pipe Fitter. Once the factory was operating, he became an operator in the bleaching plant and then a chargehand.



Bepi Martelossi



Bepi Martelossi with makeshift choir

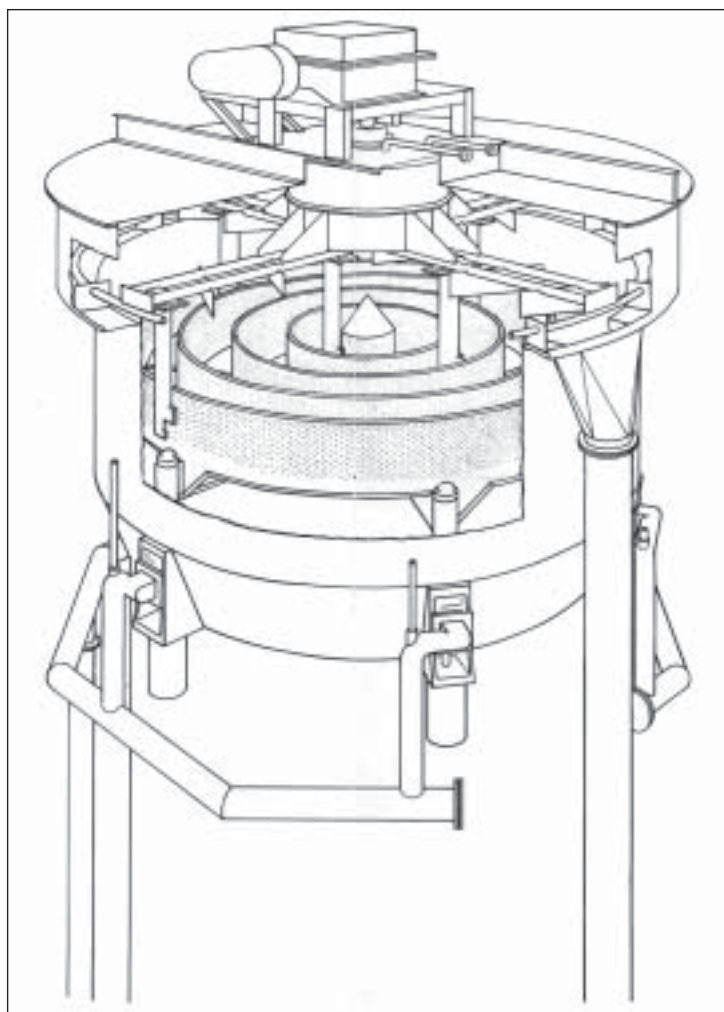
In 1960 he was appointed Shift Superintendent and then joint Production Manager on 1 December 1969. He suffered a stroke in 1990 and another in 1991, and died on 26 May 1991. A proud strong man, dedicated to Saiccor, he was decorated by the Italian Consul in June 1977 for his services to industry and the community. He was blessed with a rich bass voice and loved to sing, particularly with his wife Ilva, and would form and conduct a choir at any gathering.

No 2 continua struggled to 213 t/d in 1971 and then settled at around 225 t/d for the next four years (it reached a peak of 260 t/d in 1979).

No 2 bleaching was the second diffusion bleach plant sold by Kamyr. In this plant pulp at the top of each chemical stage was washed between five concentric screen rings rather than washing filters. The plant required less energy and chemicals than a conventional plant, as the washing was done at high consistency. The plant was designed and developed by Ole Richter of Kamyr, son of Johan, the 'father' of the continuous digester.

Ole, one of the true characters of the pulp and paper industry, was a frequent visitor to Saiccor in the early 1970s. Big and blonde, he was a Viking with the constitution of an ox! He could drink whisky until 4 am and be bright eyed at 7 am ready for a 12-hour working day. His father Johan once quipped: 'Ole, I got the idea for the continuous digester by watching you eat.'

The plant was four-stage: chlorine, caustic soda, chlorine dioxide and hypochlorite. The first stage was at 3 per cent consistency and the others at 10 per cent. To cater for this, the first stage 'diffuser' had a double screen, the bottom one to thicken the pulp from 3 to 10 per cent and the top one to wash the pulp. The first problem experienced after the plant started up on 15 March 1971 proved to be the thickening screen, which could not achieve 10 per cent consistency. Kamyr battled for the first few months to solve the problem, but were forced to slowly raise the chlorination consistency from 3 to 5 per cent. Numerous other problems followed, such as the hydraulics that drove the screen slowly up 150 mm and then rapidly down in 0,5 seconds, the mechanical connections between the screens and the hydraulic cylinders, and the control of the pressure drop across the screens.



Diffuser screens

In the middle of 1972 I was put in charge of No 2 bleaching. It had become necessary to have someone to devote all his time to the plant, and to liaise with Richter and his South African agent, Allan Lofstrand. This was in addition to the normal staff who supervised the bleaching plants: Production Manager Gino Rivetti, his deputy Ennio Zan, Divisional Engineer Frank Rhodes, his assistant Giorgio Natali and Chargehand Bepi Biral.

Gino Rivetti was born on 18 January 1922, in Cervignano del Friuli. He joined SAICI in 1938 and came to Saiccor as a Shift Superintendent on 28 April 1955 to start up the factory. He was appointed Production Manager on 1 March 1960 and Senior Production Manager on 1 August 1970. He retired on 1 December 1984 to run a restaurant in Dundee with his wife and daughter. Gino was a meticulous man who knew the entire factory like the back of his hand, particularly the complicated water system. A fine manager who constantly drove people to perform better – a most serious man inside the factory and a most jovial man outside.

Ennio Zan was born on 20 May 1929 in Vittorio Veneto. He came to Saiccor on 6 August 1954 as a fitter and on 1 August 1963 was transferred to the production department as a Shift Superintendent. From 1972 he deputised for production managers and trained operators. He was appointed Production Manager on 13 January 1981 and retired on 31 December 1992. He died on 28 January 1997. Ennio was the least excitable Italian, a man who combined his training as an artisan with a sound understanding of production. In his spare time he was a keen and excellent fisherman.

Giorgio Natali was born on 8 July 1931 in San Giorgio di Nogaro and came to Saiccor on 24 June 1954 as a fitter. He soon became Chargehand of the ‘capital team’, who from 1958 built all new plant. The capital team was disbanded when the engineering department was reorganised in 1970 and Giorgio became Mechanical Engineering Assistant on 1 October 1970.

On 1 October he became Divisional Engineer of the magnesium plant, a position he held until he retired at the end of December 1992. He died on 17 November 1999. Giorgio was a man who held very firm opinions; he was dedicated to his career and had wide-ranging expertise across all of Saiccor. After he retired he became a very professional model ship builder.

Bepi Biral was born on 3 November 1927 in Vittorio Veneto and came to Saiccor on 6 August 1954 as a fitter. He was appointed a chargehand in Bleaching in 1970, an Assistant Divisional Engineer on 1 September 1982 and Divisional Engineer on 1 June 1987, a position he held until he retired at the end of May 1991. Bepi was a quiet man who devoted his life to his work and his family.

With all the care and attention showered on No 2 bleaching, the plant settled down and towards the end of 1972 was achieving design



Gino Rivetti



Ennio Zan



Giorgio Natali



Bepi Biral

throughputs. However, signs of corrosion on the screens had been observed. In January 1973 metallurgist Prof. Paul Robinson of the University of the Witwatersrand was called in to examine the corrosion. His conclusion was that pitting, crevice and stress corrosion were taking place, particularly in the chlorine and chlorine dioxide stages, and that either the process conditions (chlorides about 1 200 ppm, temperature 50 °C and above) or the material would have to be changed. Neither was possible at the time (it was only some years later that Kamyr developed titanium screens). Corrosion continued, and was continually repaired. Despite the plant running quite steadily, the corrosion became a losing battle. By the middle of 1975 severe corrosion cracking had taken place in the chlorine stage screens. Major repairs were effected but by September 1975 severe cracking again appeared. The decision was taken to cut out the screens and replace them with washing filters. The chlorine screen was cut out immediately and the plant restarted with all stages at low consistency and no washing after the chlorine stage.

A filter building was erected adjacent to the plant and the first washing filter was constructed from a spare Kamyr M57 drum, which was started as a chlorine washer in March 1976. By this time three Impco washers had been located in the US for immediate delivery. After the Impco washers arrived, the diffusion screens were cut out one after the other, approximately one month apart – the M57 washer was changed to the chlorine dioxide stage. Towards the end of 1976 the diffusion bleach plant was gone – the screens were used to make tiles for the washpit floors; strangely the screens from the hypo stage were in perfect condition.

The only capital projects to come on stream before the end of 1975 were No 4 flock line and No 14 digester. No 4 flock line consisted of a 17A attritor and a small Hamworthy furnace which fed some 30 t/d to the pulp from No 2 line, with the combined stream going to No 2 baling press. No 4 flock line was commissioned in February 1973. The Board approved No 14 digester on 6 October 1972, for R340 000, and it started cooking in October 1973.

Commissioning of No 5 flock line started in September 1975, but made little contribution to production until 1976.

Towards the end of 1975 Lord Kearton retired. Although he last visited Saiccor in October 1974, he remained a major driving force at Saiccor until he retired from the Board on 14 November 1975.

After Kearton left, Courtaulds made it known they were no longer going to carry out research on pulping for Saiccor, and further that they were going to look at Saiccor's quality far more critically, which was hardly surprising as by 1976 Saiccor made up approximately 85 per cent of Courtaulds' pulp requirements. Kearton's 'that's the pulp you get, that's the pulp you will use' attitude to the Courtaulds Operations had gone.



Ennio Zan, with a 37,2 kg salmon landed at the Mkomazi River mouth on 29 December 1986



Paddy Brannigan (front left), Norman Boulter (back) and Lord Kearton (right), during the latter's last visit to Saiccor, 1974

As a result of the changed attitude of Courtaulds, Bryan Thomas was appointed Research and Development Manager on 29 January 1976. He had responsibility for research and development, the laboratory, and for ensuring that all pulp sent to Courtaulds met their requirements. Further, Thomas was responsible to the Managing Director rather than the Works Director or Technical Manager, as had previously been the case. However, the Technical Manager still had the responsibility of making the right quality pulp.

Thomas was a chemistry and botany graduate who worked for Kynoch as a field officer for four years before joining Saiccor as a chemist in 1960. In 1963 he was appointed Senior Research Assistant and in 1969 Chief Chemist. In 1971 he became Manager of the Process Investigation Department, and in 1976 R&D Manager. He was appointed to the Management Committee in October 1976 and to the newly defined role of Technical Manager in 1988. He travelled extensively on behalf of the company and built up a very good relationship with customers. In 1987 he delivered a paper to the Dissolving Pulp Conference in Geneva entitled 'The Tree of the Future'. Bryan retired on 31 March 1993 and relocated to Greyton in the Cape. A wildlife enthusiast, he served as Chairman of the local branch of the Wildlife Society, and was instrumental in starting the Empisini Nature Reserve in Umkomaas. Bryan is a very public-spirited individual and has served on every imaginable committee, including the Umkomaas Town Board as Chairman for many years.

Quality was steady throughout the period 1970–1976, and although it may be considered poor by today's standards, it was fairly consistent from year to year, albeit with seasonal variations (high calciums in winter and high silicas in summer).



Bryan Thomas

	SHEET						
Year	KW	Ash ppm	CaO ppm	Si ppm	Resin %	Spots	Cu No.
72	18	1461	978	59	0.30	776	–
73	18	1397	870	82	0.27	1370	2.09
74	17	1476	880	74	0.27	1257	1.97
75	17	1436	759	51	0.29	1302	2.00
76	–	1470	647	60	0.29	1646	–
77	–	1261	601	51	0.25	876	–

			FLOCK			
Year	KW	Ash ppm	CaO ppm	Si ppm	Resin %	Cu No.
72	22	2223	994	66	0.23	–
73	23	2236	946	106	0.23	2.07
74	23	2414	1027	93	0.24	1.97
75	21	2438	986	72	0.25	1.97
76	–	2783	954	121	0.27	–
77	–	2306	798	85	0.23	–

Early in 1976 the Courtaulds' factories started experiencing difficulties processing Saiccor pulp. Bryan Thomas and John More, a Courtaulds chemist who at the time was Saiccor's Technical Services Manager based in Coventry, struggled in vain to find a cause.

Silica and spots had risen but were not considered the cause of the problems being experienced.

The situation at the Courtaulds' factories went from bad to worse and a high-level meeting was called in Coventry in the middle of the year. At the meeting it was agreed that pulp sent to Courtaulds had to meet a specification. Pulp that did not meet this specification would be classed as substandard and could be offered as such to Courtaulds at a discount price. Bryan Thomas was personally charged with ensuring the specification system worked.

The initial specification matched Saiccor's capability, for example the limit on spots was 5 000/m², nevertheless it was stringent enough to classify 5–10 per cent of Saiccor's pulp as substandard. As the quality of Saiccor's pulp improved over the years, the specification was tightened, so that 5–10 per cent substandard became the norm.

Courtaulds submitted large claims to Saiccor in 1976 for pulp that was supposedly unfit for purpose. Saiccor were also asked to keep production at 750 t/d when it was capable of 800 t/d, to ensure quality did not deteriorate.

By 1977 the Courtaulds' factories returned to normal and Saiccor reverted to making maximum production.

With Bryan Thomas' new appointment as R&D Manager, the Process Investigation Department crumbled. I had been appointed Assistant Technical Manager of Pulp Finishing (equivalent to Plant Manager today), Tony Butler left Saiccor in March 1977, and Glynn Evans, a chemical engineer who joined the department on 1 September 1973, was appointed Assistant Technical Manager for Pulp Preparation in April 1976. He transferred to Pulp Finishing in 1979 but resigned at the end of September 1979.



John More



Glynn Evans

There were also changes in the engineering department that had become necessary with the increasing amount of plant and equipment. Pulp Finishing was divided into two engineering sections in March 1975, namely bleaching and drying. Frank Rhodes was Divisional Engineer for bleaching, and Pauline Harding, who was recruited in July 1974 for investigative work, became Divisional Engineer for drying.

Giorgio Natali remained Assistant Engineer for bleaching and flock, and Basilio Segatto, a chargehand machinist, was appointed Assistant Engineer for the pulp machines from 1 March 1975.

Ben Curtis left early in 1976 and two graduate engineers joined on 1 May 1976, Nick Day-Lewis and Mike Howlett. The former immediately became Services Engineer, while the latter moved around the plant before taking over the bleaching division in 1977. Mike was appointed Assistant Chief Engineer on 1 September 1978 but still kept the responsibility for bleaching with Giorgio Taverna as assistant, until Mike Bentley became Divisional Engineer of bleaching on 1 January 1980.

Vic East left at the end of December 1975, and Barry Tokelove took over as Instrument Engineer.

Bruno Trevisan returned to Italy at the end of April 1977 and Bill Hunt was recruited to replace him in July 1977.

In March 1977 two graduates transferred from Courtaulds to Saiccor. Derek Weightman, a chemist, went into the laboratory and Anthony Wykes, a chemical engineer, within a short while became Production Manager of the liquor plant. When Glynn Evans resigned at the end of September 1979 Anthony took over his job, but because he would not transfer to Saiccor's permanent staff, was not officially appointed. Anthony returned to Courtaulds in the middle of 1980.

Attie du Plooy resigned at the end of April 1976, and Geoff Sowler, a chemist who had arrived from Courtaulds in 1974, took over as Chief Chemist.

Saiccor's most active period was probably from 1976 to 1983, when production increased from 725 t/d to 1108 t/d, an increase of 53 per cent fairly evenly spread over the eight years.



Pauline Harding



Anthony Wykes

Year	Tons/Day	Year	Tons/Day
1975	725	1980	893
1976	755	1981	1003
1977	819	1982	1057
1978	857	1983	1108
1979	890		

The increase in production came from four major capital projects and some minor ones. The major capital projects were the 1974 extension scheme, the 1975 extension scheme, computer control of the Digester Plant, and the 1979 extension scheme.

In June 1973 I was transferred to the development department to work on an extension scheme. At that time Ted Beesley was Development Manager, Ciano Ioppo was Project Engineer, and Tom Fitzgerald was Chief Draughtsman heading a team of draughtsmen. Working for Ioppo was Design Draughtsman Alfredo Battiston, a sound engineer (Perito Industriale Meccanico) and a fine draughtsman.

Alfredo was born on 2 March 1927 in Udine and joined Saiccor on 24 June 1954 as a fitter, but was soon working as a design draughtsman. He was appointed Chief Draughtsman in February 1976, a position he held until he retired on 1 March 1992. Alfredo worked on every Saiccor expansion project in its 50-year history, including the 1993–95 Mkomazi Project, where he was brought back from retirement by ND Engineering to work on Nos 21–23 digesters. He is a friendly, cheerful and philosophical man, with many a profound quip. A member of Martelossi's choir, he loves music and wrote the following article for the Saiccor magazine, *The Raypulp Recorder*, in August 1962 (originally written in Italian and translated by Alfredo in 2001).



Alfredo Battiston

TALKING ABOUT MUSIC

The theatre is full of people, a continuous murmur is heard from the audience. As soon as the curtain lifts the baton of the maestro strikes lightly on the music score and silence is established.

The music starts diffusing into the air and the audience concentrates to hear their melody flowing from the various instruments.

A few minutes before the appearance of the maestro the same musicians that now hold the public's attention were busy exercising on their instruments, but the cacophony of sound they produced could not be called music.

So, what is music? Leaving apart any artistic aspect I will try to explain what is intended by music.

The human ear attributes a certain pitch to a sound so we have very low, low, acute, super acute etc. Furthermore the ear judges two sounds of the same pitch if their frequencies are equal or different pitch if their frequencies are different. The more acute sound is the one with the higher frequency. When sounds reach the ear successively, they constitute a melody. When they arrive simultaneously they form harmony or accord.

The impression of the successive or simultaneous hearing of two sounds depends only on their interval. This is music examined purely from the technical point of view.

Any individual with some musical know-how can put together or 'compose some music' but only the fortunate few can or will compose a masterpiece.

In today's world everything moves at music pace: armies march 'unfortunately' at music tempo. People dance to the sound of music, even chickens lay eggs exhorted by music. The same of cows in their sheds who give copious amounts of milk to the tune of Strauss waltzes. We normally are not aware of this.

How many times after having been to a cinema, do we remember some part of the musical soundtrack? In the majority of cases we are not even aware that the music was there all the time during the projection of the film, to underscore the character of the action which takes place on the screen.

The music is as smooth as silk if the scene is of the amorous type, loud and bursting during violent scenes, lugubrious and sobbing during the scary scenes.

A poor musical soundtrack could ruin a good film. And thus it is imperative to commission talented musicians to write the musical score for films.

*Now lets leave this branch of music. Whilst being relatively important this represents only a marginal part of the musical artistic complex so let us talk about the true goddess, **music with a capital 'M'**. Let us go a step backwards and return to the famous orchestra that I mentioned at the beginning. The audience is wrapped up in the music and listens to it in silence. How many members of the audience are really listening to what is being played? A good percentage for sure, but there will always be those who go only because it is fashionable or to look at people or just to pass the time.*

*Unfortunately these people do not realise that they are '**blind**' of hearing. They are like a person, although having good sight refuses to take advantage of it and covers his eyes with a blindfold.*

It happens on occasions that we look at something without really seeing it, and in order to see properly we must focus on the object and pay attention to detail. This is true also of music. We cannot pretend to understand what the composers express with their music only by going to the theatre. We must listen attentively, concentrate, then only will all the beauty of the music be perceived and the music will be like an open book ready to be assimilated and fully appreciated.

Unfortunately today classical music is a thing of the past and only a few composers produce music of some value. With this I am not saying that the various screamers and guitar strummers who are stomping the stages of the world today have no musical talent, on the contrary, the sound emanating from their guitars and much abused vocal cords form the basis of what modern music is all about.

From my point of view there is nothing better than sitting in my favourite chair with soft lights, listening to my favourite recording of classical music. On the other hand if someone thinks there is nothing better than sitting beneath a soft light in the company of girls, listening to modern music, I will not blame him.

In the middle of 1973 the development department was involved with No 2 second screening, a bleached pulp storage tower (No 7), which were part of the 280 000 s.ton (696 t/d) scheme of 1969, and preparation for the 1974 extension scheme.

The 1974 extension scheme was to increase output by 18 000 t/year (50 t/d) to 278 000 t/year (762 t/d). This was considered the first part of a greater programme as some sections of the plant would be expanded to a capacity of 1 000 t/d, which would enable other sections to be expanded at a later stage.

The scheme consisted of:

- A new flock line (No 5) for 130 t/d – specifically designed to overcome flock bale cracking.
- Extension to woodyard – a new Catharge chipper as No 3 to replace No 's 1 and 2 Murco chippers, two water flumes and the provision of outside chip storage to replace the existing log storage.
- A new 70 t/h coal boiler.
- New coal, limestone and sulphur storage and handling.

Those sections of the plant that would have a capacity of 1 000 t/d were woodyard, bleaching and boilers.

The total scheme at a cost of R4,7 million was approved by the Board in October 1973. However, the advent of the Arab oil crisis in October 1973 had a significant impact on Saiccor's costs as the two large flock burners operated on paraffin and the two small ones on heavy fuel oil. Kearton agreed, outside of the Board meetings, to the purchase of a gas producer based on a one-page justification from Tainton. In January 1974 an order was placed with Dorbyl for a 540 therm (54 million Btu/h) cold clean Wellman gas producer. The plant and conversion of the flock burners ended up costing R600 000, but paid for itself in nine months.

Early in 1974 it was agreed to ship pulp in eight bale units and the unitisers were added to the list of projects, which increased the workload well beyond Saiccor's capability. Courtaulds Engineering Limited had been approached in mid-1973 to manage the woodyard, No 9 boiler and the coal, limestone and sulphur storage and handling areas. By 1974 the team under Barry March was well entrenched (Barry March was only involved part time and Peter Topp, his deputy, shouldered most of the burden).

In December 1973 Ted Beesley was released from his normal duties to look at effluent control, and from May 1974 Ciano Ioppo became Projects Manager. At the same time I was put in charge of the installation and commissioning of the projects under Saiccor's control.

A letter of intent for No 9 boiler was sent to Babcocks in August 1973, and civil work started immediately. The boiler was pressure tested in June 1974 and started in September 1974.

The flume on No 3 chipping line was commissioned in November 1974 and with it the first outside chip storage. No 4 chipper with its flume was commissioned in August 1975.

The new sulphur storage and handling was in operation in June 1974 and crushed limestone was in use from April 1975.

No 2 second screening was started up on water in October 1974, but then had to wait for No 7 storage tower in bleaching, for pulp.

The order for No 7 tower (mild steel stainless lined) was placed with Durban Engineering, but was a challenge to them as they had never tackled a tank of this size – 12 m diameter and 35 m high. Construction started in mid January 1974. At first progress was good, but in April half the welders left, and from then on it became impossible to recruit welders for more than a few weeks. Progress became painfully slow, while at the same time Durban Engineering were starting to run into financial difficulties. Broderick Engineering bought a large part of Durban Engineering to keep it going, but then Anglovaal bought Broderick Engineering. They finished No 7 tower but then closed down Durban Engineering. Undaunted, enterprising Elio Rossi started up again as ND Engineering, but it was now a bigger partnership and Elio soon left to start up Durban Engineering Machinery on his own. ND Engineering was left in the hands of Allan Lofstrand, Alberto Carnevale, Mario Domiro and Domenico Casale. Carnevale left after a currency debacle in 1985 and Domiro left a few years later to start his own business. In 1996 ND Engineering was bought by Sunds, who themselves were then bought by Valmet, and ND Engineering is now Metso ND Engineering.

No 7 tower was commissioned in November 1974 followed by No 2 second screening in December 1974. Flock pulp then went through No 2 second screening and the throughput of No 1 second screening was reduced from 720 t/d to 400 t/d for the two pulp machines. The benefit of the buffer capacity of No 7 tower was felt immediately, but the additional screening plant did not reduce silicas as significantly as expected.

Silicas		
	Sheet	Flock
1974	74	93
1975	51	72
1976	60	121

The equipment for No 5 flock line was ordered in October 1973, which included some noteworthy changes from the older plants. The old flock bales had soft ends as a result of baling in one direction, hence a double ram press was sought for the new plant. None could be found,

but Broderick Engineering of Vereeniging agreed to design and build one. A Rietz V-press was used instead of the conventional Sunds twin press, with the advantage that it did not have to be fed with a high density pump. Towler hydraulics, as per the other presses, were specified, but as their delivery times were excessive, a rushed order was placed on Bells Asbestos for Dennison equipment.

The hydraulic system was designed by local Bells' man Bill Roberts, and the electrical control system fell to Bruno Trevisan. Bruno was born on 29 May 1922 in Cervignano and joined Saiccor on 21 February 1954 as an electrician. When the factory started he became Power Station Foreman and in June 1963 he headed the electrical department while Graham Mortimer was Plant Engineer. In January 1966 he was appointed Assistant Electrical Engineer, a position he held until he returned to Italy for family reasons, in April 1977. One of the liveliest of the Italians, Bruno did everything at great speed and with tremendous energy, and always had a ready smile. He was a most competent and knowledgeable electrical engineer.

No 5 flock line started on 14 October 1975. The bales, as expected, had no soft end, and after some modifications the Rietz press gave satisfactory results. However the hydraulics of the baling press were extremely troublesome and required constant attention from mechanical and electrical people. Enoc Baldin became an hydraulic expert after living with this press for four years.

Enoc was born on 24 July 1935 in Torviscosa, and joined Saiccor as a fitter on 6 August 1954. Being one of the youngsters at the time, he became an operator in the digesters for six years after the factory started up. He then returned to his trade, working with Piero Mian. In mid-1974 he transferred to the flock plant to work on the installation of No 5 flock line, where he became a chargehand. He left in March 1979 to go into business in Cape Town with relatives, but returned to Saiccor on 4 March 1986.

Enoc became Assistant Engineer on 1 June 1987 and Divisional Engineer of bleaching on 1 September 1992. He retired on 31 May 1999 as the last of the original Italians (from 1954). Enoc is a friendly, capable and dedicated individual who never shied away from any problem. He was one of only a few Italians to play golf.

Production from No 5 flock reached 100 t/d in 1976 and up to design rate of 130 t/d in 1977.

While commissioning No 5 flock, Saiccor had a visit from Kearton's friend, Lord George Brown, who, in reality, had far greater capitalist leanings than he had liked to portray in former years as Britain's Deputy Prime Minister in Harold Wilson's Labour government.

The unitisers were commissioned in July 1975. The plant included an overhead crane and rail line into the loading bay for pulp despatch by rail, but one month before commissioning Tainton arranged for despatch by road, the way it has been ever since.



Bruno Trevisan



Enoc Baldin



Retirement farewell party for the last of the 'old' Italians, 31 May 1999. From LEFT TO RIGHT: Gary Bowles, Paolo Meneghel (1961), Max de Robillard, Sinclair Stone, Eridanio di Marco (1956), Enoc Baldin (1954), Alan Tubb

The gas producer was commissioned in March 1976 with help from Roberto (Robbie) Pavan and Giorgio Taverna. Robbie was an instrument mechanic who became a draughtsman, but left in July 1976 to join Elio Rossi. Giorgio Taverna joined Saiccor in the beginning of 1976 as a fresh mechanical engineering graduate. After the gas producer was running, he became Assistant Engineer in bleaching. When Nick Day-Lewis left at the end of October 1980, Giorgio was appointed Services Engineer, where his father Mario was one of his staff. He left at the end of January 1981, somewhat disillusioned. He came to see me after having asked Paddy Brannigan for a raise. Paddy had turned his request down, as Giorgio had not 'made enough mistakes'. Needless to say, it was impossible for Giorgio's Italian mind to understand Paddy's Irish logic.

The flock burners were converted to producer gas without incident. Although the chargehands were concerned about carbon monoxide poisoning at the beginning, and wanted a canary in the control room, they soon became complacent about the potential of danger. Fortunately, no mishap ever occurred throughout the gas producer's history.

The 1975 extension scheme was to increase output to 310 000 tons per year (850 t/d) – an extra 32 000 t/a (88 t/d), by consolidating the

1974 extension scheme in regard to improved washing and screening facilities, re-use of water and additional cooking capacity. The major equipment was as follows:

- One sulphur burner (No 4)
- Two digesters (Nos 15 and 16)
- Duplication of chip charging facilities
- Two washpits (Nos 6 and 7)
- Two low density towers
- Three pressure knotters
- Five pressure screens
- Two water storage tanks

The total cost was R3,9 million.

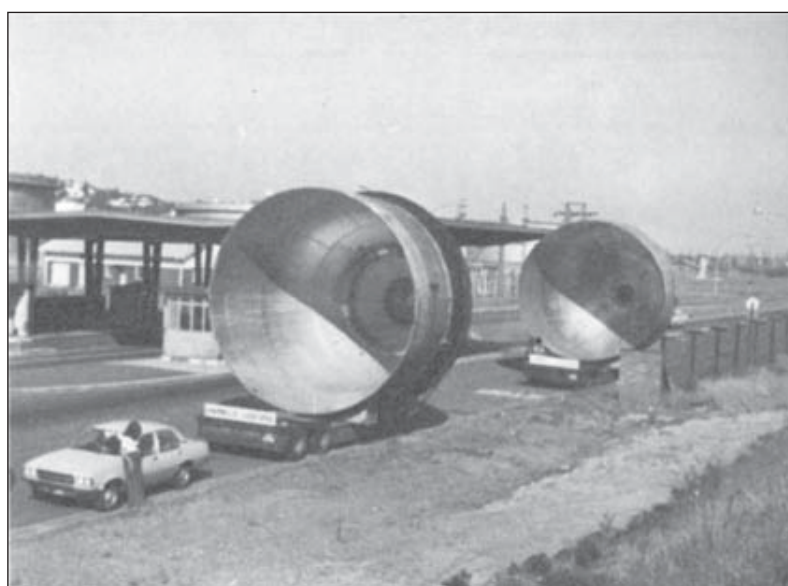
The cost benefit analysis was as follows (estimated in the fourth quarter of 1974):

\$1,49 = R1,00

R1,67 = £1,00

	R'Million
Sales 32 000 t at R116/t ex works (Saiccor's price \$173/t)	3 712
Less variable cost at R58,5/t	1 872
Marginal profit	1 840
Less depreciation x R3,9 million	0 273
	1 567
Additional R&M, 4 % x R3,9 million	0 157
Net profit	1 410
Return on Capital: 36 %	

When the order for two digesters was placed with Avesta in October 1974 they offered, at the same price, three digesters complete with circulation pipes and auxiliary equipment that at the time were still operating at NCB, Valvik in Sweden. Saiccor took up the offer, the digesters were cut in half (circumferentially) and shipped to Durban as deck cargo. As the vessels were 5,9 m in diameter, a route to Saiccor had to be selected with bridges that had 7 m clearance. The route became Durban harbour – Isipingo – Eston – Richmond – Ixopo – Highflats – Ifafa Beach – Umkomaas, a distance of some 250 km. It took six months of



The transportation of the three digesters from Durban harbour to Saiccor in 1975 was a slow and tortuous process

negotiations to get permission to transport the vessels, and when it was granted, travel was only permitted on Sundays at 15 km/h.

After a long, tortuous and eventful journey, the first digester arrived at Saiccor in May 1975. The two halves were rejoined with a 1,2 m extension ring to bring the volume to 285 cubic metres, the same as the other digesters. Nos 15 and 16 were commissioned in October 1975 and No 17 in November.

The remainder of the extension scheme was completed on time, with the exception of the Simon Carves sulphur burner (No 4), which was severely delayed and only commissioned in May 1979, when the Lurgi burners were laid to rest. The pressure knotters, low density storage towers, and Nos 6 and 7 washpits were commissioned in February 1976.

The pressure screens (centrisorters), which at that stage were installed on top of Nos 1-5 washpits, were commissioned in June 1976.

Glynn Evans was in charge of the commissioning of the 1975 scheme, which went well, especially the centrisorters that operated perfectly from the first push of a button. However, by September 1976 the epoxy lining on Nos 6 and 7 washpits proved unsatisfactory and had to be replaced with tiles. The pressure knotters proved difficult to operate and required several modifications, after which they operated satisfactorily but were always prone to severe blockages from certain wattle cooks. It was never fully established what caused the blockage although a high viscosity wattle cook was a prerequisite.

Production Manager Marino Cudin needed all his experience and talent to make the new plants work. Marino was born on 19 May 1929 in Torviscosa and joined SAICI at 14 in 1944. He transferred to Courtaulds in Coventry for a year, engaged on the flock experiment, before joining Saiccor on 20 May 1958 to work on the flock pilot plant. He remained in the flock plant until he was promoted to Shift Superintendent in August 1961. On 1 August 1970 Marino was promoted to Production Manager of the liquor plant, digesters and first screening, a position he held until he retired on 1 June 1990. Marino was a highly intelligent individual, who always had new ideas and innovations. He served as President of the Italian Club for a number of years.

In October 1978 the Board approved the 'Computer Control of the Digester Plant' for R1 million, on the basis that 'probably the most important aspect of final pulp quality is uniformity, and with the increased complexity and frequency of cooking batches, the necessity for better co-ordination and supervision has increased and more sophisticated techniques must be adopted to maintain good control.' (Board Paper, October 1978)



Marino Cudin

In January 1979 I was moved to Pulp Preparation and put in charge of the computer project. The aims of the project were twofold, to improve the operation of the digester plant and also to improve the viscosity variation from digesters.

It is difficult to imagine today what the digester operation was like in 1979; cooks were done at a fixed maximum temperature, and as a consequence cook times varied from six to nine hours. It was common for three digesters to need gas release at the same time (two would have to wait and overcook). There were no radios at the beginning of 1979, and all instructions were given verbally in the second floor control room, which at any time resembled Grand Central Station, with people constantly coming and going. Digesters operated at three different pressures – 6,0 bar (Nos 1–5); 6,6 bar (Nos 6–8) and 10,4 bar (Nos 9–17), wattle could only be cooked in Nos 9–17, there were restrictions on some digesters going to some washpits, and all digester operations were manual. With so many operations having to be constantly performed, digesters had become virtually unmanageable. In fact in 1978 Rivetti and Cudin were put on 12-hour shifts to make 30 cooks/day with 17 digesters (1,76 cooks/day per digester; today with computer control 2,56 is comfortable). Added to the operational problems, the control of digester viscosities, not surprisingly, was poor, with a coefficient of variance (COV) of about 25.

These were the problems it was hoped would be addressed by a computer. Although computer control of cooking for kraft paper pulp by the H-factor was well known at the time, there was no known cooking model for dissolving pulp. Work started on the development of a cooking model at Saiccor in 1978. Adrian Bowling and Torgny Oehgren undertook the fundamental work on the model development, starting from an S-factor proposal from a Swedish theoretician.

Adrian Bowling, a young Australian chemical engineer, joined Saiccor in March 1977, replacing Tony Butler. He did some investigative work before starting on the digester model, which then occupied all his time until he left Saiccor in 1980.

Torgny Oehgren, a Swedish chemist born on 12 September 1921, spent virtually his entire professional life in the pulp and paper industry. By the early 1970s he was General Manager of MoDo's Domsjö mill in northern Sweden, where he had worked for many years. Then one day in the mid-1970s he disappeared. He ran away from MoDo, and his family, and took a job as a nurse in a mental hospital in southern Sweden.

Torgny was discovered in the hospital by pulp and paper consultants IVL, who persuaded him to join their company, and sent him to Saiccor in 1977 to follow up some water-saving proposals they had made in 1973. Torgny loved the country and had no



Torgny Oehgren

hesitation accepting a job offered to him by Paddy Brannigan. He joined Saiccor on 1 May 1978. With his extensive knowledge and broad experience he made a significant contribution to Saiccor's technical achievements. In an address to a small dinner party to celebrate his sixtieth birthday in 1981, Torgny said 'I came to Saiccor thinking it was the twilight of my career, instead it has proved to be the highlight of my career.' He became very much part of the social life of Umkomaas, although most of his spare time was spent running, often with his colleague John Thubron. He ran the Comrades every year from about 1980 and still managed 8 hours and 30 minutes at the age of 63 in 1985; he also took part in the Two Oceans a few times. Torgny died on 16 February 1986 after overexerting himself in a marathon.

Towards the end of 1978 a cooking model had been developed where the degree of cooking was dependent on the heat input and the chemical composition of the cooking liquor (the higher the sulphur dioxide concentration, the lower the heat input and the higher the calcium concentration, the higher the heat input). More importantly the heat input, or S-factor, was a function of time and temperature, where a higher heat input could be obtained in the same time by raising the temperature. This led to constant cook times but variable cooking temperatures.

By the end of 1978 the model was running on a mini-computer in parallel with the digesters. In January 1979 cooks were being stopped on one digester by the mini computer, and by April four digesters were on the computer. By June 1979 the model was producing good enough results to be able to place an order with Accuray for the computer control of the digester plant. The Saiccor model was built into the Accuray computer, which would then control the temperature profile to end every cook in a fixed time.

The Accuray computer was installed in October 1979 and by February 1980 was controlling eight digesters. All the other digesters followed a month later. Although there were numerous teething problems, which were ably dealt with by Accuray's local technician Harry Fox, the system soon started producing results. Constant cook times transformed the operation of the digester plant – up to 36 cooks/day from 17 digesters was soon achieved. The improvements to viscosities were slower to achieve, but after much attention to the detail of every facet of the operation, COVs slowly came down to 17.

The men who operated the computer, and who thereby ensured its acceptance and success, were the cook controllers. Although this was their first contact with a computer, they never shied away from it, nor did they ever blame it for things that went wrong, and they were all middle-aged men who had spent at least 20 years operating

manually. Israel Shezi, David Magubane, Bernard Mzotho, Maxwell Kweyema and Stanley Hlungwane made a very positive contribution to the success of the computer control of digesters.

In mid-1978 work started on a proposal to install a new 4,8 m pulp machine. This developed into the 975 t/d Expansion Scheme (100 t/d above the operating rate at the time). The scheme included a '500 t/d' machine (No 3 continua) (500 t in 24 hours to average 450 t/d), a rearranged first screening where the centriscreens would follow Nos 1–3 Repolas and would in turn be followed by two new washers (Nos 5 and 6 Repolas) and then a new high density storage tower (No 8), which would feed the two bleaching plants. No 1 continua was to be shut down and flock output reduced. By February 1979 all the equipment required had been established and the 975 t/d expansion scheme was approved by the Board in March 1979 for R19,9 million. It was agreed by the Board that the scheme would increase production by 100 t/d as production at the time was already 885 t/d.

Orders for the machine and dryer were placed with KMW and Flakt in March 1979, while all other equipment was ordered by May. For the first time the entire installation, with the exception of No 8 tower, was done by one contractor, Murray and Roberts, including mechanical, electrical, instruments and civils, with Ian Colepepper their overall project co-ordinator. Construction started in June 1979. The only pre-commissioning training deemed necessary was to send Bepi Martelossi and Basilio Segatto to Monsteras in Sweden for two weeks to see a similar machine in operation. Paddy Brannigan managed the project for Saiccor with Ciano Ioppo at the 'coalface'. Norman Boulter took charge of the commissioning of the machine and I took charge of first screening.

Commissioning of No 3 continua started in September 1980 with two teams, the day shift under Martelossi and the night shift under Martin Ferreira. Both teams reported to Norman Boulter. From the mechanical side, Basilio Segatto covered 24 hours. Basilio was born on 10 September 1930 in Torviscosa and came to Saiccor on 24 April 1954 as a machinist. He reached the position of Chargehand Turner before being transferred to the plant on 1 March 1975 as Assistant Divisional Engineer Pulp Drying. He was appointed Divisional Engineer Pulp Drying on 1 April 1986, a position he held until he retired at the end of December 1992. He was a firm, strong character, a very meticulous man, who always thought in terms of fractions of millimeters. One of his fine achievements was completely redesigning the Lamb cutter at the end of No 3 continua to make it work on Saiccor pulp.

There were numerous problems starting up No 3 continua, the most persistent being with the wire tying machines, and for the first



Basilio Segatto

four months production from the machine only averaged 300–350 t/d. However, from the beginning of 1981 design capacity of 450 t/d average was achieved, although there were members of the Board who could not appreciate that 500 t in 24 hours would average 450 t/d. Total production in 1981 was 1 003 t/d, which exceeded the proposals as set out in the expansion scheme. No 1 machine was shut down in May 1981 but was restarted in October 1981, and instead flock output was reduced from about 470 t/d to 250 t/d.

In first screening the centrisorters were moved from the washpit floor to their new building, and restarted in October 1980. No 8 storage tower was built by ND Engineering and was the first storage tower in solid stainless steel – it was also the biggest at 4 500 m³, 12 m in diameter 45 m high. No 8 tower was commissioned in February 1981 together with the two Rauma Repola J washers (Nos 5 and 6 Repolas) and the Rauma 1 000 t/d high density pump. There were problems with the hydraulic drives on the washers and capacity problems with the pump. In those days it took a major effort to persuade the Finns they had obligations for the performance of their equipment. When they finally sent someone to site, he could hardly speak English. Nevertheless, the problems were solved (the hydraulic drive was upgraded), and later dealings with the Finns have shown a radically changed attitude, being totally customer-focused.

First screening operators Ephraim Magubane, Milton Dlamini, Moffat Ndlovu, Alfred Dlamini and Victor Sibisi played leading roles in commissioning the new plant. Ephraim was one of three Magubane brothers, each of whom gave long service to Saiccor, and contributed to its success.

Moses Magubane joined Saiccor on 19 December 1955 as an office messenger. He was promoted to Senior Personnel Clerk in 1963 and Personnel Officer in 1976. He retired on 31 March 1994 after 38 years service, to pursue a political career. From 1976, Moses had responsibility for black employment and well-being, and was always very politically involved.

David Magubane joined Saiccor on 5 February 1957 as a labourer, in 1965 he was promoted to Shift Analyst in the laboratory and in 1974 to *Induna* in the digesters. He became a cook controller in 1979, a chargehand in 1993, and retired early to his farm on 31 May 1999 after 42 years service. A man with a ready smile, David is remembered for quietly doing what was required.

Ephraim Magubane joined Saiccor on 8 February 1963 as an artisan's assistant in the electrical department. In 1968 he became an assistant operator in the liquor plant, slowly progressing to an operator. In 1985 he moved to the magnesium plant, becoming Senior Operator in 1988. In 1994 he was appointed Shift Superintendent, first in the Mkomazi plant and then Pulp Preparation, his current



Moses Magubane



David Magubane



Ephraim Magubane

position. Ephraim has been a very competent operator, a cheerful man who is almost immune to stress.

Moffat Ndlovu and Maxwell Kweyema (digester Cook Controller) died tragically in a motor vehicle accident in August 1982.

Apart from the four major capital projects that came on stream between 1976 and 1983, there were a number of minor ones that kept production from each part of the factory in balance. These included:

- York chilling plant for liquor making (secondhand from Aintree), commissioned December 1977.
- Digester circulation from the middle of the digester to the top and bottom modified to from the bottom to the top, from August 1978.
- Second low pressure gas release system from digesters, commissioned January 1979.
- Superfloc used in the waterworks, November 1979.
- Pressure tank No 14 in SO₂ Recovery commissioned in November 1979. This scheme, devised by Anthony Wykes, converted SO₂ Recovery from a batch to a continuous process.
- Side relief introduced to digester operation, from March 1980.
- Second Kirsch chilling plant for liquor making commissioned in June 1980.
- First mild steel digester (No 5) being rebuilt in stainless steel, July 1980.
- No 3 digester rebuilt, August 1981.
- No 2 digester rebuilt, June 1982.
- New effluent channel constructed in the factory, July 1982.
- Berol added to final pulp, December 1982.
- No 4 digester rebuilt December 1982.
- Effluent channel, from the factory to the pumphouse (3,5 km), lined with HDPE (high density polyethylene), February to October 1983.
- Automatic wrapper for No 3 continua, April 1983.
- No 1 digester rebuilt, September 1983.

Although the Mkomazi River flow had on a number of occasions since 1954 dropped quite low in winter, the poor summer rains of 1979/80 and the subsequent sharp drop in the river flow was a major concern. In June 1980 a 10 m sheet pile was placed into the river bed at the water intake – the rock level at the intake is some 30 m below the surface of the bed. A 2 m earth weir was built behind the sheet pile to impound some 250 000 m³ of water. A small amount of water from the dam had to be used to keep the factory at full production. However, good rains on 8 September 1980 broke the weir but restored the river flow to normal.

In October 1980 a leak was detected on the landline of the effluent pipe. Further leaks were detected in November. Although the leaks were temporarily sealed by pumping wood chips with the effluent,

it was established that after 13 years solids in the effluent had eroded the rubber lining, and thus being exposed to effluent the mild steel pipeline had corroded. After much debate and discussion, it was decided to insert an HDPE pipe (plastic), called Phillips Driscopipe, into the mild steel sea line and to replace the landline with HDPE pipe. This apparently was common practice in the USA, and would be guaranteed for 25 years.

The HDPE pipe was ordered in April 1981. The landline was replaced in an 11-hour factory shutdown on 29 September 1981 and the sea line was sleeved in a 34-hour shutdown on 26 October 1981. The effluent line was again operating without leaks. Everyone was happy, particularly the Board, who regarded the relining as an outstanding achievement (at a cost of R3,4 million). Once the sea line was relined, the diffusers over the last 300 m were blocked off, forcing all the effluent out of the end of the pipe, which increased the visibility of the effluent plume from the shore.

By 1980 Saiccor's production started to exceed Courtaulds' requirements. After lengthy debate, Courtaulds decided it would be preferable to sell Saiccor's surplus production outside the Courtaulds group, rather than reduce Saiccor's production. External sales started in 1981 and by 1982 made up 27 per cent of the total Saiccor sales of 384 198 t at a price of R386 against the Courtaulds price of R277. The marketing effort was a joint venture between Saiccor and Courtaulds Pulp Trading (CPT), with the objective of replacing the declining Courtaulds demand for pulp with external sales. Courtaulds Pulp Trading was established in April 1982 as an expansion of the Coventry based Courtaulds' company Springwood Cellulose (formed 20 years earlier to market Usutu pulp). CPT would sell pulp from both Saiccor and Usutu. The company consisted of 18 people, headed by Jim Walmisley (who became a director of Saiccor in 1986) and included Marcello Malpiedi.

Early in 1981 discussions started to take place in Saiccor on the next expansion project. At that time bleaching was the bottleneck. With both bleaching plants operating at well above design capacity, a new bleach plant was considered essential for any expansion. However, increasing the bleaching capacity would create bottlenecks in virtually every other plant. It became clear that the next expansion would mean a new mill, and if a new mill was to be built, it should be magnesium based rather than calcium based, for economic as well as environmental reasons. So was born the concept of the 500 t/d magnesium plant expansion, from woodyard to pulp store, that was to serve as the thrust of Saiccor's development for the next 14 years. In May 1981 Mike Howlett and I were sent to Sweden and Austria to explore the requirements for a new magnesium-based pulp plant.

Mike Howlett was born in England on 17 May 1939 and came to Saiccor as a graduate mechanical engineer on 1 May 1976. He became Divisional Engineer of bleaching at the beginning of 1977 and was promoted to Assistant Chief Engineer on 1 September 1978. In 1987 he was appointed Development Engineer, a position he still holds. Mike is a highly intelligent individual with a sound understanding of the fundamentals of science and engineering. He is an 'ideas' man who has become an authority on energy and control, although it is difficult for the common man to follow all his thinking.

On our trip to Sweden and Austria we visited magnesium pulp mills at Stromsbruk, Lenzing and Leykam. We had lengthy discussions with recovery specialists Gotaverken and Wagner-Biro, and pulp and paper consultants IVL (later to become AF-IPK). On our return, a project team was formed to design a 500 t/d magnesium plant. The team comprised Brannigan, Boulter, Thomas, Oehgren, Ioppo, Howlett and myself. In addition various specialists were brought in when their plants were debated, including Rivetti, Martelossi, Cudin, Davey, Mian, Natali and B Segatto.

The 500 t/d magnesium plant expansion (to make either dissolving or paper pulp), to bring Saiccor's production to 1 500 t/d, was put to the Board in March 1982.

US\$ 1,06 = R1,00 = Skr 5,69

Capital Cost	R'million
Plant	140
Timberlands	30
	170
Additional Profit	54
ROI	30 %

In view of the high capital cost of the proposal, the Board asked that consultants be engaged to approve the design and costs, and a different consultant to review the market. Sandwell were engaged to approve the design (the first time this had ever happened at Saiccor), and Jakko Poyri to review the market. Both consultants' reports were positive (the market report was 'a small positive yes') and the proposal was resubmitted to the October 1982 Board. The IDC were in favour, but Courtaulds (Dr Wooding), could not approve the proposal because of the declining world market and 'the impact of R170 million (£100 million) on the financial structure of the Courtaulds group.' The Saiccor members of the Board, particularly Norman Boulter, were livid.



Mike Howlett

The first strike by all the black employees of Saiccor occurred between 6 and 10 November 1981. The issue was national and political. Countrywide, blacks were demanding the return of their pension fund contributions on the basis of the rumour circulating at the time that the government was about to take the money. The white employees kept the factory running at a lower throughput, until the blacks returned after being told they could withdraw from the pension fund and collect their contribution.

Totally unexpectedly, early in 1982, Paddy Brannigan announced he would be retiring at the end of June 1982. The reason he gave was that he needed to be young enough to start his new venture of running his chicken farm in Highflats, and that running a chicken farm was not that different from running a pulp mill.

Very shortly after Brannigan's announcement, it was made known that Peter Dell, from Courtaulds, had been appointed Managing Director of Saiccor, from 1 April 1982. Because of the close proximity of the two announcements, it was never certain whether Dell had been appointed because Brannigan was retiring, or whether Brannigan retired because of Dell's appointment. Paddy's parting comment was that 'Saiccor's future lies in the magnesium plant'.

Although Dell was appointed from 1 April 1982, he really did not have a job until Oakley Tainton, who was still Chairman, retired at the end of March 1983.

After Brannigan's retirement, Norman Boulter was appointed Works Director from 1 July 1982, and I was appointed Technical Manager (in charge of production). Mike Bentley was appointed Assistant Technical Manager from 1 January 1983.

Nick Day-Lewis resigned as Services Engineer in October 1980 and Giorgio Taverna took over, but he resigned in January 1981. Lionel Davies, who joined Saiccor on 1 December 1980, was appointed to the position.

Anthony Wykes returned to Courtaulds at the end of June 1980 and was replaced as Assistant Technical Manager by Geoff Sowler, who in turn was replaced by Derek Weightman as Chief Chemist.

In June 1982 John Davey was transferred to the flock plant and Ennio Zan moved to the woodyard. John was appointed Production Manager of the flock plant on 12 July 1983, a position he held until he retired on 1 March 1992.

Tony Butler returned to Saiccor as Process Engineer on 6 September 1982 and became Assistant Projects Manager on 2 August 1983.

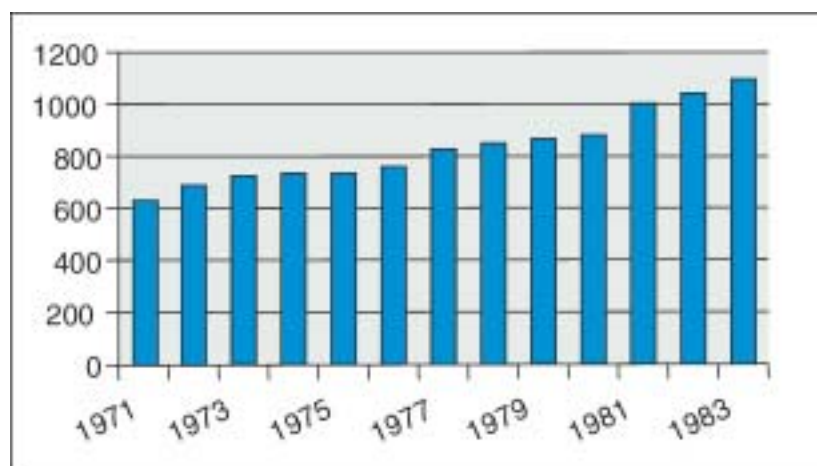
In December 1978 Tainton fired Fred Eddleston for allegedly barging into his office without an appointment. Tainton issued a statement announcing that 'The position of Personnel Manager has become redundant and Mr Eddleston is leaving the company.' Jim McCabe, as Personnel Officer, then ran the department with Bruce Peddie and Moses Magubane until Oakley weakened on 1 February 1982 and hired Andy Porter as Personnel Manager.

Oakley Tainton retired gracefully at the end of March 1983 – although he remained on the Saiccor Board for another two years – after a farewell lunch with the Board, Management Committee, and Gino della Martina, at the Lido. He had been with Saiccor from its inception in 1951, some 32 years, the last 12½ years as the ‘boss’. Despite his dictatorial management style and unfriendly manner (or because of it), Saiccor prospered under his leadership. Production went from 594 t/d in 1970 to 1108 t/d in 1983, an 87 per cent increase. As a result of higher production, operating profits grew from R7,4 million in 1970 to R37,0 million in 1983, dividends rose from 37½ per cent of share capital in 1972 to 90 per cent of share capital in 1981 (R8,7 million of the R37 million profit in 1983 came from the forests, despite timber costing R27/t). Sales outside the Courtaulds group had grown to almost 30 per cent of Saiccor’s production, where a far better price was received, even though Saiccor sold at a significant discount to win market share. From 1976 there was a slight improvement in quality although more importantly, a good technical dialogue between Courtaulds and Saiccor was established, and by 1983 the Courtaulds factories were operating with leaner ‘recipes’. The focus of attention with regard to quality was levels of impurities, and their variability.

	SHEET PULP				
	Si ppm	CaO ppm	Ash ppm	Resin %	Spots /m ²
1976	60	647	1470	0.29	1646
1977	51	601	1261	0.25	876
1978	60	524	1209	0.26	657
1980	86*	433	1335	0.21	575
1981	74	411	1470	0.21	721
1982	66	451	940**	0.21	572
1983	79	457	825	0.17	734

*the rise in silica in 1980 was the result of No 2 second screening having to operate at higher consistencies to feed No 3 continua.

** Total ash less sodium



Production t/d during the Tainton era, 1971–1983

The Dell Period (1983 –1985)

Peter Lawson Dell was a civil engineer who worked for the military, largely abroad, before joining Courtaulds. He was appointed Managing Director of Saiccor on 1 April 1982, but only took control of the company a year later when Oakley Tainton retired.

Peter was a gentleman to the core, with a somewhat military bearing, who won the respect of everyone he dealt with. He was transferred back to Courtaulds in January 1986.



*Peter Lawson Dell, Managing Director
1983–1985*

Norman Wooding (PhD chemistry), then Deputy Chairman of Courtaulds, became Chairman of Saiccor on 1 April 1983, having been on the Saiccor Board since March 1977.

From 1 April 1983 the Board comprised: N S Wooding* (Chairman), N Boulter*, P L Dell*, M Macdonald, O W Tainton, J L van der Walt, P J van Rooy, J R Wrangham*. (*British)

Over this period changes to the Board were:

S Huismans appointed November 1983

O W Tainton resigned March 1985

J R Wrangham resigned March 1985

G B Turner appointed March 1985

P L Dell resigned December 1985

N S Wooding resigned December 1985

Significant changes had occurred in Courtaulds that were to have a strong influence on Saiccor. Sir Arthur Knight had succeeded Lord Kearton as Chairman of Courtaulds and to a large extent he followed the same expansionist policies as Kearton. In 1979, at the age of 43, Christopher Hogg took over from Knight as Chairman. Hogg, after majoring in English at Oxford, went to the Harvard Business School and then spent a further year teaching at IMEDE, a business school in Lausanne.

For the next five years he worked for merchant bankers in the City of London before joining Courtaulds in 1968 as a director of International Paints. Hogg's policy, simply put, was that each business unit of the Courtaulds conglomerate had to make a profit or close down. Within 18 months he shed 21 000 jobs, almost a quarter of the UK workforce. Courtaulds was becoming leaner and meaner, but it took six years for profits to improve. Hogg was knighted in 1985.

While Tainton was at Saiccor the new policies at Courtaulds did not filter through to Saiccor. However both Peter Dell and his successor, Gordon Campbell, saw their own career progression in Courtaulds, and both were keen to see Saiccor more like Courtaulds. For instance, in the Tainton era the budgeting process was simple. Tainton set the production figure, it was not debatable, it was a given. We made 1 050 t/d in 1982 and Tainton's figure for 1983 was 1 100 t/d with no expansion projects.

The Technical Manager forecast the raw material usages, and Tainton negotiated prices but kept them secret. The accountants determined R&M and labour costs from the previous years actual inflated by the CPI, then put the budget together and sent it to the directors. Proposals for capital expenditure were submitted to the March or October Board meetings. There was virtually no further discussion on budgets.



*Dr Norman Wooding,
Chairman of Saiccor
1983–1986*



Sir Christopher Hogg

The process started to change in the Dell era and very much more so in the Campbell era. In 1982 the operating statement was five pages, by 1987 it had risen to 10, today it is 40!

From April 1983, Saiccor embarked on a slow process of change.

Although the new policies at Courtaulds had not filtered through to Saiccor straight away, there was an immediate and lasting impact. Saiccor had always sold its pulp to Woodcourt (a Courtaulds company registered in the Channel Islands), who in turn sold it to the Courtaulds' factories. In line with Hogg's new policies, Woodcourt increased the pulp price to a market-related value, and Woodcourt kept the mark-up. The Courtaulds' factories were angry with Saiccor for increasing prices. They appealed to be allowed to buy pulp on the open market but were told they could not. These factories became disillusioned and demotivated, and retaliated by complaining about the quality of Saiccor pulp (trash levels).

In 1983 Norman Boulter was Works Director, and I was Technical Manager. The other members of the Management Committee were John Earnshaw (Chief Engineer), Bryan Thomas (R&D Manager), Don Campbell (Company Secretary and Finance Manager), Andy Porter (Personnel Manager) and Robin Pollock, Secretary to the Management Committee.

Geoff Sowler and Mike Bentley were Assistant Technical Managers. Mike Howlett was Plant Engineer, Bob Kilmartin an Assistant Electrical Engineer replaced Pauline Harding as Divisional Engineer of Drying, when she resigned at the end of May 1980. Owen Spence, a newly recruited certificated engineer was Divisional Engineer of Bleaching, Piero Mian was Divisional Engineer of Pulp Preparation, Lionel Davies was Services Engineer, Gino della Martina was Civil Engineer and Attilio Segatto was Workshop Engineer. Ciano Ioppo was Projects Manager, Alfredo Battiston Chief Draughtsman. Derek Weightman was Chief Chemist, Jimmy McInnes Senior Accountant, Kier Murray Chief Purchasing Officer, Alan Almond, who started at Saiccor in November 1975 when Frank Turner left, was Shipping Manager, and Mike McCann was the Medical Officer.

Andrew Carr, at the time based at Saiccor, looked after timber procurement and logistics as Assistant to the Managing Director. Andrew, who basically was a farmer, joined the Saiccor group through Saligna Forestry after being with Natal Tanning Extract Company for three years. He was transferred to Umkomaas in 1980 as Assistant to the Managing Director and General Manager of Saligna Forestry (until 1985). In 1985 he became Commercial Manager of Saiccor and a member of the Management Committee, responsible for all purchasing, shipping and local marketing. In 1990 he was transferred from Saiccor to look after shipping for the Sappi group, launching a successful career with Sappi. He had a stint in the USA before becoming Managing Director of Sappi Forests and then Managing



Norman Boulter



Andrew Carr

Director of Sappi Kraft, his present position. Andrew was a tough, uncompromising manager, brought up in the Saiccor school.

Production of 1 108 t/d in 1983 was significantly above the 1982 level of 1 057 t/d, and 1984 saw a further small increase to 1 111 t/d. In 1985 production was 1 076 t/d, and this was the first time in Saiccor's 30-year operating history where production for the year was lower than the previous year, largely because of the commissioning of the magnesium plant.

Quality over the period was steady, showing some improvement in calcium levels as a result of the water softening plant installed in August 1983.

	SHEET PULP				
	Si ppm	CaO ppm	Ash ppm	Resin %	Spots /m ²
1982	66	451	940	0.21	572
1983	79	457	825	0.17	734
1984	86	269	705	0.15	738
1985	84	189	667	0.15	840

In early 1983 Bruce Townsend arrived at Saiccor as a diplomatic facilitator to break the impasse that had developed between Saiccor and Courtaulds over the magnesium plant. Bruce, an affable Research Chemical Engineer, had a long association with Saiccor and Usutu dating back to the development of the flock process; he also had everyone's respect. Bruce made it clear that Courtaulds were never going to agree to a capital expenditure of £100 million. It transpired that the expenditure would need to be less than £50 million. That was half the plant. Norman Boulter, Bruce Townsend and I looked at a proposal for only the magnesium recovery plant, in other words the 1982 proposal minus the bleach plant and pulp machine. To bring the capital cost below £50 million, it was also necessary to remove from the original proposal a digester, a blow tank, the blending tower, a thick liquor tank, a laboratory and offices.

The capital cost was then acceptable, but the savings in chemicals and energy would not pay for the plant. Another 100 t/d of production was required to make the project viable, and this was assumed to be achievable by changing the pumps in No 2 bleaching, the bottleneck at that time. Thus a proposal was put together for a magnesium recovery plant costing R70 million that would raise Saiccor's production to 1200 t/d. The proposal was put to the March 1983 Board, but again it was not approved.

In June 1983 Courtaulds' Chairman Christopher Hogg visited Saiccor for a day, and spent an afternoon with me to find out about our expansion proposal. Although he professed to be non-technical,

he was most attentive down to the minutest detail. He told me he had seen millions of pounds wasted in the last few years. In the evening Hogg had discussions with about 20 senior Saiccor managers on political and social issues. In late July 1983, presumably after a Courtaulds Board meeting, Saiccor was told they could go ahead with their R70 million project.

The R70 million magnesium plant was the largest project undertaken by Saiccor (and Courtaulds) since Saiccor was built in 1954. This created some anxiety in the Boards of the two companies.

A project team was set up on 2 August 1983 to manage the project. I was given responsibility for the overall management of the project, including commissioning. Ciano Ioppo was to undertake all Saiccor design work, plus ordering and receiving goods. Mike Howlett was put in charge of supervision of the boiler, recovery plant, power generation plant, steam and services. Bill Hunt was responsible for the design and supervision of electrical reticulation and equipment, and Gino della Martina (assisted by Luigi Mazzaro) was to supervise all civil work.

By the end of August the team was increased to include Giorgio Natali and Piero Mian (transferred to the project on 4 February 1985) for mechanical supervision, Martin Ferreira and Torgny Oehgren as senior process engineers, Gray Smith for design and supervision of instrumentation, Mike Brull for site management, and Bill Hudson for accounts.

Tony Butler was appointed Assistant Projects Manager to manage all other projects and Leone Panizzolo took over the day-to-day supervision of the building department.

Bill Hunt, an Electrical Technician, joined Saiccor in July 1977 as Assistant Electrical Engineer. He worked very closely with Jimmy McFeat and has been intimately involved in all Saiccor projects since 1977, more recently with upgrades of all substations and switchgear. His work in tracing the fault with the high voltage switchgear on the magnesium plant was vital for the plant's operation. Bill has been a man who has always quietly got on and done what was required.

Martin Ferreira joined the magnesium project team shortly after its formation, as Senior Process Engineer. A chemical technician, Martin joined the Saiccor laboratory on 25 November 1958, was promoted to Shift Superintendent on 12 August 1962, but left Saiccor at the end of May 1963 to join Shell/BP. He returned to Saiccor's laboratory in July 1964 and was promoted to Shift Superintendent on 1 January 1967. Promotion followed, to Production Manager on 1 December 1981 and Plant Manager on 1 April 1987. He retired at the end of November 1993. Martin had a deep understanding of the entire Saiccor operation, was technically capable and was well respected by everyone who worked with him.



Bill Hunt



Martin Ferreira

As discussions with suppliers about plant and equipment for the magnesium plant had been ongoing since 1981, the final requirements were soon established and orders placed. The recovery boiler and secondary recovery were ordered from Gotaverken (who subcontracted the construction to ICAL and ND Engineering), the washing plant from Rauma Repola, and the evaporator from APV Kestner – both constructed by ND Engineering. The digesters, tanks and pipework were ordered from ND Engineering, the turbo-generator from SGP (Austria), the process control system from Control Specialists (Fischer Provox), and instrumentation and electrics from UIC. The civil design was to be carried out by CBI and civil construction by Murray and Roberts.

Shortly after the main orders had been placed, a telex from Chris Hogg arrived: ‘My friend Lord Wienstock is most disappointed that you did not buy a GEC machine. Why?’ Our reply was that the GEC machine was more expensive and less efficient. There was no further communication from Hogg on the project.

As Saiccor had never made a magnesium cook, or evaporated and fired liquor, considerable research work was required to establish operating parameters. This was undertaken by John Thubron and Torgny Oehgren.

John Thubron, who had a chemistry degree with a further year to bridge it to chemical engineering, joined Saiccor’s research laboratory on 28 November 1974. Although he spent a brief period as Production Manager in the mid 1970s, his forté was research. Over the years he has done more research than anyone else into Saiccor’s entire process, having established optimum temperature profiles for both calcium and magnesium cooks, bleaching conditions (particularly with oxygen), silica removal and calcium reduction, amongst other things. John is a quiet man with a passion for long distance running – he has run the Comrades many times – but tends to walk at a snail’s pace deep in thought, hence Bruno Trevisan’s name for him, ‘Piede veloce’.

As the magnesium plant was the major focus of attention in 1983, the low river flow went almost unnoticed until mid-winter. The summer rains of 1982/83 had been very poor and by mid-May the river flow had dropped to 50 cusecs (1,4 cumecs). As the factory requirement was just over 40 cusecs and as summer rains were only due in September, the situation was uncomfortable. The earth weir at the intake had again been built, impounding some 250 000 m³ of water, which was required when in mid-June the river flow dropped to 40 cusecs for the next five weeks. On 24 July there were unexpected rains and the river flow went back to 50 cusecs, keeping above 40 until the end of August when it again started to fall.

Ted Beesley arranged for well-points downstream of the weir to pump water back over the weir, but their capacity was small. It was



John Thubron

then decided to dig a well, in the riverbed downstream of the weir, with payloaders, putting large pumps on a raft and pumping water over the weir. After a week the payloaders could no longer operate efficiently due to the depth of the well and Hugh Ahrens of CBI was called in. He arranged two large drag lines. The well eventually reached a depth of 5 to 6 m.

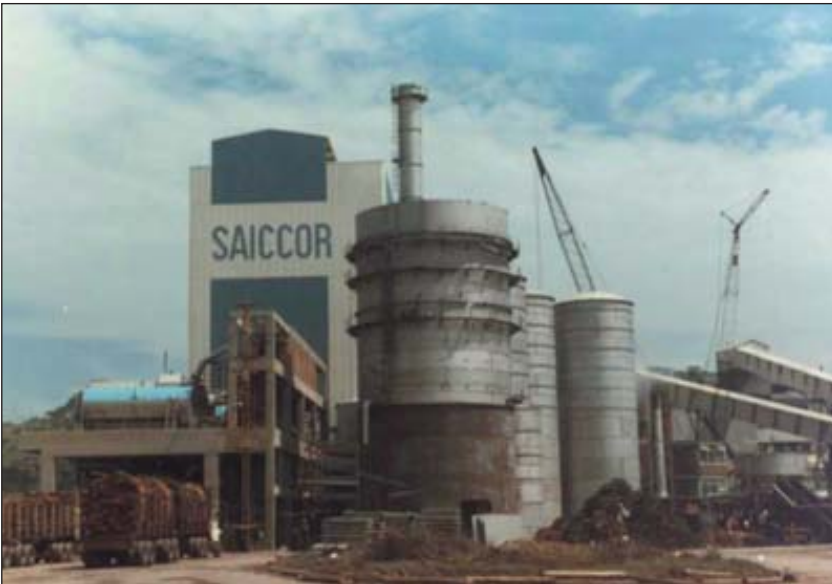
Although Oakley Tainton had retired, he was still on the Board and insisted on visiting the river site with Ted and I (Peter Dell and Norman Boulter were abroad). While the three of us were looking at the works, Tainton turned to me and said, 'You should fire Ted.' Both Ted and I were taken aback. 'Why?' I asked. 'Because he's unlucky. You can't afford to have unlucky people around you.'

On 1 September, the river flow was 36 cusecs but dropped to 22 by 12 September. During this period, about 50 per cent of the impounded water had been used, leaving a supplement to supply for only three to four days. Production was reduced by 20 per cent and water-saving measures were introduced, which eventually saved 600 m³/h, allowing half the lost production to be recovered. The river flow deteriorated to 19 cusecs on 14 September and 16 cusecs on 21 September, the lowest flow in recorded history. On 24 September, after the first summer rains, the flow returned to normal and so did production.

Civil work for the magnesium plant started in October 1983. Early in 1984 structural work commenced, followed shortly by the arrival of the first equipment. The site was soon a hive of activity, and the project progressed steadily, according to schedule, throughout 1984. It was vital to the success of the project that the plant was commissioned before the end of June 1985 in order to claim the government investment allowance.



*Magnesium plant progress,
commenced October 1983.
(LEFT April 1984)*



Magnesium plant progress, commenced October 1983.

TOP LEFT July 1984

TOP RIGHT September 1984,

BOTTOM December 1984)

In March 1984 a leak was detected on the HDPE effluent pipe between the pump house and the rail bridge across the Mkomazi River. The leak was repaired, but investigations revealed that there was hard rock beneath the sand bed the pipe was resting on, which had caused the pipe to split. It was agreed to clamp the pipe where it was vulnerable. On Friday 20 July, a section of the pipe that rested on rock was exposed. The pipe was found to be fractured, but only weeping effluent. It was decided to do the repairs on Monday, but just after midnight the leak worsened and effluent started flowing across the road and into the river. An emergency repair was immediately carried out, during which time effluent was diverted to the old outfall at the river mouth. A strong incoming tide pushed effluent up the river. A number of fish died, and the *Natal Mercury* on 23 July 1984 ran the story under the headline 'Hundreds of fish killed when pipeline bursts'.

Norman Boulter claimed the *Mercury* was misleading the public. This was all reporter Janet Moore needed to commence a campaign against

Hundreds of fish killed when pipeline bursts

Mercury Reporter

HUNDREDS of fish littered the banks of the Umkomaas River mouth at the weekend, killed by chemical effluent leaked into the water from Saiccor's nearby cellulose manufacturing plant.

By yesterday morning fish could still be seen lying dead on the mudbanks and floating in the water, while local fishermen and businessmen angrily called on Saiccor management to do something.

Many claimed their businesses were at stake. Businessmen said the smell and pollution could affect the holiday industry.

A fisherman, who did not want to be named, said he had seen people gather up two or three fish at a time and take them away in baskets.

'It looked as if they were going to eat them and they could be poisoned,' he said.

Irish locals telephoned The Natal Mercury and told of Saiccor workers being rushed to the scene to remove the dead fish.

Untreated

When a Mercury team arrived, men could still be seen clearing up the dead fish.

Mr Norman Boulter, the factory works director, said the sea pipeline which was relined and rebuilt in 1981, had burst just after midnight on Friday.

Thousands of litres of untreated effluent had gushed into the river. The incoming tide then swept this up to the river mouth when it was discovered. The old pipeline had been put back into operation so that repairs could be carried out.

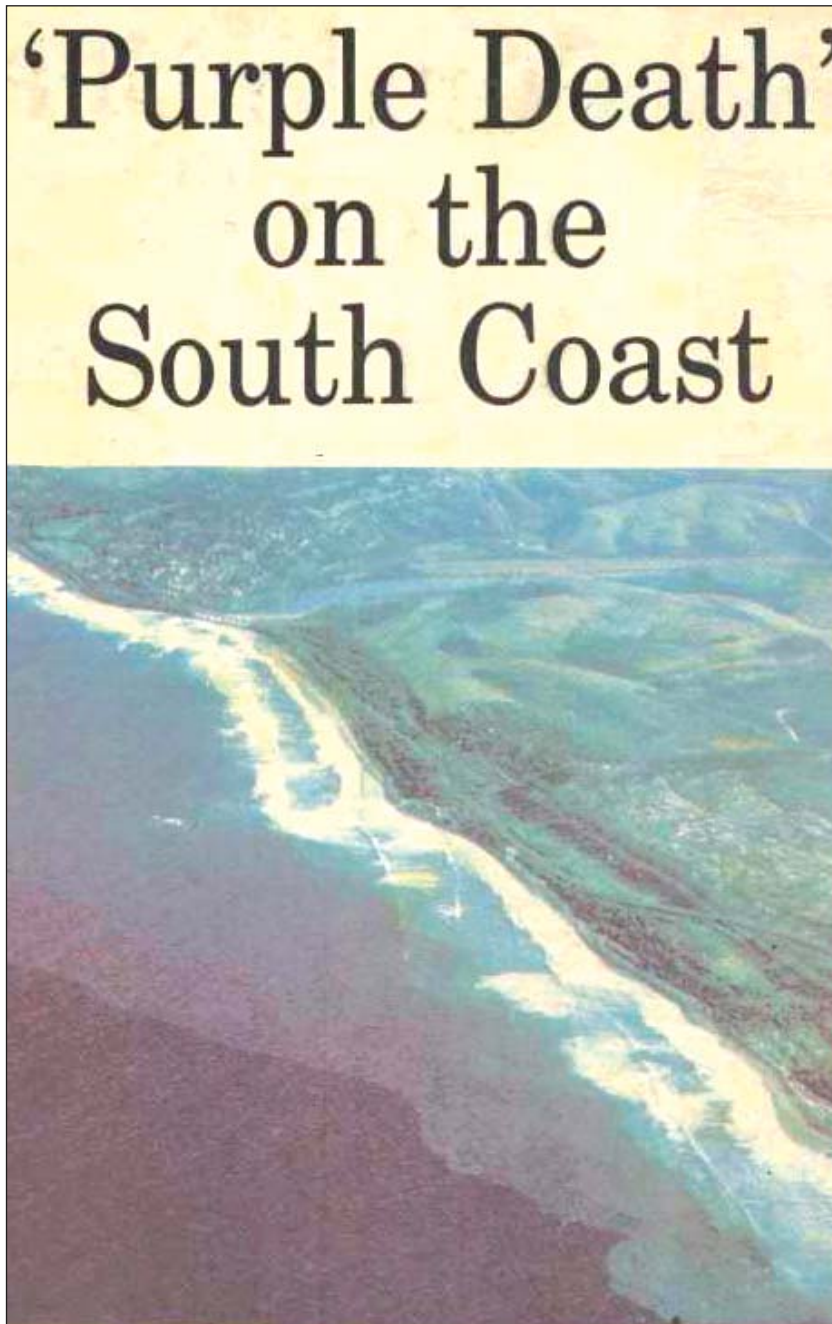
He said the problem had been brought under control by 8 a.m. on Saturday.

'The pipeline which goes out to sea was designed by the best civil engineering consultants in the world with the latest technology,' Mr Boulter said.



Fish, including large numbers of grunter, litter the banks of the Umkomaas River killed by chemical effluent spillage from Saiccor.
Picture by Mark Wing

The fish kill following the leakage of Saiccor effluent from a leaking pipe in 1984 caused a hue and cry in the media. The Natal Mercury ran the story



The culmination of the media field day with the leaking pipe debacle, an article which appeared in the Natal Mercury, July 1984

Saiccor. Criticism of Saiccor appeared regularly in the press, culminating in August 1984 with a colour photograph on the front page of the Saturday edition, under the headline 'Purple Death on the South Coast'.

Because of the outcry, the Department of Water Affairs set up an investigation under National Director Hendrick Best. As a result, Saiccor agreed to encase the HDPE pipe in concrete (between the pumps and the bridge, and on the north bank), and to conduct marine surveys. It was also made known that the magnesium plant, which was due to start up within a year, would reduce the solids content of the effluent by approximately 50 per cent.

Another leak developed on the north bank on 24 October. Because effluent spills had become such a sensitive issue to the public at large, the factory was shut down while the leak was clamped. It was decided to engage Brunel University in the UK to investigate the integrity of the pipe. The initial report from Brunel in December 1984 stated the HDPE pipe was of inadequate strength. There were further splits on the pipe in February and June 1985, when effluent had to be diverted to the old outfall, which caused much adverse comment from the media and public. In July 1985 Dr Bowman of Brunel University reported that the integrity of the HDPE pipe on the beach and in the surf zone could not be guaranteed and should be replaced. In December that year Brown and Root were called in to prepare a design for a new effluent pipeline.

Tucked away in the hills near Umkomaas, south of Durban, is a company few South Africans outside the forest products and shipping business have heard of, but which is one of the country's biggest export earners.

SA Industrial Cellulose Corporation (Saiccor) will contribute over R100m to the balance of payments this year. It has the enviable record of pushing up output and exports every year since it started operations in 1956, and further big increases are on the cards within the next few years. The replacement cost of its plant is already about R800m.

Saiccor is one of the world's largest producers of dissolving wood pulp, used as a raw material for cellulosic fibres (such as rayon) cellophane film and cellulosic ethers (a freestock for plastics, paints and other chemicals). MD Peter Dell estimates that the company supplies about one-tenth of all dissolving pulp this side of the Iron Curtain.

The company produced 368 000 t of pulp last year and expects output to top 400 000 t this year, despite the downturn in the world chemical industry. Fewer than a quarter of its 5 500 workers are stationed

at Umkomaas factory, however. The plant needs 1,25 Mt of timber a year, and Salcor rails and trucks in 60% of this from its own forests, mainly in the Richmond and Kwambonambi areas of Natal. Its plantations stretch over 56 000 ha.

Most of the remainder comes from other large growers such as Sappi and Mondi, but the company – like a handful of other plantation owners – has started a programme to encourage small-scale black timber growers. It sells them seedlings and agrees to buy their wood.

Saiccor has gained substantial respect even from SA's small growers who normally huff and puff against the big companies. It is usually among the first to agree to price increases to compensate for rail tariff hikes. "It's a first-class company," concedes the chief executive of another timber grower-processor, who ascribes much of its success to the recently retired chairman and MD Oakley Tainton.

"We are interdependent," says Dell. "We need to encourage growers to have confidence in planting and growing. They need confidence that we will continue to buy."

Two-thirds of Saiccor's shares are held by Courtaulds, the British textile and consumer products group. The Industrial Development Corporation owns the rest. "They're indispensable from the point of view of SA interest and knowledge," Dell observes.

Courtaulds companies – mainly in the UK, Western Europe, Canada and the US – buy about two-thirds of Saiccor's output. According to Dell, "we have progressively developed the pulp to be particularly suitable for fibre and film end-uses and processes used by Courtaulds."

Other customers are in Europe (including Scandinavia), Latin America and the Far East. The group recently broke

into the Japanese market.

Dell ascribes Saiccor's ability to maintain production at full capacity throughout the recession to "fairly aggressive marketing. We've been more successful than our competitors in keeping a reasonable proportion of the market." He insists, however, that Courtaulds' share of Saiccor sales has not risen significantly in recent years.

While Saiccor itself has become more involved in promoting and selling its products, it has also been helped by the establishment 18 months ago of Courtaulds Pulp Trading, a Coventry-based company. It handles pulp from Saiccor, and from the group's other southern Africa pulp producer, Usutu Pulp of Swaziland (in which the Commonwealth Development Corporation has a half share).

Saiccor's output is more than 10 times what it was in 1956. Says Dell: "We always have expansion plans." The last major investment was a third sheet pulp drying line installed in 1981.

Another big expansion is already on the cards. Dell says that "we're not quite sure what we're going to do," but confirms that work on whatever new facilities are decided on will probably start next year. According to one outsider, the expansion, is likely to raise Saiccor's capacity to around 500 000 t a year of dissolving pulp.



Dell ... 'we will continue to buy'



Saiccor ... pulping away at Umkomaas

Part of Dell's public relations campaign of 1984–85 was to foster good relations with the media. Articles such as this one began appearing in the press (Financial Mail, 12 August 1983)

In August 1984 Peter Dell hired a firm of public relations consultants in an endeavour to ease the public outcry over effluent by making known what Saiccor did, which up to that time was largely unknown as Oakley Tainton had generally refused to talk to the media. By contrast, Peter Dell spoke to the media at every opportunity from the time he arrived at Saiccor. For example, an article entitled ‘Saiccor? What’s That?’ appeared in the *Financial Mail* of 12 August 1983, giving some background to the company and describing its operations.

Saiccor’s public relations campaign of 1984–85 did little to ease public concern, although the public in general was willing to wait and see what happened once the magnesium plant was operating and the effluent load reduced.

A number of senior staff changes occurred over the period 1983–1985. Geoff Sowler resigned at the end of April 1984 to return to the UK. Derek Weightman took over as Assistant Technical Manager and Lester van Groeningen became Laboratory Manager. Bill Hudson was appointed to the Management Committee in August 1984. Piero Mian reached retirement age at the end of September 1984 but moved to the magnesium plant, while Henry Zan took over as Divisional Engineer of Pulp Preparation. Gino Rivetti retired two years early on 1 December 1984 to run a restaurant, and Ennio Zan took over as Production Manager of bleaching. Andrew Carr was appointed to the Management Committee in April 1985.

In August 1985 David Hillcoat was seconded from Courtaulds to Saiccor as Financial Controller and a member of the Management Committee. Part of his brief was to become fully involved with the new computerised accounts systems. David was a very bright accountant with a sound understanding of business – although he did initiate the expanding of the operating statement! He ended up working very closely with Gordon Campbell and returned to Courtaulds with Gordon in July 1987.

On 17 April 1985 Joe Khumalo became the first Zulu apprentice at Saiccor to pass his trade test and was appointed as an artisan (Turner). Joe joined Saiccor in 1982 as a handyman and on 7 March 1983 became one of 10 apprentices employed that year. He passed his trade test on 26 March 1985 and has been working as a Turner in the workshop ever since, having established his competence.

Michael Nxele, a fitter from the 1983 apprentice intake, is today a chargehand in bleaching.

Since 1985, 80 artisans have qualified through the Saiccor Training Centre, under the guidance of Roland (Tex) Ranger and Henry Wright.

In September 1985 Saiccor signed the first Recognition Agreement with a black trade union – The Dissolving Pulp and Allied Workers Union, a SAAWU affiliate, headed by South Africa’s first rebel trade unionist (jailed for his efforts), Sam Kikine. The first of many long,



David Hillcoat



Joe Khumalo



Sam Kikine



Andy Porter, with Janice Thomas, LEFT (Bryan Thomas's daughter-in-law), and Natalie Kalamouducos (CENTRE), who took charge of all Saiccor's Industrial Relations issues in the late 1980s and 1990s

frustrating wage negotiations took place with Sam in 1986, although Sam likes to point out there never was a strike while he negotiated wage increases. He had an uncanny knack of quickly finding out what the company's final offer would be, and then spending many hours trying to get a little more. He was a great character, a showman, and a shrewd negotiator. Unlike most trade unionists, he frequently asked for things the company could give him. From 1987 all the negotiations with Sam Kikine were handled by Andy Porter, Moses Magubane and me (Janice Thomas joined the team in 1989). Andy liked to say I did most of the talking while he did most of the thinking. PPWAWU became the majority union in 1991 and no further negotiations took place with Sam.

Andy Porter started his working life as a trainee Mine Official, progressing to Mine Captain in the mid 1970s. He then transferred to Mine Personnel Officer. After leaving the mining industry in the mid 1970s, he continued his career in personnel management in the manufacturing, insurance and transport industries. Andy joined Saiccor on 1 February 1982 as Personnel Manager, a position he held until he retired in March 1996. He is a man with a fine sense of humour and an easy-going nature, with a cliché for every occasion, like 'damned if you do and damned if you don't' or 'fire failures fast!'

Three significant events occurred in 1985: the start-up of the magnesium plant, the Saiccor Review, and the currency debacle.

The construction of the magnesium plant proceeded according to schedule and was ready for start-up in April 1985. The start-up team



The magnesium plant in operation, August 1985

had been transferred to the plant in February and was organised as follows: Two superintendents per shift, including graduates Peter Morris, Andy Stretton and Eugene Nicholson, fresh from Natal Technikon, who were paired with experienced superintendents Silvano Moro, Sergio Baldo and Alistair Macbeth; new mechanical technicians Bernard Jorgensen-Lian, Lauro Chiccaro, Gianni Ioppo and Des Fox, who had been working on the construction of the plant, together with Mike Brull, were used as operators. The project team, together with Lionel Davies, managed the start-up.

Lionel Davies was in the merchant navy before joining Saiccor as an engineer on 1 December 1980. He was appointed Services Engineer from February 1981 and Services Manager in August 1996. He left at the end of August 2000. Throughout his career at Saiccor, Lionel was in charge of the operation and maintenance of boilers, water coming into the factory, and effluent going out. He worked very diligently for 20 years, spending many hours in the factory solving and fixing problems.

Secondary Recovery was started on 29 April 1985 to 'synthesise' cooking liquor. The first magnesium cook was made on 8 May in No18 digester and the first washed pulp on 10 May. The evaporator started on 22 May and the recovery boiler and turbogenerator on 3 June.

The project was completed on time but the cost had risen to R90 million as a result of the depreciation of the rand.

Norman Boulter put out a notice on 9 July, which stated: 'At their meeting on July 8th 1985, the Board of Directors of Saiccor expressed their appreciation of the way in which the management and staff of Saiccor had brought the new plant to the commissioning stage on time. It was recognised that this considerable achievement was made all the more remarkable by the fact that the existing plant had been



Lionel Davies

kept operating at full rate throughout the whole of the period of the project.’

However, there were numerous start-up problems on the magnesium plant in 1985 that adversely affected factory production because of the interdependence of the calcium and magnesium plants, particularly with regard to steam and power. Some of these problems were:

- The implosion of the cooking liquor storage tank – May.
- Corrosion of the internals of the knotters that were incorrectly supplied in 304 stainless steel – June.
- Damage to the compressor shaft - Provox failure – June.
- H₂S formation in the boiler, leading to high thiosulphates in the cooking liquor which in turn caused severe lignin condensation in digesters. Plant was shut down for five days to clean out contaminated pulp and liquor – July.
- Trips on boiler and turbine due to failure of printed circuit boards on the Provox control system – August. Trips became worse and spread to all other parts of the magnesium plant, resulting in up to 20 board failures per week. Electrical consultant Rapha Pretorius was brought in during October and found that high voltage switches were bouncing when opening, giving rise to high voltage spikes (over 100 kV) which induced high currents into Provox cables, damaging the boards.
- Severe flash on 11/6,6 kV substation bus-bar, tripping out the entire factory – September.
- Failure of recovery boiler feed pump, magnesium plant off for 14 days – January 1986.

Once the high voltage switches were repaired, failures of the Provox boards diminished to zero over two months and the magnesium plant operated quite steadily in 1986.

The steep learning curve offered by the start-up of the magnesium plant launched the careers of the three capable young process technicians, Eugene Nicholson, Peter Morris and Andy Stretton. Unfortunately, Eugene left Saiccor at the end of July 1987 and although he did return in 1990 he only stayed for a year. Peter joined Saiccor on 1 February 1982 and spent the next three years studying for the Pulp and Paper diploma at Natal Technikon. He was appointed a Shift Superintendent on 1 January 1985, promoted to Production Manager on 1 November 1988 and then to Plant Manager on 1 August 1992. Peter is a most capable individual who is now well experienced in all of Saiccor’s plants.

Andy Stretton joined Saiccor on 1 February 1982 with Peter Morris, and followed the same career path. However while still a superintendent, he left Saiccor at the end of March 1989 to look for greener pastures, but returned exactly a year later as a Production



Peter Morris



Andy Stretton

Manager. He was promoted to Senior Production Manager on 1 January 1994 and Plant Manager on 1 July 1996. Unfortunately Andy left Saiccor in June 2001. He was a very capable and experienced plant manager.

The Saiccor Review was the second significant event to occur in 1985. Dr Geoff Turner, a director of Courtaulds and a previous CEO of Courtaulds Acetate, was due to retire in 1985 but was asked by Chris Hogg to stay on to conduct a business review of Saiccor, entitled the Saiccor Review. Geoff visited Saiccor a few times early in 1985 for in-depth discussions with management. He was appointed to the Saiccor Board in March and then formed a team to prepare the Review. The team comprised Andrew Carr, Andy Hopkins (an experienced Courtaulds chemist), Marcello Malpiedi, Patrick Shanley (a Courtaulds accountant) and Geoff Turner.

The Review was completed at the end of September and Turner wrote the following note after the presentation:

The interim report (Saiccor Review) was presented to the Saiccor Board on 23.10.85 (at the Royal Hotel, Durban). In addition to the Board and the working party, S Stone, BA Townsend, and D Campbell were present.

The main contention that Saiccor with its actual and potential strengths should, and will probably have to limit its penetration of its present declining market and take active steps to broaden the market available was accepted.

The action programme set out was agreed in principle.

The Review found that 'Saiccor is a very competitive pulp producer (the world's lowest cost producer), and has good future prospects subject to political factors.' However, the market available to Saiccor was declining by 3,2 per cent per annum, hence it was necessary to improve Saiccor's quality to sell more of its existing product, and also to make higher alpha pulp (where, for the main end use – cellulose acetate – a soft low density reeled pulp is also required). But, even if all this were done 'we shall still run out of space (in the market), in ten years,' which led to the final conclusion 'To sell pulp for parts of the much bigger paper pulp market.'

Only Sipco Huisman strongly objected to Saiccor making paper pulp, on the basis that Saiccor would make the poorest of paper pulps, even if a furnish other than *Eucalyptus* were used.

The action programme agreed in principle by the Board was:

- *To improve quality* – Saiccor's pulp was considered poorer than that of its competitors because of high trash levels (spots, ash, calcium and silica) and because of the variability of all quality parameters (Marcello's hobby-horse). It was believed the cause of the problem was that all plants were operating above design capacity. Although the team did not have any solutions, the action plan was that investigations should be undertaken to find solutions.

- *To make higher alpha pulp* – Saiccor to investigate the installation of a third bleach plant and new pulp machine, splitting the plant into two streams, where one stream could make higher grade dissolving pulp and paper pulp.
- *To make paper pulp* – Saiccor to investigate the making of magnefite paper pulp from either *Eucalyptus* or pine, and to investigate the market for this pulp.

The Review was of the opinion that *Eucalyptus* was in short supply, although Johan van der Walt believed that with improvements already made in silviculture, this would soon be reversed.

In terms of plant and equipment, the Review was repeating what was in the magnesium plant proposal of 1982, but with a greater emphasis on quality, while the marketing thrust of the 1985 Saiccor Review has been the basis of Saiccor's marketing strategy ever since.

I have it on very good authority that Geoff Turner made a second presentation of the Saiccor Review, to the Courtaulds Board, in either late 1985 or early 1986. In this presentation he recommended to the Courtaulds Board that they sell Saiccor. Again only Sipco Huismans objected. (Years later when Sipco was Managing Director of Courtaulds, and Saiccor was owned by Sappi, Sipco offered Eugene van As a blank cheque to have Saiccor back.)

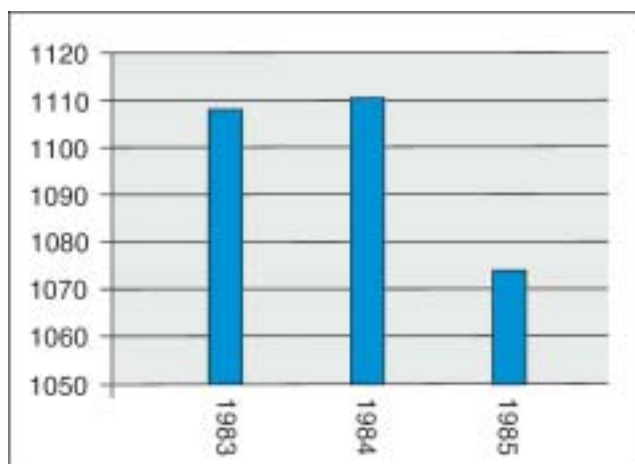
The third significant event that occurred in 1985 concerned the currency debacle. From about 1982 the Courtaulds treasury started speculating with currency, by having Saiccor sell some of their dollar sales forward to the Reserve Bank when they believed the rand would strengthen. The gamble seemed to work until 1985. In early 1985 there was a fairly widespread belief in financial circles that the rand was about to strengthen substantially. Many importers waived forward cover while Saiccor sold a large portion of its 1985 dollar sales forward. Instead the rand 'fell out of bed', and Saiccor, for the first time in its history, made a loss (nearly R30 million).

Peter Dell was recalled to an undisclosed position at Courtaulds in January 1986, only to resign a short while later. Norman Wooding and James Wrangham resigned from the Saiccor Board. Gordon Campbell replaced Peter Dell as Managing Director on 1 February 1986, and Koos van Rooy became Chairman.

Production over the Dell period increased by 5 per cent in 1983, was static in 1984 and dropped in 1985 as a result of the start-up of the magnesium plant.

Saiccor sales outside Courtaulds grew to 45 per cent of total sales by 1985, with sales to Japan alone being just short of 100 000 tons. Saiccor had become an inter-national trader.

Production t/d in the Dell era, 1983–1985



The Campbell Period (1986 –1987)

Gordon Arden Campbell was a chemical engineer who worked for Courtaulds Acetate, becoming Chief Executive before being appointed Managing Director of Saiccor on 1 February 1986.

Gordon was a lively, assertive individual, who firmly believed Saiccor was 20 years behind the times, which he determined to rectify in as short a time as possible.

His hobbies were 'sports of all kinds', having played rugby (for the Counties) in his youth, and golf when older. He was appointed to the Courtaulds Board in 1987 and left Saiccor in July 1987, although he remained on the Saiccor Board until Sappi bought Saiccor in 1988.



*Gordon Arden Campbell,
Managing Director 1986–1987*

From 1 February 1986 the Board comprised: P J van Rooy (Chairman), N Boutler,* G A Campbell,* S Huismans,* M Macdonald, G B Turner*, J L van der Walt and J B Walmisley* (*British)

In October 1986 R R D Duncan-Anderson was appointed to the Board. The Management Committee and senior staff remained unchanged with the appointment of Gordon Campbell.

Soon after his appointment, in June 1986, Campbell expressed his views on Saiccor:

Saiccor has developed enormously in the thirty years of its existence, but with the exception of the very early years of literally breaking new ground, the last three years must have seen the most dramatic changes. We have changed from being a producer of pulp solely for the Courtaulds group to a major international trader. This has put enormous demands on the company to meet new standards in quality, service, distribution and finance. However, the need to continue to increase output remains as strong as ever and consistent reliable production must be a prime target.

I believe we can continue to expand our business, this will require the successful development and co-operation of each area of the company – forestry, production, marketing, research, and finance. This is really about people – people working constructively together.

There was, in fact, very little change at Saiccor when it became an international trader. But with these principles in mind, Gordon set out to create a new image for Saiccor, and to ‘improve and expand the technical and development resources’ as recommended in the 1985 Saiccor Review. He firstly created a new logo, symbolising the production of a chemical in an environmentally friendly manner. He then launched a biannual company newspaper, the *Saiccor News* (the previous newspaper, *The Raypulp Recorder*, had been published between 1960–1962, in 8 volumes). The first volume of the *Saiccor News* appeared in June 1986.



The purpose of the paper was to talk about the business and the people involved in it, thereby creating a better understanding of the



P J van Rooy



Richard 'Scotch' Duncan-Anderson

business and a greater interest ‘in our widespread activities’. It was then time to ‘improve and expand the technical development resources.’

Don Campbell retired at the end of 1986. Don’s position of Financial Manager was taken over by Richard (‘Scotch’) Duncan-Anderson, who was hired as Financial Director, while Jack Ardé was hired as Company Secretary.

Scotch was educated in Zimbabwe, where he trained as an accountant before working as an audit manager in Europe for nine years. Returning to South Africa, he spent six years in charge of an audit group at Anglo American Corporation before joining Saiccor on 1 October 1986. He was a keen and competitive sportsman. He had a strong desire to expand the role of the finance department. Scotch clashed with Hector Mackenzie (Managing Director from 1987) and left Saiccor in April 1989.

Jacques (Jack) Ardé was born in Umzinto and is a Natalian through and through. He worked as a financial controller for Sterling Drug and SA Warehousing, and then as Company Secretary for Carnation before joining Saiccor in September 1986. Affable and easy going, with an interest in art and travel, Jack remained Company Secretary until he retired in April 1993.

John Hinck, an American chemist, was hired by Campbell as Product Development Manager on 1 December 1986. John had worked in research, production, and sales first at Rayonier and then at Western Pulp, where he had dealings with Campbell when Campbell was buying pulp for Courtaulds Acetate. On 1 April 1987 he was appointed to the newly defined role of Technical Manager. His brief from Campbell was to develop new grades of pulp to provide a wider market for Saiccor’s output. John, a music lover and science enthusiast, also clashed with Hector Mackenzie and he left in October 1988.

Trevor Larkan joined Saiccor on 1 January 1986 to head up a new treasury operation. Trevor was an accountant educated at Natal University, from where he also had an Honours degree in Financial Management. He worked for six years at Unicorn Lines and Jet International Travel before joining Saiccor. He was appointed Financial Controller and a member of the Management Committee from 1 April 1987, then Financial Manager in May 1989. Trevor was appointed to the Saiccor Board on 1 January 1992 and at the end of 1992 was appointed Financial Director of Sappi South Africa. He then transferred to the United States, ultimately becoming Financial Director of Sappi Fine Papers. He left Sappi quite suddenly in October 2001. Trevor was a fine accountant with a sound understanding of how a business functioned.

In the middle of 1986 John Earnshaw announced that he would be leaving Saiccor at the end of 1986 (although he officially retired on



Jacques 'Jack' Ardé



John Hinck



Trevor Larkan

1 March 1987). Although Mike Howlett was the 'heir apparent', Norman Boulter and I felt line management was not Mike's forté (Mike agreed), and we recruited Chris Williamson as the new Chief Engineer on 1 December 1986. Chris graduated as a mechanical engineer from Kings College, University of Durham. He came to South Africa in 1976 to work for Sasol, then joined Sentrachem before joining Saiccor. Unfortunately, he found he preferred project work and in July 1996 he relinquished his role as Chief Engineer to work on the SAP project. Chris left Saiccor in March 1999 to pursue his career in project management.



Chris Williamson

By the end of 1986 the Management Committee had been transformed and expanded to include the following:

Gordon Campbell (Managing Director)
 Norman Boulter (Works Director)
 Sinclair Stone (Technical Manager)
 Scotch Duncan-Anderson (Financial Director)
 Bryan Thomas (R & D Manager)
 John Hinck (Product Development Manager)
 Chris Williamson (Chief Engineer)
 Andrew Carr (Commercial Manager)
 Dave Hillcoat (Financial Controller)
 Andy Porter (Personnel Manager)
 Jack Ardé (Company Secretary)

The magnesium plant operated steadily in 1986, enabling annual production to rise to a record level of 1 161 t/d. The newly developed Kamyr MC pumps that had been installed in No 2 bleaching allowed its throughput to be increased, thereby increasing factory production to 1 200 t/d by April 1986. The MC pump was probably the most significant development in the pulp and paper industry in the 1980s. Sales increased to 1 134 t/d and profits to R94 million. External sales made up 51 per cent of total sales.

Quality also improved. A consistent blend of magnesium pulp reduced calcium levels, while silicas and resins also decreased.

	SHEET PULP				
	Si ppm	CaO ppm	Ash ppm	Resin %	Spots /m ²
1984	86	269	705	0.15	738
1985	84	189	667	0.15	840
1986	71	106	638	0.12	713

Clive Murphy was hired in 1985 as Marketing Manager – New Products, to initiate the sales of lignosulphonate. The only product

available at the time was the 15 per cent solution from the liquor discharge phase of the digester cycle. Nevertheless, Clive, Aldo Stella (who was transferred from the laboratory to assist Clive), and Joseph Mabida (who prepared the product), set about selling 15 per cent lignosulphonates almost exclusively for dust suppression. By 1986 some 50 per cent magnesium liquor became available, which opened new markets as a concrete additive, a binder and a resin extender. By the end of 1986 about 10 per cent of the local market for lignosulphonates had been captured. An evaporator was installed in 1988 to make 50 per cent calcium lignosulphonates. Sales climbed steadily to reach about 600 t/month in the mid-1990s.

Clive Murphy was appointed to the Management Committee in February 1990 but left Saiccor in May that year. Aldo Stella died while on holiday in the United States in December 1987, while Joseph Mabida was murdered on his way to work during the political turmoil of 1990. Noel Rossouw then managed the business until it became part of LignoTech in 1999.

In January 1986 Courtaulds Chairman Sir Christopher Hogg visited Saiccor. I had the opportunity of showing him the magnesium plant in operation. He was impressed and very pleased, and commented that he had not realised how big it was.

Also in January 1986, the Pondo employees (60 in total) absconded. The Pondos, who had been part of Saiccor's workforce from the beginning, had been under threat from the Zulus since November 1985. The conflict had arisen when a Zulu *induna*, in a speech in Isipingo, had stated that the reason the Zulus had no jobs was that the jobs had all been taken by the Pondos. Slowly the Zulus put pressure on the Pondos. A Pondo was kicked to death in front of Saiccor's security gate while the four security guards on duty supposedly saw nothing. By January 1986 tensions were high and all the Pondos ran away, fearing for their lives. No one was employed to fill the vacancies and a month later the Pondos returned to work without incident, carrying on where they had left off as if nothing had happened. There have been no further tensions.

The Brown and Root proposal for a new submarine effluent pipe was received in June 1986. By August 1986 the Department of Water Affairs and Forestry agreed to a 3 km stainless steel pipeline with diffusers over the last 500 m, on condition that if the environmental aesthetics were not improved, Saiccor would extend the pipeline to at least 6 km.

Tenders for the pipeline were called for in November, and Smit Tak were selected in January 1987. Orders were placed in February – the order for stainless steel was the biggest Columbus (Middleburg Steel) had ever received. Construction started in March 1987. Norman Boulter managed the overall project, Ted Beesley was Project Engineer,

while Chris Williamson controlled engineering. Brown and Root were the project managers with Rick Haggett the Project Director. Smit Tak, with Cor Vermeer in charge, were the main contractors who subcontracted the 900 mm diameter pipe manufacture to ND Engineering, with Allan Lofstrand in charge.

Site work on Fontana's farm in Ilfracombe started in April 1987. The construction of the jetty through the surf zone also started in April 1987.

A number of small projects aimed at improving pulp quality were undertaken over this period, although none had a significant effect, namely:

- Improvements made to chip handling (to prevent old chips being used).
- Liquid sulphur dioxide injection into SO₂ Recovery to improve liquor strengths. This was not very successful and was abandoned after an accident.
- Log washing to reduce incoming silica.
- The installation of sand filters in the calcium plant to reduce silica in cooking liquor. This was unsuccessful as filters blocked solid with calcium sulphate. Sand filters were moved to the magnesium plant in January 1988.
- The redesign of the approach system to No 3 continua to include thickeners and fan pump, to enable feed consistency to be dropped to No 2 second screening to improve silica removal. Commissioned November 1988.

In December 1985 laboratory tests demonstrated the feasibility of making sulphite paper pulp from either *Eucalyptus* or pine. By September 1986 a scheme for cooking pine (to make dissolving pulp) was prepared, at a proposed cost of R25 million for additional plant and equipment. The price tag dampened Gordon Campbell's enthusiasm somewhat, but in late 1986 John Hinck persuaded Gordon that pine could probably be processed without any capital expenditure. Gordon's enthusiasm returned and a pine trial was planned for June 1987. Gordon explained his reasoning in the *Saiccor News* of June 1987:

The demand for viscose fibre and cellophane on a world basis has continued to decline, as well as having moved geographically. If Saiccor is to remain only a viscose pulp producer we will have to take a larger and larger share of that declining market. Although this is perfectly possible, the consequences will be a less successful company. An alternative strategy is to develop our product range further and thereby to open up wider selling opportunities for Saiccor. This is the strategy we are investigating at the moment. Many of the potential end users require long fibre pulp. So, in the next couple of months we will be doing plant trials on the use of pine wood as the source of raw material.

In February 1986 discussions took place with Thermex, a Johannesburg company run by Chris Barnard, on making activated carbon from Saiccor effluent. The concept was the brainchild of Dr Illeri Seppa, an exceedingly bright Finnish chemical engineer. Illeri was an ebullient 'ideas man', but with a poor command of English, which often caused great embarrassment. Laboratory work progressed successfully. By early 1987 it was decided to build a pilot plant on a joint venture basis between Saiccor and Thermex. Saiccor hired Malcolm Simpson (Derek's brother), a young chemical engineer, to work on the pilot plant, and Mike Howlett was the engineering advisor. Illeri Seppa led the team. The pilot plant produced a high purity carbon that was suitable for further processing to activated carbon. By-products included fermentable sugars suitable for converting to alcohols or protein. However, by May 1989 it was concluded that full-scale exploitation of the process was not commercially attractive and all work on the project stopped. Seppa wrote a scientific paper on the work, where in the final acknowledgement his poor command of English, coupled with his exuberant confidence, led to a typical faux pas:

'...and finally to Mike Howlett, technical projects manager for Sappi-Saiccor, who assessed and corrected the drafts of this paper into native English language and who is largely responsible for its total lack of comprehensibility.'

By the middle of 1986 the black trade union SAWU started expressing discontent with the job grades (which had been established by management) at Saiccor. When management tried to circumvent the issue, the union became more adamant until management finally agreed in November 1986 to regrade all jobs in the wage earning category according to the internationally accepted Patterson system. This was an enormous undertaking, as many of the jobs had no job description.

At the same time, November 1986, the random breathalyser was introduced at Saiccor, following an accident in the boiler house in which an outside contractor died. Although the Inspector of Machinery, Colin Murphy, did not apportion any blame to Saiccor, he asked what steps were being taken to prevent people under the influence entering the factory. The breathalyser was not well received! Even today, after being in constant operation for 15 years, it is still the subject of fierce criticism, as many people have been dismissed as a result of its reading.

In August 1986 Saiccor had a visit from the Department of Health informing us that both local residents and the press had become more sensitive to air pollution from Saiccor. Consultants were engaged to measure sulphur dioxide emissions from all stacks and sulphur dioxide levels in the surrounding communities. Once the results were known,

Saiccor proposed piping the exhaust from the Hagglund towers (the highest source of sulphur dioxide emissions) to the venturis in the magnesium plant. The Department of Health was happy with the proposal. The project went ahead and was commissioned in June 1988, just two months after the first official gas complaint from Umkomaas and Ilfracombe.

In late 1986 Gordon Campbell sold the Lido because it was not profitable. It was probably never profitable, but was kept as a convenience for functions and guests. Oakley Tainton insisted on Saiccor guests staying at the Lido, which had ensured some occupancy, but when Oakley retired the practise ceased, leading to a decline in occupancy with its inevitable consequence. The Lido was so much a part of Saiccor's history, it was sad to see it go.

Production dropped from 1 170 t/d to 1 153 t/d in the last calendar quarter of 1986, and continued to fall to 1 115 t/d in the second quarter of 1987. Morale had started to deteriorate. The organisation was changing, which could be accepted, but there was a feeling that longer-serving employees, particularly the Italians, were not recognised for the contribution they had made to the success of the business. There were too many new positions and too many new people in senior positions. The Italians, who were then nearly all in their mid to late fifties, believed that although they had given their lives to making Saiccor a success, no one now even knew what they had achieved, nor did they care .

Gordon Campbell asked me in the second quarter of 1987 what we needed to do to make 1 200 t/d. I suggested we give out 30 company motor cars. Gordon answered that he would be happy to give one or two cars if that could solve the problem, but 30 were out of the question. 'Do you know that in Grimsby only the factory manager has a company car?' was his response. He would not accept that the practice in South Africa was different from that in the UK. At that time only Saiccor's Management Committee had company cars, which was far less than other comparable companies in South Africa.

Early in 1987 Norman Boulter announced he would be retiring at the end of May 1987. Gordon Campbell reorganised fairly quickly. I was to become Works Manager and John Hinck Technical Manager, from 1 April 1987. However, the role of Technical Manager had been redefined to include quality assurance, product and process development, process specification, and to provide technical support through his department.

Bryan Thomas reported to John Hinck. Mike Howlett transferred to the technical department as a development engineer, and other transfers to the technical department from the production department were Wayne Weston, a young chemical engineer who

had joined Saiccor on 1 May 1986, and Gunther Garz and Chris Baum, who had both just completed their chemical engineering diplomas. Derek Weightman was appointed Deputy Works Manager (the old Technical Manager position), while the Assistant Technical Manager position became Plant Manager – Mike Bentley was moved to Pulp Finishing as Plant Manager, while Martin Ferreira was appointed Plant Manager for Pulp Preparation from April 1987. Silvano Moro, who had been at Saiccor since its inception, was appointed Production Manager of the magnesium plant.

Although Norman Boulter was to retire at the end of May 1987, he agreed to stay on in a consulting capacity to look after three projects, the effluent pipeline, the carbon pilot plant (Saicarb) and the flats in the town of Magabeni (which were all completed by May 1989). He also remained on the Board as a non-executive director until the Sappi purchase in 1988.

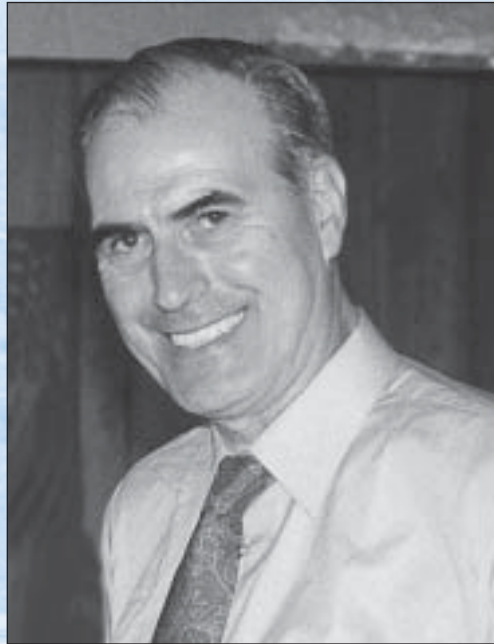
Shortly after the reorganisation of Saiccor, it was announced that Gordon Campbell had been appointed to the Courtaulds Board, where he retained responsibility for the Pulp Product Group worldwide, remaining on the Saiccor Board. Although Gordon left Saiccor in the middle of July 1987, Hector Mackenzie took over as Managing Director from 1 June 1987.



Silvano Moro

The Mackenzie Period (1987 –1989)

Dr Hector Douglas Mackenzie, a chemist, was Site Director at Grimsby in the UK before becoming Managing Director of Saiccor on 1 June 1987. He had worked in research and production at Courtaulds from 1955, and was joint Technical Manager at Usutu from 1960 to 1963. Hector was a polite, 'old-fashioned' English gentleman, but was as tough as teak in his business dealings.



Dr Hector Douglas Mackenzie

From 1 June 1987 the Board comprised: P J van Rooy (Chairman), H D Mackenzie,* N Boulter,* G A Campbell,* R R D Duncan-Anderson, S Huismans,* M Macdonald and J L van der Walt. (*British)

At this time, I was Works Manager. I was born in Johannesburg on 26 July 1942. After completing school at CBC in Bulawayo (in what was then Rhodesia), I returned to Johannesburg to study chemical engineering at Wits. From there I worked in London for four years before joining Saiccor's Process Investigation department in May 1972. In 1976 I was appointed Assistant Technical Manager, in 1982 Technical Manager, in 1987 Works Manager, and appointed to the Saiccor Board in January 1992.

The Management Committee comprised:

Hector Mackenzie (Managing Director)

'Scotch' Duncan-Anderson (Financial Director)

Sinclair Stone (Works Manager)

John Hinck (Technical Manager)

Bryan Thomas (R & D Manager)

Chris Williamson (Chief Engineer)

Andrew Carr (Commercial Manager)

Trevor Larkan (Financial Controller)

Andy Porter (Personnel Manager)

Jack Ardé (Company Secretary)

Derek Weightman was Deputy Works Manager, while Plant Managers were Mike Bentley (Finishing), and Martin Ferreira (Preparation). Production Managers were Bepi Martelossi, John Davey, Ennio Zan, Marino Cudin, Sergio Baldo and Silvano Moro, with Gordon Vice as Woodyard Supervisor.

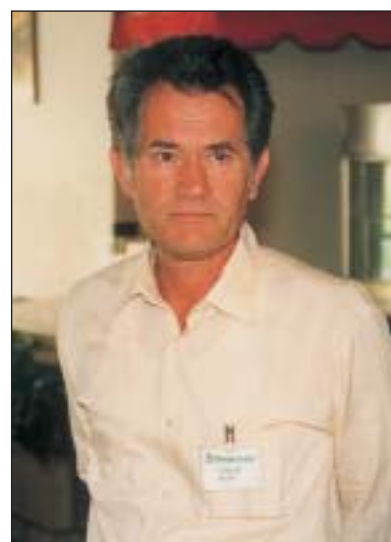
Sergio Baldo was born on 21 March 1937 in San Giorgio di Nogaro and came to South Africa in 1957 to work on the mines – he had not been associated with SAICI. He joined Saiccor on 16 April 1963 as a fitter, and soon became the key artisan in the liquor plant, doing every imaginable job from lead burning to brick laying.

In 1981 Sergio was appointed a Production Superintendent and then Production Manager of the liquor plant in July 1987, a position he held until he retired on 1 May 1997, during which time he took the liquor plant from its antiquated state into the 21st century. Sadly, he died on 12 February 2000. Sergio had an extremely inquiring mind, seeking reasons for everything. He was a most capable individual who succeeded at all he did through dedicated effort. He felt a closeness to the working man. In his spare time he was a cook of note.

John Davey was born on 31 January 1927 and was schooled at Merchiston in Pietermaritzburg, and Kersney. He farmed with his



Sinclair Stone



Sergio Baldo



John Davey

father before joining Saiccor on 21 September 1962 as a crane driver. On 1 May 1969 he was appointed Woodyard Supervisor, and was transferred to the flock plant on 12 July 1982. He later also took control of No 1 continua. He retired on 1 March 1992. John was a man with very firm opinions and, being reluctant to compromise, often found himself at loggerheads with colleagues. He was a tough task master but a good manager, and a keen and competent sportsman.

Divisional Engineers were Basilio Segatto, Owen Spence and Henry Zan. Services Engineer was Lionel Davies, Electrical was Jimmy McFeat, Instruments Barry Tokelove, Workshops Attilio Segatto and Building Luigi Mazzaro.

Luigi Mazzaro is the son of Lorenzo, who came to Saiccor on 24 June 1954, and retired as a Boilermaker Chargehand in the workshop on 1 May 1991. Luigi was born in San Giorgio di Nogaro on 1 August 1952 and came to South Africa in October 1956. After a successful school career, he spent two years at University before joining civil consultants, where he completed a civil engineering diploma (T4). He joined Saiccor on 1 April 1978, where he completed his T5. He was appointed Building Manager on 1 June 1987.

Luigi was a star footballer, turning down professional offers when he was 17, but toured Europe in 1977 as part of the SA Universities team. He was a leading player at the Umkomaas Football Club.

Barry Norman Tokelove was born on 7 December 1932 to a family with deep-seated British colonial traditions – the wearing of a pith helmet was mandatory. He was educated at Kersney, which developed his innate sense of humour and fun. After obtaining his instrumentation diploma, he worked at the CSIR before joining Saiccor on 1 March 1971 as Assistant Instruments Engineer. He was promoted to Instruments Engineer on 1 January 1976 and retired on 1 May 1994.

Ciano Ioppo was Projects Manager and Alfredo Battiston Chief Draughtsman.

Although Bill Hudson left Saiccor at the end of July 1986, the accounts department was still adequately staffed with Scotch Duncan-Anderson, Trevor Larkan, Jimmy McInnes, Dave Clark, Reg Bartlett and Robin Pollock.

Kier Murray was the Chief Buyer and Mike McCann was the medical officer.

Bruce Peddie retired at the end of May 1987, having been in charge of fire, safety, and security since January 1984, before which he worked for many years as a Personnel Officer. When Bruce retired, Brian White was seconded from Courtaulds for three years as Saiccor's Safety Manager. Brian was a chemical engineer who had branched into safety fairly early in his career and had gained much safety experience at Courtaulds. Phil Glannister soon followed Brian as head of fire and security, a job in which he had gained much experience at Courtaulds.



Luigi Mazzaro



Barry Tokelove

The first major event to occur in the Mackenzie era was the pine run, although the planning had preceded him. In the middle of July 1987, 10 000 tons of debarked pine logs arrived at Saiccor. The plan was to chip all the logs and process all the chips as soon as possible, before they had a chance of turning 'blue'.

Cooking started on 20 July, and all seemed to be going well until the pine pulp reached the first pressure washer in the magnesium plant. The pine pulp drained so much better than *Eucalyptus* that the washer drum could not slow down far enough to keep it working properly. From there on it was one disaster after another. The poorly washed pulp came out of No 9 storage tower in slugs, as the tower has no mixer. Being so poorly washed, it could not be properly bleached – it was off colour and full of big shives (in addition the disc knotters could not handle the pine). The consistency of the feed to the machine was extremely variable, and although the sheet varied in thickness from tissue paper to board, it was tough enough not to break. The trial was abandoned as soon as the pulp came through bleaching, 450 tons were processed, all substandard. Half the pine chips were thrown away while the process was contaminated with pine shives for weeks. The trial was a disaster, but some important lessons were learned for a further trial, after all pine had been used successfully at Saiccor in the 1960s. But up to today no further trial has taken place.

The pine trial was just over, when, on 26 July, there was a huge electrical fire in No 19 substation. Damage was severe and took seven days to repair, during which time the entire calcium plant was out of action and some 7 000 t of pulp were lost.

On 11 September 1987 I had a visit from Ted Beesley and Rick Haggett. As Norman Boulter was on leave, they were reporting progress on the effluent pipeline to me. As far as I could ascertain, the pipe was ready to pull into the ocean but Ted and Rick wanted more time to do some final checking. Thinking they were procrastinating, I asked them to start the pull the next day. At 3.30



Work on the stainless steel effluent pipe at ND Engineering's workshops, 1987



Sections of the pipe on site, just before installation

pm my wife Yvonne, clutching a bottle of champagne (much to Franco Scarpa's protestations, as he thought there were much better uses for a bottle of champagne), clambered into the pipe trench to launch the pipeline, named 'Ted's Flute'.

A temporary jetty was specially constructed for the 'pulling' of the pipe. Contractors Smit Tak, under Cor Vermeer, were a very professional outfit, steadily pulling the pipe 3 km out to sea from 3.30 pm on 12 to 20 September, without any major problem. The landline was then laid and the new effluent pipeline was commissioned on 20 November 1987. This was a very successful project, coming in on time and within the R30 million budget, and complaints about effluent ceased until the Mkomazi plant was commissioned in 1995.

About a week after the laying of the new pipeline, 420 mm of rain fell in the Mkomazi catchment area, most of it between 25 and 29 September. The river level started rising steadily. By the morning of the 28th the level was looking dangerous and cooking was stopped. By 3.30 pm the rest of the factory was stopped. At 6 pm the water intake was abandoned as water was starting to run across the operating floor, which was normally some 8 m above the river level. The river flow reached a peak of 7 000 cumecs (250 000 cusecs), coming to within half a metre of the top of the berm on the west side of the factory, and dangerously close to flowing into the site at the woodyard.

The flood had wreaked havoc. The open effluent channel from the factory to the pumphouse (3,5 km) was filled with mud. The plastic lining in the channel had been ripped for 1 km, 1,1 km of rail line ballast had been damaged, the overhead power line to the effluent pumphouse was down for 1,5 km, and the walkway to the intake pumps and the sheet piling were destroyed. The new effluent pipeline



The temporary jetty constructed for the 'pulling' of the pipe by contractors Smit Tak



The plaque commemorating the launch of the effluent pipeline, 'Ted's Flute', on 12 September 1987



LEFT, the road bridge to Magabeni at the time of the flood and, RIGHT, under normal conditions



TOP, the factory at the time of the flood (downstream from the bridge) and, BOTTOM, under normal conditions

was 150 mm higher than intended in the surf zone, where mechanical trenching was hampered by flood debris.

The major undertaking was to clear the effluent channel. Since access to the channel was impossible for machines, the job had to be done by hand. As the factory had stopped operating, there were some 500 operating personnel available. Work could commence as soon as 500 shovels could be obtained. By one of the strangest coincidences imaginable, the small R & R Hardware store outside the factory (where the contractors' yard is today), had 400 shovels! Work commenced but the operators soon found the task heavy going and some started disappearing into the bush along the 3,5 km channel. After a few days it became necessary to hire casual labour through Murray & Roberts to complete the job.

The factory restarted slowly, on 10 October.

March 1988 marked the end of a poor financial year in terms of mill performance. Production was down at 1 041 t/d due to the pine trial, fires and the flood, which also had a detrimental effect on quality. Courtaulds, who at that stage accounted for 50 per cent of Saiccor's sales, were forced to buy pulp on the open market, while sales to external customers were postponed. Pulp prices however, were firm, giving record operating profits of R96 million.

Capital expenditure had been curtailed by Courtaulds from 1986, and only items considered essential were approved. Hence there were only a few projects initiated or completed in 1987/88.

■ The effluent pipeline was commissioned in November 1987.



TOP, debris on the beach and,
BOTTOM, the rail/road bridge at
the Mkomazi River mouth



The 500 operating personnel from the factory were set to task clearing the mud from the effluent channel after the flood.

- The replacement of No 7 digester in stainless steel was commissioned in September 1987. The request to replace No 6, the last low pressure digester, was not approved in two successive years.
- The elements in the evaporator had started tearing apart. Mondi had experienced the same problem at Richards Bay, and we concluded – although could not prove – that the elements were poorly manufactured in the UK. Replacement elements were ordered from Sumitomo in Japan in May 1988 for R12 million, which was more than the cost of the entire evaporator plant in 1983 (R10 million).



Cesare Mensi

At the start of the new financial year, Hector Mackenzie asked me what needed to be done to make 1 200 t/d. I again suggested 30-odd motor cars. Hector was quite receptive to the idea, but needed to clear it with Gordon Campbell, which I knew would be a stumbling block.

On Saturday 1 May 1988, Cesare Mensi died at work of natural causes. Cesare was born on 11 January 1927 in Torviscosa and came to Saiccor on 5 August 1954 as a fitter. He became expert in installing machine clothing and adhesives and despite being diabetic, would think nothing of working 40 hour stints – he was one of very few people flown from his holiday in Cape Town to deal with an emergency. A member of Martelossi's choir, he was President of the Italian Club at the time of his death.

Early in the new financial year I had an unexpected visit from Gordon Campbell. He firstly swore me to secrecy, then proceeded to say he was negotiating the sale of Saiccor to Sappi. As Sappi were not going to visit the site, he wanted me to confirm all Saiccor's assets with the lawyers. The reasons he gave for the sale were that the pulp business was not part of Courtaulds' core activities and they found it hard to come to terms with the capital intensity of the business. He felt Saiccor's future would be better served by someone like Sappi, who had a better understanding of the business, and its requirements. He emphasised that it was not for political reasons.

I went through the asset register with the lawyers and over the next few months negotiations took place. On 15 July 1988 the momentous announcement was made that Sappi was buying Saiccor.

The news created a great deal of uncertainty at Saiccor, although Hector Mackenzie soon sent out a notice to reassure employees, concluding: 'A takeover of one company by another is bound to be unsettling, but I genuinely believe that Sappi will invest more money than Courtaulds could, given the circumstances. This should be to the benefit of Saiccor and its employees provided our performance takes advantage of the new opportunities.'



Saiccor's management team at the time of the Sappi takeover in 1988 remained unchanged. BACK ROW, LEFT TO RIGHT: Bryan Thomas, Trevor Larkan, Andrew Carr, John Hinck, Andy Porter. FRONT ROW, LEFT TO RIGHT: Jack Ardé, Scotch Duncan-Anderson, Hector Mackenzie, Sinclair Stone and Chris Williamson

Eugene van As, Managing Director of Sappi, asserted: 'Sappi have acquired a successful business, and it is not their intention to ruin it by unnecessary interference.'

Eugene has been true to his word. The only change to Saiccor staff was the appointment of Roland Mazery as Managing Director designate to replace Hector Mackenzie when he reached retirement age on 1 June 1989.

Hector Mackenzie told *Sappi News* (September 1988): 'We are making so much money, we'll be an embarrassment to Courtaulds for having sold us. Saiccor is a tremendous investment.'

All Saiccor employees were fortunate in that all their conditions of employment were restated on the basis that if a Saiccor condition was better, they would keep it, if not they would change to the Sappi condition.

The Saiccor management team at the time of the takeover was left unchanged.

All staff positions were graded according to Peromnes, a Sappi practice, and all grade 7 and above positions received company motor cars. There were soon 30-odd new cars in the parking lot – and a feeling of 'justice at last'.

Sappi formally became the owners of Saiccor on 19 September 1988, and Usutu on 20 September 1988. The last 'old' Saiccor Board meeting

took place on 10 August 1988. At a dinner for the Board and Saiccor management preceding the meeting, Gordon Campbell thanked the IDC for being such a good partner over so many years. Koos van Rooy reciprocated for the IDC.

The *Business Day* on 29 August 1988 noted: 'Sappi shareholders have approved one of the largest transactions in the history of S.A. business – the R1,05 billion acquisition of control of Saiccor and Usutu Pulp.'

The *South African Industrial Mirror* (October 1988) went on:

'This (the acquisition) effectively puts Sappi in the big league of the world's top 25 paper producers and increases the group's turnover from the current R1 500 million to about R2 400 million. This latest expansion can be seen as the most important milestone in Sappi's history and transforms the company into one of the two mega powers in the South African industrial arena.

'Other effects of this dramatic expansion are that the number of Sappi employees has suddenly doubled from 12 000 to nearly 25 000 and that the total amount of timberland is increased from 156 000 hectares to 299 000 hectares. The takeover of these two companies has made Sappi the second biggest industrial group in South Africa – Sasol being the biggest – and bigger than competitor Mondi.'

Gavin Relly, then Chairman of Anglo American, commented that he was sorry he could not buy Saiccor for Mondi.

Over the next 10 years the acquisition of Saiccor helped Sappi buy other companies in the pulp and paper industry in Europe and the US, making Sappi the world's largest producer of coated wood-free fine paper.

The money Courtaulds received for Saiccor was invested in the chemical industry in the United States; but this did little to help the ailing giant. Part of the sale of Saiccor was a 10-year sales agreement in which Sappi would sell 200 000 t of pulp to Courtaulds at a discount of 20 per cent to the market price, with the discount steadily decreasing to 7,5 per cent over the 10 years. This went some way to help Courtaulds, but could not prevent its slow demise.

In his early days as Chairman of Courtaulds, Lord Kearton followed a strategy of vigorous expansion, building Courtaulds into a massive industrial conglomerate, one of the largest in the UK (which he held together), with 145 000 employees. In the last two years of Kearton's reign the company's earnings started to decline, which did not improve through 1976–1979 with Sir Arthur Knight at the helm. When Sir Christopher Hogg became Chairman in 1979, he changed Courtaulds' strategy. Each unit or company had to make a profit or close down. Although profits did eventually improve, the massive conglomerate started shrinking.

Why did Courtaulds sell Saiccor? Sir Christopher Hogg said at the time: 'This sale marks an important step in the evolution of

Courtaulds into a more focused, management intensive, growth company. Given the competing demands for investment from our other business sectors we decided some time ago that this business (wood pulp), despite its strength, could not offer Courtaulds a long term growth opportunity.'

By the time Saiccor was sold, the total number of people employed by Courtaulds had dropped to 45 000, and continued to fall until Courtaulds was bought by the Dutch company Akzo Nobel in June 1998 while Gordon Campbell was at the helm. In the early 1970s Courtaulds operated viscose mills at Grimsby, Greenfield and Carrickfergus in the UK, Calais in France, Mobile in the USA and in Canada, plus cellophane plants in Bridgwater and Barrow in the UK and in Canada. In 2001, the last remaining Courtaulds factories, Grimsby and finally Mobile (started in 1952), were shut down.

Shortly after the formal change of ownership on 19 September 1988, the Sappi Executive visited Saiccor – they seemed pleased with their purchase. In early October Saiccor hosted 150 delegates from the Sappi Management Conference, when Saiccor was warmly welcomed into the Sappi fold. Roland Mazery arrived at Saiccor on 1 November.

While the change of ownership was making headlines, life within Saiccor carried on as normal, with several improvements being made.

- In October 1988 a new Accuray digester computer was commissioned.
- Between 6 and 30 November 1988 the evaporator elements were replaced. The new Sumitomo elements consisted of two banks, one 12 ft long the other 24 ft long, the original elements were 36 ft long.
- The modified approach system for No 3 continua with fan pump and thickener was commissioned between 22 and 25 November 1988.
- Additional water softeners were commissioned in November 1988.
- A second-hand 10 t/h ball mill for crushing limestone was commissioned in March 1989. The limestone attritor that had 'crashed' so many times in its lifetime was finally laid to rest.

Saiccor presented its first budget to the Sappi Executive at the Johannesburg Head Office on 17 November 1988. The budget was well received and surprisingly the capital expenditure (including No 6 digester replacement) was accepted unchallenged. Noting the surprise, Eugene van As commented, 'I am quite willing to spend money if it makes money', a refreshing attitude not seen at Saiccor since the late 1970s.

The year 1989 marked 35 years service for those who came to Umkomaas in 1954 to build Saiccor, a proud moment for those men who were now no longer young.



1989 marked 35 years service for those who came to Umkomaas in 1954 to build Saiccor, a proud moment for those men who were now no longer young

In view of this pending anniversary, Hector Mackenzie's notice of 1 December 1988 appeared bizarre (remembering also that most of Natal regarded 2 January as a public holiday).

At the last meeting of the old Saiccor Board on Wednesday August 10th 1988, prior to ownership passing to Sappi, the then Chairman, Mr P J van Rooy proposed, and it was unanimously approved by the directors representing the Courtaulds Group and the Industrial Development Corporation of South Africa, that when a suitable opportunity arose their appreciation should be expressed in some tangible way to all employees for all they had done to contribute to the success of Saiccor.

As a small token of appreciation it has been decided that New Year's day which falls on a Sunday, and would not normally be enjoyed as a public holiday, will be transferred on this occasion to Monday 2nd January 1989, which will therefore be treated as a paid holiday.

As this was the only 'token' of appreciation for 35 years of success, the notice went down like a lead balloon.

The 11-month financial year ended successfully on 28 February 1989 (Sappi's year end). Production improved to average 1 086,4 t/d (95 per cent of budget) and firmer pulp prices resulted in operating income rising to R212 million (US\$90 million). Fifty per cent of sales were to Courtaulds.

In October 1988 there was a Courtaulds-Saiccor research meeting at Saiccor at which André Vlok, Sappi's Technical Director, facilitated. The meeting initiated a disagreement between Hector Mackenzie

and John Hinck, after which John left Saiccor. Bryan Thomas was appointed Technical Manager from 1 November 1988.

The relationship between Hector Mackenzie and Scotch Duncan-Anderson became strained and Scotch left in April 1989. Trevor Larkan was appointed Financial Manager from 1 May 1989.

Hector Mackenzie retired from Saiccor and Courtaulds at the end of May 1989 and returned to Grimsby (UK). Roland Mazery became Managing Director of Saiccor on 1 June 1989.

The Mazery Period (1989 –1996)

Although born in Mauritius on 15 August 1940, Roland Egon Jean-Marie Mazery was schooled in Bath, England, which gave him some English mannerisms but could not disguise his French temperament. He first joined Gencor's buying department before becoming Personal Assistant to Sappi's Managing Director, then General Manager of Sappi Cape Kraft, then General Manager of Sappi Tugela before becoming Managing Director of Saiccor on 1 June 1989.

Mazery was intelligent and highly reactive. Marcello Malpiedi described him as an 'unguided missile'. He had the courage of his strong convictions and always defended his people. He led Saiccor through a very active period and retired on 1 October 1996.



*Roland Egon Jean-Marie Mazery,
Managing Director 1989–1996*

At the start of his tenure the Board comprised: E van As (Chairman), R E J Mazery and J B Walmisley. * (*British)
In June 1991 Ian Heron was appointed Managing Director of Sappi South Africa and Chairman of Saiccor. An accountant, Ian had previously been the CEO of Southern Suns. At the same time the Saiccor Board was expanded to include B M Dick, I D Forbes, W E Hewitt, M P de Waard and A Vlok.

Other changes that took place were:

J B Walmisley resigned, June 1991

S L Stone appointed, January 1992

T L Larkan appointed, January 1992

Sappi Limited formed: E van As, W E Hewitt and A Vlok resigned from the Saiccor Board, 1993

M Malpiedi appointed, March 1994

T L Larkan resigned, September 1994

M W Turner appointed, June 1995

H Pienaar appointed, September 1995 – resigned September 1996

The Management Committee comprised:

Roland Mazery (Managing Director)

Sinclair Stone (Works Manager)

Trevor Larkan (Financial Manager)

Bryan Thomas (Technical Manager)

Chris Williamson (Engineering Manager)

Andrew Carr (Commercial Manager)

Andy Porter (Human Resources Manager)

Jack Ardé (Company Secretary)

The following changes occurred to the Management Committee over the Mazery period:

- In March 1990, Saiccor's shipping department transferred to Sappi International in Durban, to be managed by Andrew Carr, who left Saiccor .
- Trevor Larkan was promoted to Head Office at the end of 1992 and Mike Turner became Financial Manager on 1 February 1993. Mike started his career at Sappi as an accountant at Head Office, was then promoted to General Manager of Sappi Stanger for a few years, before joining Saiccor. Mike was appointed to the Saiccor Board in June 1995.
- Bryan Thomas retired on 1 April 1993 and was replaced by Derek Weightman.
- Derek was born on 14 April 1952 in York, England. He graduated from the University of Manchester, Institute of Science and Technology, in Chemistry in 1974, and joined Courtaulds as a research chemist. He was seconded to Saiccor in March 1977, also as a research chemist in the laboratory. He was appointed Chief



*Eugene van As, Chairman
1988-1991*



Jim Walmisley



Ian Heron, Chairman 1991-1996

Chemist on 1 July 1980, and on 1 May 1984 transferred to the plant as Assistant Technical Manager, then to Deputy Works Manager on 1 April 1987. Derek transferred to Usutu as Mill Manager in May 1990, returning to Saiccor on 1 February 1994 as Technical Manager. He was appointed to the Board in November 1997. He is a man with a high intelligence and a profound understanding of chemistry, a keen cricketer and an ardent supporter of Manchester United.

- Jack Ardé retired as Company Secretary on 1 April 1993 and was replaced by Graham Coxell, an accountant who had been Assistant Administration Manager at Majuba Colliery.

Most of the early Saiccor employees, with 30 to 40 years experience, retired between 1989 and 1996. Because of this and because of increasing legal requirements over the period, a number of changes were made in the management of the organisation. The business was to become increasingly complex.

When Derek Weightman transferred to Usutu as Mill Manager, the position of Deputy Works Manager was not filled.

Plant Managers were Martin Ferreira, Pulp Preparation (including Magnesium) and Mike Bentley for Pulp Finishing. Ciano Ioppo retired at the end of August 1992 and was replaced by Mike Bentley. Martin moved to Pulp Finishing and Peter Morris was appointed Plant Manager for Pulp Preparation. Martin retired on 1 December 1993 and Gary Bowles took over the position. Eddie Watson was appointed Plant Manager of the Mkomazi plant on 1 July 1993.

Production Managers were Martelossi, E Zan, Davey, Cudin, Baldo, Moro, Morris and Vice. Martelossi had a stroke, Zan, Davey, Cudin and Vice retired, and Morris was promoted – they were replaced by George Marshall, Wayne Weston, Eddie Watson, Andy Stretton, Eridanio di Marco and Tony Neave. Rowland Barnard and Neil Yelland served as Production Managers for a short time before resigning.

In October 1990, Assistant Engineering Managers were appointed: Garth James for Pulp Preparation (including magnesium), Owen Spence for Pulp Finishing and Graham Kelly for Services and Instruments.

Divisional Engineers were B Segatto, Biral, H Zan and Natali. All but Henry Zan retired and the following were appointed; Silvio Ceriani, Mike Cathro, Enoc Baldin, Bepi Trevisan and Alan Whelan. Lionel Davies was Services Engineer, Barry Tokelove Instruments Engineer and Luigi Mazzaro Building Manager. Jimmy McFeat was Electrical Engineer but retired on 1 October 1989. He was replaced by John Rea, who left in May 1990 and was replaced by Gary Bowles in November 1990.

Attilio Segatto retired at the end of March 1989 and Max de Robillard took over the management of the mechanical workshop



Mike Turner



Derek Weightman



Graham Coxell

before Attilio left. Pierre Auguste Maxime (Max) de Robillard was born in Mauritius and came to South Africa in 1954. He spent all his working life in engineering workshops, running his own business for a period.

Taking over Saiccor's workshop from 1 December 1987 was a great challenge, as over the previous 20 years most of the work had been done from memory or from the back of a 'cigarette box'. In addition to creating working drawings, Max introduced strict discipline and timekeeping, which was not easily accepted by the workforce. The 'removal of Max' was a frequent demand on placards at 'toyi-toyies', but over the years Max has created an ordered and efficient workshop.

Ciano Ioppo was Projects Manager but retired at the end of August 1992 and Mike Bentley took over. Tony Butler was Assistant Projects Manager and Alfredo Battiston was Chief Draughtsman. Alfredo retired at the end of February 1992 and Piero Simonetti became Chief Draughtsman.

To offer a greater support to our customers, Lester van Groeningen was appointed Technical Services Manager on 1 December 1990. Lester joined Saiccor's laboratory on 1 February 1977 while studying for his National Diploma in chemistry. He left Saiccor at the end of 1981 but returned at the beginning of 1983 when he completed his Higher National Diploma. He was appointed Chief Chemist on 1 May 1984, Technical Services Manager in December 1990, and Technical Services and Product Development Manager on 1 April 1993.

Derek Simpson became Laboratory Manager on 1 December 1990. Derek, a chemistry graduate, had grown up in Kenya and joined Saiccor on 1 April 1984 as a research chemist in the laboratory.

Ted Beesley officially retired in 1991. Alison Simpson (Malcolm's wife) joined Saiccor in June 1989 as a possible successor, but the Simpsons left for the UK at the end of September 1990. Derek Airey was engaged as an environmentalist to succeed Ted on 1 November 1990. Derek, a marine biologist, worked for the CSIR before joining Saiccor, where together with Allan Connell in 1985 he carried out a photographic survey of the Aliwal Shoal, and the wreck of the *Produce* for a comparison with a survey completed in 1980. They produced a book of beautiful underwater photographs, concluding that they 'could not find any evidence to show that life on the reef or the wreck is affected by Saiccor effluent.' Derek and photographer Peter Pinnock updated the book in 1995, finding sea life still unaffected.

Maurice Hart was appointed Commercial Manager on 1 September 1993. Maurice had joined Saiccor from Toyota on 1 August 1987 as IT Manager.

Jim Walmisley left SPT (Speciality Pulp Trading) and returned to the United Kingdom in June 1989. Hugh Martin, a member of the sales force at Sappi Kraft, took over as Managing Director of SPT and



'Max' de Robillard



Piero Simonetti



Lester van Groeningen



Derek Simpson

moved to Hong Kong on 1 April 1989, where he has remained ever since, making the position his own. Marcello Malpiedi guided Hugh into the dissolving pulp business and the two remained together until Marcello retired in 1993. Hugh, a Scot with a fine sense of humour and fun, is a man with definite opinions that he expresses freely. He has now looked after Saiccor and Usutu sales for 13 years.

Production stepped up a gear in 1989 and remained there through the years 1989–1994, averaging 1 175 t/d over the period – the ‘nameplate’ capacity of the mill. Record production was achieved in 1989, 1991 and 1992.

Year	Production t/d	Year	Production t/d
1988	1 080	1992	1 232
1989	1 181	1993	1 158
1990	1 142	1994	1 154
1991	1 181		

The reasons for the solid performance were good morale among the people and some capital expenditure. Naturally, the higher production translated into better operating profits, which made everybody happy. Although capital expenditure was designed to improve plant operation throughout the mill, there was somewhat more emphasis on improving cooking liquor concentrations to benefit cooking and increasing operating efficiencies by using more sophisticated electronic instrumentation (DCS). Some of the capital projects to come on stream were:

May 1989	Evaporator for lignosulphonates.
Mar 1990	Honeywell DCS for coal boilers.
Jun 1990	No 6 digester taken out of service, new No 6 digester operating 20 November 1990 – all digesters then 10 bar.
Oct 1990	No 5 Simon Carves sulphur burner started.
Dec 1990	Additional pressure tank (No 17) started
Feb 1991	New unitising line (No 3) started
Apr 1991	First new settling tank and second absorption tower in SO ₂ recovery started
May 1991	Digester fume extraction started
Jun 1991	Second new settling tank started
Aug 1991	Two extra absorption towers (Hagglund) installed
Nov 1991	Additional chip reclaimer started
Nov 1992	New 10 t/d continuous ClO ₂ plant and chlorate facility started. Roller mill for limestone started



Derek Airey



Maurice Hart



Hugh Martin

Feb 1993	Blow tank scrubber started
Mar 1993	New York chilling plant started
Jun 1993	Two cooking liquor storage tanks commissioned
Oct 1993	New water softeners started
Feb 1994	DCS for liquor plant commissioned

As part of the sales agreement with Courtaulds, pulp quality was to be no worse than that achieved in 1986 (1987 was discounted because of the pine trial and the flood), although Sappi would on a 'best endeavours' basis try to improve quality. Pulp quality over the period 1988–94 was relatively steady and quite similar to 1986, although silica increased marginally because of the higher production. Calcium improved with the use of soft water from bleaching onwards and lower pH's in the washing plants and spots reduced somewhat – operating No 2 second screening at lower consistencies had no effect on silicas.

	Silica ppm	Calcium ppm	Total Ash ppm	Resin %	Spots/m ²
1986	71	106	638	0.12	713
1989	86	74	785	0.12	545
1990	78	64	712	0.11	510
1991	71	64	703	0.13	391
1992	71	112	850	0.12	383
1993	85	104	932	0.13	290
1994	105	79	783	0.13	498

Despite quality being steady, Saiccor was under constant pressure from Courtaulds to improve quality. From the end of 1992 Courtaulds were told this would happen as a consequence of the major expansion that was about to take place.

In 1990 Saiccor embarked on a programme to achieve the Quality Management System ISO 9002 by the end of December 1992. Although Bryan Thomas had the overall responsibility for the programme, the bulk of the work fell to Analytical Chemist Alison Robson. By late 1992 it was realised that the system had grown too burdensome, and it would be necessary to start again. Although Alison continued to drive the programme, there was then a major contribution from line managers. ISO 9002 accreditation was obtained in April 1994.

Safety had tended to play second fiddle to production at Saiccor until Brian White was seconded from Courtaulds on 1 May 1987. Brian spent his first two years at Saiccor making people aware of safety, also undertaking the difficult task of trying to change the



Alison Robson

‘mind set’. In this period he introduced the wearing of hearing protection and escape respirators. In 1989 Brian started the NOSA safety programme and in September 1990 Saiccor received a 3-Star NOSA rating. Brian’s contract was completed in 1990 and he returned to Courtaulds.

Bryan Aldgate, from AECI in Umbogintwini, took over as Loss Control Manager (fire, safety and security) from Brian White and Phil Glannister. Bryan continued with the NOSA programme and in 1991 Saiccor received a 4-Star rating and in 1992 5-Stars, which was maintained until 1999 when the NOSA system was replaced by the Common Audit Process programme (CAP). In June 1992 a million hours worked without a disabling injury was achieved for the first time.

Another man who made a significant contribution to the safety programme from its very beginning was Cobus (Jacobus) Botha. Cobus joined Saiccor’s security department in 1982, and from 1984 looked after both fire and security, being groomed by Phil Glannister when he arrived in 1987. When Brian White left in 1990 Cobus took over as Safety Officer.

The summer rains of 1991/92 were poor. By April 1992 it was apparent that the barrage at the intake would not be sufficient to carry Saiccor through winter. Campbell Bernstein and Irving (CBI) were consulted and their dam builder extraordinaire, Eckhard Muller, soon reported that a 1,5 million m³ barrage could be built just downstream of the government’s gauging weir at Goodenough’s farm.

Moses Magubane went out to seek permission to build a dam from the local *amakosi*, who were quite happy. Ted Beesley and I then visited Bill Goodenough, the Indian farming community, and finally held an *ndaba* with the local community (most of whom were squatters). This was my introduction to an amazing and very different community that lived only some 10 km from Saiccor along the Hull Valley road from Roseneath.

Bill Goodenough was 79 years old at the time (born 25 September 1913) and totally deaf. In one hand he carried a notebook for people to write what they wanted to say, and in the other he always carried a gun, as he had once been attacked. Bill’s grandfather, an American missionary, had retired to the area to farm around 1912, and Bill’s parents had come from the USA in 1914 when Bill was a year old. In 1955 Bill and his father built an hydro-electric generator on the river’s edge from which they ran power to the house and powered farm machinery. The 1976 flood had filled the sump of the hydraulic drive with mud and it had not worked since.



Brian White



Bryan Aldgate



Jacobus (Cobus) Botha

Goodenough agreed to the dam, but asked if we could get his generator back in working order as he refused to buy power from Eskom. On examination the equipment was so old spares no longer existed. Goodenough was disappointed, but declined our offer of a new one – all he wanted was to see the equipment he had built with his father working again.

Bill never married, and after his parents died and his brother Kenneth moved away, he lived alone to the end of his days in the house above the gauging weir (which now bears his name – although the original Goodenough weir was at the dam wall where it was used to divert water to the water turbine). He died on 3 July 1996 aged 82.

The Indian farming community who had operated on the south bank at Fountainhead since the turn of the twentieth century were happy enough for a dam to be built, but wanted Saiccor to ensure a water supply and to look after their pumps at the dam. One of the most hospitable and enterprising of the farmers was Nad Govender, who, in addition to farming, operated a mobile ‘supermarket’ in the area and also had a vegetable shop in Umkomaas. He soon approached me about a job for his son Sukan, a chemical engineer, who at that time was working at Sasolburg. Once we received his CV, we offered Sukan a position, much to Nad’s delight. Sukan joined Saiccor on 1 November 1994 and was promoted to Production Manager on 1 September 1996. Sadly, Nad died suddenly on 24 September 1997 (his birthday).



Bill Goodenough



Sukan Govender (LEFT) and his father, Nad

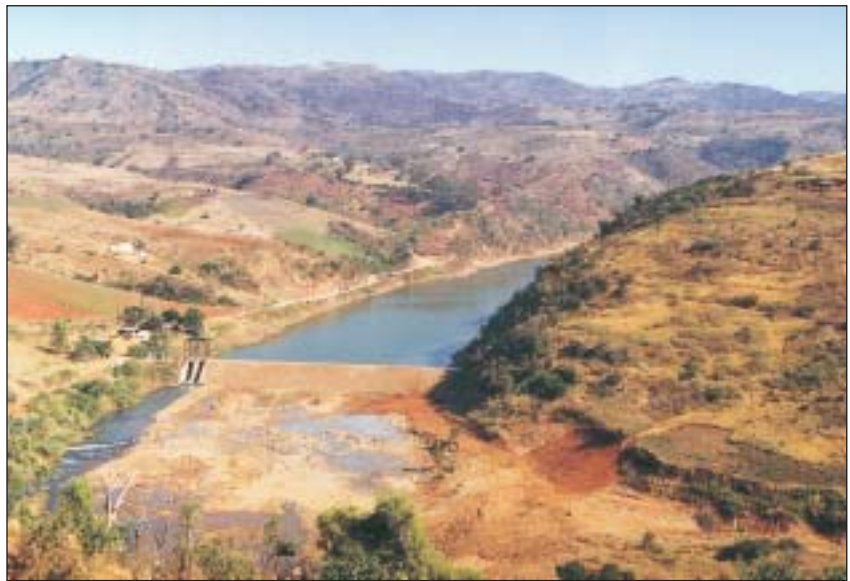
The *ndaba* with the local community took place on a Saturday morning at the junction of the roads going to Goodenough’s house and Goodenough’s weir. Ted Beesley, Moses Magubane and I were

present. There were about 10 people at first, but the number slowly swelled to around 100, surrounding us, with the ululating women at our backs and the men in front, raising one problem after another. The leader of the group was old man Mashaba, a squatter, who insisted on opening the meeting with a prayer, putting his teeth in his coat pocket to do so. This community raised a never-ending series of problems: How could they cross the river? Would the dam be fenced? As the road would be flooded, how could they travel along the south bank? How could they do their washing? What about their crops? (There were none at the time!) How could they drink the water, as it would be fouled by cattle? The list was endless, and after three hours we agreed to supply them with drinking water, make a path along the south bank, double up on the boat crossings and keep in touch with them on a daily basis to address any problems that arose. Eventually we had to walk away, as they could have sat all day.

Grinaker started building the wall for Goodenough's Dam on 4 May 1992 under the supervision of Eckhard Muller. A concrete slab 1 m high was first put across the river (at the site of the old Goodenough weir), then an earth wall with a steel gate was built, and finally a plastic sheet was placed over the upstream side of the wall. Water storage began on 1 June 1992, with the river flow at 64 cusecs (the factory requirement was 50 cusecs).

The dam enabled Saiccor to continue operating through the winter when the river flow dropped below the factory requirement. Shortly after the first summer rains in September, the river flow rose sharply. The water overflowed, breaching the dam, and the wall soon disappeared into the river downstream.

As the early summer rains of 1992/93 were again very poor,



Goodenough's Dam, built in 1992, enabled Saiccor to continue operating through the winter, when the river flow dropped below the factory requirement



The Goodenough Dam after the wall was breached a few months after completion, September 1992

Eckhard Muller scouted further upstream of Goodenough for another suitable dam site. He found one at Zamani, some 20 km upstream of the factory, but a great deal further by road via Dududu.

The factory was shut down on the morning of 9 November 1992 when the river flow dropped to 15 cusecs, but rain on the day allowed the factory to restart the following day. The mill ran very precariously through December when the river reached its lowest ever recorded level of 6 cusecs. In December the Saiccor Board agreed to spend R3,8 million building temporary dams at Zamani and Goodenough (some 3,7 million m³ of storage).

Grinaker arrived at Zamani in February 1993 with their huge scrapers to remove 'mountains', under the supervision of Eckhard Muller and CBI's site manager Tom Roering. Mike Bentley and Graham Kelly looked after Saiccor's interest (the scrapers were also used for making playing fields for local schools). Zamani Dam was completed on 30 March 1993, with full support and co-operation from *inkosi* Roy Bele.



Zamani Dam, earthworks in progress, 1993



Zamani Dam on completion, with water flowing over the spillway, 1993



Zamani Dam

Goodenough's Dam was rebuilt in May 1993, by which time the river flow had decreased to 60 cusecs.

On Youth Day (16 June), the commemoration of the 1976 Soweto riots, a saboteur cut the plastic sheet on the Goodenough Dam wall, destroying the dam. Grinakars rebuilt it in 10 days, as the earth was just downstream of the wall.

At the end of June the river flow was 46 cusecs, by the end of July 39 cusecs, with dam levels falling, and 26 cusecs by the end of August, when total storage remaining was 2,0 million m³. The storage dropped to 1,5 million by the end of September.

The summer rains arrived in October and breached the walls at Goodenough and the water intake. By December the water was flowing over the spillway at Zamani (up to 10 000 cusecs), but when the river flow reached 20 000 cusecs in February 1994 the wall was breached. The Zamani area was restored to its former state and the dam was never rebuilt.

Rebuilding of Goodenoughs started in May 1994, despite the numerous demands of the local community.

One morning in May 1994, Ngcobo, a squatter on the north bank, opened fire on Grinaker employees, who fled – abandoning their earth-moving equipment in the middle of the river. Ngcobo maintained Grinaker had no right to take his soil, but he readily accepted R10 000 for a sales deal. When the local *induna* dutifully came to claim his entitled share of the R10 000 and was informed Ngcobo had the money, he went in search of Ngcobo, only to discover that the payment had been made to the wrong Ngcobo. The situation was resolved through tribal justice to the satisfaction of all except the imposter!

Goodenoughs Dam was rebuilt by July 1994. The river flow dropped to 30 cusecs by October, remaining at that level through November and December. By December the water in the dam was exhausted, and it became necessary to release water from Sappi Forests' dam at Comrie to keep Saiccor operating. Nic Mostert, General Manager of Sappi Forests, was very happy, as he wanted to remove all the bass in Comrie to be able to restock with trout. Good rains in January brought the river flow to 16 000 cusecs, which again breached the wall at Goodenoughs.

Goodenough's Dam was again rebuilt in May 1995, by which time negotiations with the demanding locals had become a nightmare for Graham Kelly, who headed Saiccor's team. Water from the dam was used from October when the river flow reached 30 cusecs, but after good summer rains in December the wall was breached.

It has not been necessary to rebuild Goodenoughs since 1995. However, between 1992 and 1995 it seemed that Saiccor needed a permanent dam. CBI made a proposal for a 5 million m³ dam at



Nic Mostert

Goodenoughs for about R20 million in 1994. In 1995 Brown & Root made a proposal for a 10 million m³ off-river facility at Ngwadini for R83 million. Umgeni Water then wanted to form a joint venture with Saiccor – the size of the dam increased to 12 million m³ and the cost to R100 million. While the debate on the need for a dam went back and forth, the weather pattern was changing; the seasons were becoming wetter and the plans for a dam were put on the back burner.

By October 1988 the dust of the Sappi purchase of Saiccor had settled, making it propitious, I thought, to revitalise the other half of the 1982 magnesium plant proposal; the addition of a bleach plant and a pulp machine. Roland Mazery was supportive.

As Courtaulds had sold Saiccor, their commitment to the dissolving pulp business was then questionable, which made Saiccor vulnerable as Courtaulds was the only customer who could use ‘flock’ pulp. Therefore it seemed prudent to make the new pulp machine large enough to be able to close down the flock plant. I redid the 1982 design, this time for a 700 t/d pulp machine (rather than 500 t/d) and bleach plant. The calcium pulping plant would be taken to 1 000 t/d and the magnesium plant at 500 t/d for a total of 1 500 t/d (an increase of 300 t/d or 25 per cent).

Design Draughtsman Errol d’Oliveira produced new layout drawings, Ciano Ioppo established capital costs, Trevor Larkan performed the financial analysis and Ted Beesley wrote an environmental justification. The proposal was submitted to the first Sappi Saiccor Board meeting on 27 June 1989.

The proposal opened with the following statement:

An exciting opportunity exists to increase Saiccor’s output and profit while at the same time putting the company in a far sounder strategic position to meet the future with a more acceptable and better quality product. In addition there would be significant improvements in operating efficiencies and productivity.

The cost of the proposal was R263 million (base date February 1989, \$1 = R2,46).

Eugene van As queried whether there was sufficient timber available for the expansion. As he did not receive a satisfactory response, he arranged for Sappi Forests to conduct a survey, which indicated sufficient timber would be available from 1992. He then asked whether a consultant had vetted the proposal. As this had never crossed my mind, he informed me that no proposal of this magnitude would ever be approved without being vetted by a consultant.

Thys de Waard, Sappi’s Engineering Director, arranged for Swedish consultants Celpap to come to Saiccor to go through the proposal. Thys also sent his Chief Engineer, Colin Kerr, to Saiccor to direct Celpap. Colin was very experienced, having worked in all Sappi mills,



Errol d’Oliveira



Colin Kerr

the last as General Manager of Enstra, before he was transferred to Head Office.

Tjaart van der Walt, an experienced operations man in Sappi, assisted Colin, while Wayne Weston was transferred to the team to ensure Saiccor's requirements were retained.

Although the relationship between Colin Kerr and Celpap became strained, Celpap did produce a report supporting our proposal. Then Eugene van As asked why we had not considered expanding the capacity of the magnesium plant. Canadian consultants NLK were engaged, who a short while later merged with Celpap to form NLK-Celpap, an unhappy union that soon ended in separation, leaving both partners close to collapse. NLK started to look at the magnesium expansion but were diverted to looking at thermo-mechanical pulping for Saiccor. NLK had not produced a final report before the company started running out of capacity and had to abandon the project. Canadian consultants HA Simons were then engaged, with Keith Richardson and Kevin Cox leading their teams.

By this time (mid-1991) the expansion proposal had changed to 1 600 t/d for the total mill, with the new machine and bleach plant at 800 t/d. This was based on a suggestion from André Vlok that the machine be made 800 t/d, which he said would cost very little more than a 700t/d machine. André, who was then in his mid-50s, was technically the most knowledgeable man at Sappi, where he had been in various senior positions for 27 years. Until his retirement at the end of 1998 he was a great supporter of Saiccor, having joined the Board in June 1991.

Discussions with Gotaverken (the boiler supplier), confirmed that the recovery boiler could only be expanded by 30 per cent, equivalent to 150 t/d of magnesium pulp. Thus, the final proposal became a mill expansion of 400 t/d (150 t/d magnesium and 250 t/d calcium pulp to a nominal 1 600 t/d). This included a new 800 t/d bleach plant and pulp machine, the introduction of oxygen bleaching for all three bleach plants; for the magnesium plant an additional washer, evaporator and bigger pumps, motors and pipes, while the flock plant was to be shut down. After much discussion and debate Simons produced the final feasibility study on 3 June 1992, for R953 million (R2,76 = \$1). The proposal had four main goals: to increase output, to improve quality, to reduce Saiccor's environmental impact and to broaden the product range.

The proposal was approved in late November 1992. Thys de Waard and I were charged with setting up the project, which Thys named the 'Mkomazi Project' after the river. Thys, a mechanical engineer in his early 50s, had many years experience in the industry, having worked for Premier Paper (with Bill Hastie, Saiccor's first Works Manager, and Ugo Testa), before joining Sappi. He was technically very sound, a tough negotiator, and would not tolerate fools.



André Vlok



Thys de Waard



Andrea Rossi

Tragically, he died on 9 September 1997.

Thys and I went to Vancouver in February 1993 to finalise technical details for the equipment with potential suppliers and Simons, who by this stage had formed a joint venture with Swedish consultants AF-IPK. Tender documents were also prepared.

Simons-AF-IPK were selected as Project Managers and had an owners' team working with them. The owners' team was headed by Andrea Rossi, a 39-year-old electrical engineer from Thys de Waard's department, who had been deeply involved with projects. Andrea was a sound engineer and a capable manager.

Eddie Watson was the owners' team Project Manager for the bleach plant. Eddie first came to Saiccor in the early 1980s during his vacations from the University of Natal. He joined Saiccor on 1 February 1990 after completing his military service and Chemical Engineering degrees (including a thesis on viscosity control from Saiccor digesters). He was promoted to Plant Manager of the Mkomazi plant on 1 July 1993, and Projects Manager of Saiccor on 1 July 1996. Unfortunately Eddie left Saiccor at the end of December 1997 to start his own business. He was a very capable engineer and manager.

George Marshall was the owners' team Project Manager for the pulp machine. George was born in Benoni on 25 January 1962 but grew up in Port Elizabeth. After graduating as a chemical engineer from Stellenbosch, he worked on the mines before joining Saiccor on 2 January 1990. George was promoted to Production Manager of the pulp machines on 1 November 1990 and Senior Production Manager on 1 March 1994. He was appointed Plant Manager of Pulp Finishing on 1 July 1996 and General Manager of LignoTech South Africa on 1 September 2000. He is both technically very competent and a good manager.

Also part of the owners' team were Mike Howlett, Garth James, Silvio Ceriani and Andrew Hall (a young chemical engineer), and from Head Office on a part time basis Dick Sorenson, Tjaart van der Walt and Eric Rainey.

At the beginning of 1993 an experienced Project Manager from consultants Ekona was appointed overall Project Director. However he proved unsuitable and by May 1993, Brian Beard was appointed Project Director. Thys de Waard and I had met Brian, a Vice President of Simons, in Vancouver, where he had made a favourable impression. He was seconded to Saiccor for the project. Despite being very much an 'eight to five' man, Brian did all that was required to hold the project together. A flying enthusiast, he managed in his spare time from the project to have an out of commission Harvard refurbished, taking it back to Canada as a new plane.

The Simons' project team of some 40 people arrived in the second quarter of 1993. The team was supplemented by local technicians



Eddie Watson



George Marshall



Brian Beard

and administrators, which together with the owners' team made up a total project team of some 70 people. This was a huge number in comparison to Saiccor's previous projects, particularly in relation to the 1983 magnesium plant, which was a similar size project as well as being far more complex from a process point of view. The direct cost for Simons ended up at R55 million.

Kevin Cox, a civil engineer from New Zealand, was the Simons' Project Manager, and Laird Paton, an experienced Canadian site man, was Construction Manager. Bill Weggelaar, a South African, was hired as Financial and Administration Manager.

The project was directed by a steering committee, which met monthly. The committee comprised Ian Heron, Roland Mazery, Thys de Waard, Sinclair Stone, Mike Turner, André Vlok (occasional), Brian Beard and Bill Weggelaar. In addition there was a management committee that met weekly, comprising Brian Beard, Kevin Cox, Sinclair Stone, Andrea Rossi, Bill Weggelaar and occasionally Thys de Waard.



Scrapers from Grinakkers preparing the construction site for the Mkomazi project,



The construction site of the Mkomazi project, (left) looking east and (right) looking west, 1993

The earthworks contract was awarded to Grinakars, who in April 1993 brought their scrapers from Zamani Dam to remove the hillside opposite the woodyard and prepare the site for the Mkomazi project, which they had completed by August 1993.

Contracts for plant and equipment were awarded from May 1993 – pulp machine to Valmet, bleach plant and evaporator to Ahlstrom, digesters to ND Engineering, washer for magnesium plant and No 5 chipping line to Sunds, process control system to ABB, electrics to Siemens and civils to LTA. Valmet and Ahlstrom subcontracted their construction work to ND Engineering while UIC undertook the instrumentation installation.

Civil work started in October 1993 and was 55 per cent complete by the time equipment started to arrive in February 1994. By April civil work was 80 per cent complete and construction was in full swing – No 22 digester was cold-stretched. By July the civil work was complete while the overall project was 60 per cent complete. By September the overall project was 78 per cent complete – the evaporator and No 21 digester were in operation.

At the end of October 1994, the project was 90 per cent complete. Water runs started on the pulp machine (No 4 continua), while all three new digesters were in operation. No 4 continua had pulp on the wire on 21 November 1994 and the first bale was produced on 27 November. No 4 washer (magnesium plant) was commissioned on 14 December, No 5 chipping line on 24 December and No 3 bleaching on 10 January 1995.

As the Mkomazi plant was then in operation, the last ton of flock pulp was made on 17 January



The Mkomazi plant in operation, (FROM TOP TO BOTTOM) January 1995, July 1994, October 1994, December 1994



PM4 drying machine

1995, ending a 37-year-old enterprise that never quite achieved the success its originators envisaged.

The Mkomazi project was completed on time and within budget – the final cost of R856 million was some R100 million below budget, largely as a result of lower than anticipated prices for the main equipment (here credit is due to the commercial team of Ian Heron, Roland Mazery, Mike Turner and Roy Sukaram).

Although No 4 continua started up well, sheet breaks began occurring after two months and increased significantly over the next two months. By June 1995, the problems had been identified as resin on the wire, causing it to vibrate, and inadequate mixing of pulp and



The magnesium and Mkomazi plants dominate the Saiccor skyline

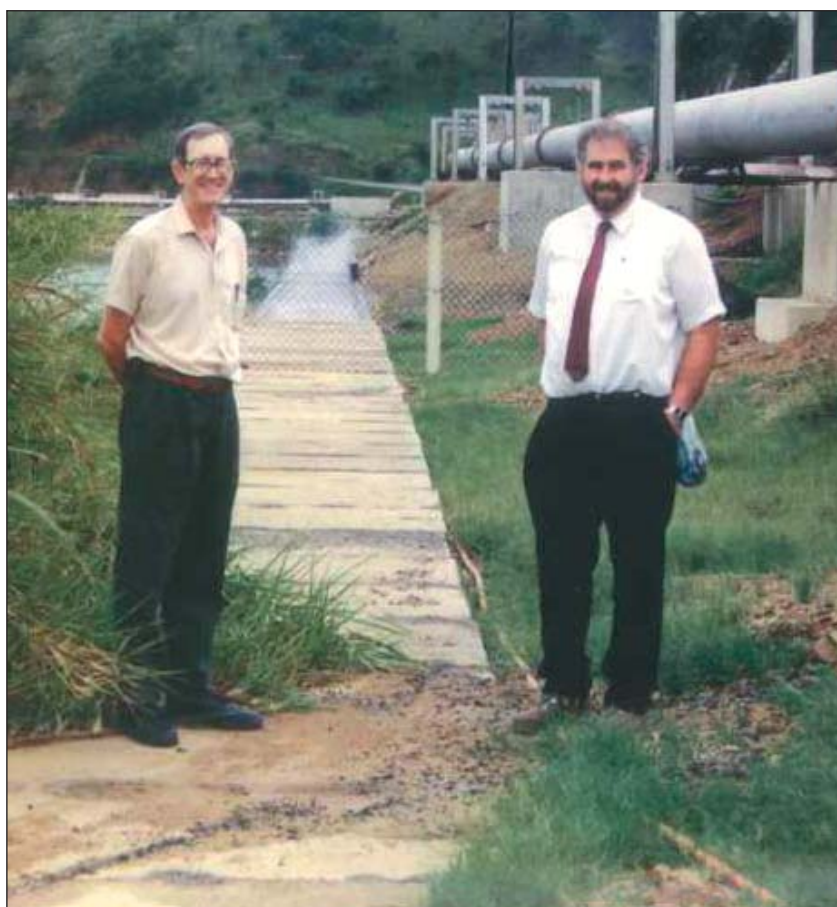
water in the fan pump-mixing tank, leading to folding of the sheet out of the dryer. The first problem was solved in the short term by washing the wire regularly with paraffin and in the long term by changing the type of vacuum boxes and the material of their covers. Increasing the pulp velocity into the mixing tank solved the mixing problem. By July 1995 the production from No 4 continua started increasing, reaching design levels by August. No 3 bleaching experienced few start up problems. The mill averaged over 1 600 t/d for a month for the first time in November 1995.

Towards the end of 1994 it was agreed to add two complimentary projects to Mkomazi. First, to replace the old open effluent channel from the factory to the pumphouse (3,5 km) with a pipeline (new pumps to be located within the factory) at a cost of R45 million, and, second, to automate the digester operations at a cost of R30 million.

Stainless steel for the 900 mm diameter effluent pipe was made by Columbus, the pipeline was manufactured by Hall Longmore and the installation was carried out by Rotek (albeit very slowly). Mike Bentley and Kevin Cox managed the project with CBI as consultants. The new effluent pumps and pipeline were in operation from 12 February 1996.

For the digester automation all valves had to be automated. At the same time Andy Stretton drew up a functional specification detailing every phase of the digester operation which Don Wheeler and ABB (largely Paul Turco, son of Ennio and Sheryl) translated into ABB software for the new ABB control system. Richard Johnson of ABB transferred the old Accuray control system into the new ABB system. The first digester was automated in January 1996, the others slowly followed, and the last (No 15) was completed on 11 October 1996.

Dissolving pulp prices started rising at an unprecedented rate in the second half of 1994 from a low of \$490 per ton to record heights of \$1 100 per ton in the last quarter of 1995. The commissioning of the Mkomazi plant was perfectly timed ('happenstance') to take



Mike Bentley (LEFT) and Kevin Cox

advantage of the rising prices. As Saiccor's production increased to 1 600 t/d in the last quarter of 1995, profits soared (average production for 1995 was 1 400 t/d).

However, in December 1995 the market turned down as sharply as it had turned up in the second half of 1994. Dissolving pulp prices plummeted as demand for pulp fell steeply. From 18 December 1995 Saiccor's production was reduced to 1 000 t/d because of market conditions (Nos 1 and 2 continua machines were shut down). As a slow-down had never occurred in Saiccor's 41-year history, it had a debilitating effect on people and plant. No 2 continua was restarted in May 1996 and No 1 in July 1996. Average production for 1996 was 1 173 t/d.

With the advent of the Mkomazi plant, some aspects of pulp quality improved significantly, namely spots and resin, largely as a result of replacing chlorine in the bleaching plant with oxygen and chlorine dioxide. Disappointingly, calcium levels did not drop as expected and by 1996 it was decided to reduce pH's in first screening and the first chlorine dioxide stage of bleaching. In mid-1996 schemes were being drawn up to improve silica and ash – a capital application for three projects was submitted in October 1996 to install a clarifier in the woodyard (to be able to use more water for washing logs), a filter for calcium cooking liquor, and a demin plant for bleach plant wash water, at a total cost of R27 million.

Year	Silica ppm	Calcium ppm	Ash ppm	Resin %	Spots /m ²
1994	105	115	783	0.13	498
1995	105	126	884	0.10	180
1996	105	50	732	0.07	34

In 1995, Saiccor produced commercial quantities of viscose quality rolls and 94 alpha bales and rolls for the first time (from the Mkomazi plant).

Although the Mkomazi plant made Saiccor's operation more environmentally friendly (by replacing chlorine with oxygen and chlorine dioxide), there was growing pressure from the local communities for Saiccor to reduce atmospheric emissions. A number of projects were initiated to do this:

- The effluent pipe to replace the open channel
- A sixth venturi in the magnesium plant
- A liquor storage tank in SO₂ Recovery
- A scrubber for No 1 and No 2 bleaching
- A low concentration gas collection system

These projects were all commissioned by February 1997 and sulphur dioxide emissions were down to 20 per cent of what they were in 1986.

Shortly after the start-up of the Mkomazi plant, complaints were received from sea users about increased visibility of Saiccor effluent in the ocean. The complaints intensified over the next few months, fuelled by Glen Jansen, a part-time fisherman who felt passionately about the sea and was vociferous about Saiccor effluent polluting the ocean. He produced bumper stickers at his own expense, castigated the Department of Water Affairs for allowing Saiccor to continue operating and garnered support to help sway public opinion. He was rational but passionate, and despite numerous discussions with senior Saiccor personnel, persisted with his campaign.

As a result of the growing public outcry over effluent, the then Minister of Water Affairs and Forestry, Prof. Kader Asmal, and his Chief Director: Scientific Mr van der Merwe, visited Saiccor on 10 October 1995. The Minister wanted a written undertaking from the Chairman (Ian Heron), that Saiccor would either convert from calcium to magnesium pulping by June 1999, or extend the effluent pipeline to 7 km.

It was soon established that the cost of converting from calcium to magnesium was prohibitive, with very little economic benefit. Alternative solutions were then examined, including removal of lignosulphonates, ultrafiltration, reverse osmosis, chemical treatment and extending the effluent pipeline.

On 10 May 1996 Prof. Asmal established the South Coast Marine Pipeline Forum (SCMPF), the aim of which was to improve the quality of sea water along the South Coast through acceptable solutions gained through negotiations between all the stakeholders. The Charter for SCMPF was signed by the Minister, Sappi Saiccor, AECI, Tioxide, the community and the media. It demanded all stakeholders to be open and honest. In addition industry would aim to continuously improve their effluent quality, the Department of Water Affairs would facilitate SCMPF and continue to equitably manage water quality issues, and the media would report fairly and accurately. At the signing ceremony, the Minister stressed that while environmental issues were important, it should be kept in mind that there was a high level of unemployment in South Africa, and that a good balance between environmental issues and economic growth needed to be maintained. The Minister also made it known that he had given Sappi Saiccor more time to conduct studies into alternative effluent disposal methods. The Minister then instructed each industry to form a Permit Advisory Panel (PAP), made up of members from the industry and from all interested and affected parties, to advise his Department on permit conditions. The first Saiccor PAP meeting took place in April 1997.

During the first two years, SCMPF meetings were preoccupied with severe criticism of Saiccor's effluent disposal.



Glen Jansen launched a vigorous campaign against Saiccor effluent from 1995 to 1999



Visit of the Premier of KwaZulu Natal, Dr Frank Mdlalose, to Saiccor in June 1996. LEFT TO RIGHT: Eric Ngubane, private secretary to the Premier, Divas Mncwabe, Jerome Mshengu, Mayor of Southern Sub-Structure, Sinclair Stone and Dr Frank Mdlalose.

In July 1996 Roland Mazery proposed to the Department of Water Affairs and Forestry in Durban that Saiccor would solve the effluent problem by building a 55 000 t/a lignosulphonate plant. The capacity of the plant would be expanded by 55 000 t/a approximately every three years up to 350 000 t/a after 10 to 12 years. The Department found the timing of the proposal unacceptable – ‘too little too late’. Complaints about effluent in the ocean from the public and the press continued to rage for the next six months.

In June 1996, Divas Mncwabe, a Saiccor electrician and part-time IFP politician, arranged for the Premier of KwaZulu Natal, Dr Frank Mdlalose, to visit Saiccor. After his visit the Premier said that Sappi Saiccor gave South Africa a high ranking in the world achievement stakes. He said it was a big plus that South Africa, and KwaZulu Natal in particular, had an industry leader of such magnitude. Dr Mdlalose lauded the company’s fulltime employment of 1 250 people, as each employed person supported nine others.

Ian Heron resigned from Sappi at the end of 1995 and was replaced by Ian Forbes, who had been Managing Director of Sappi Kraft.

Andy Porter retired at the end of March 1996, and was replaced as Human Resources Manager by Alistair McGregor who had joined Saiccor on 1 April 1989 as Personnel Officer.

Chris Williamson relinquished his responsibilities as Engineering Manager to look after special projects at the end of June 1996. Gary Bowles became Engineering Manager.

Gary Bowles was born on 26 January 1960 in Harding. After graduating as an electrical engineer from the University of Natal, he worked at the sugar mill at Darnall before joining Saiccor on 1 November 1990 as Electrical Engineer. He moved to production on 1 December 1993 as Plant Manager for Pulp Finishing, and on 1 July 1996 was appointed Engineering Manager. Gary is a sound electrical engineer, with management skills and an ability to achieve results. He is also a keen and strong sportsman.

In view of the intense pressure from the public and the authorities on environmental issues, Mike Bentley was appointed Environmental Manager on 1 July 1996. Born in Cape Town on 15 May 1945, Mike grew up in Tongaat. He joined Sappi Tugela as an Instrument Technician in 1972. Tugela allowed him to attend the University of Natal between 1974 and 1978, where he obtained his degree in Electrical Engineering. Mike joined Saiccor on 1 January 1980 as Divisional Engineer of Bleaching. In 1982 he took charge of the project to computerise the planned maintenance programme of the factory. In January 1983 he was appointed Assistant Technical Manager (Plant Manager) of Pulp Preparation, and on 1 April 1987 for Pulp Finishing. He was appointed Projects Manager on 1 September 1992. Mike is a sound and competent engineer with a very analytical approach, which



Alistair McGregor



Gary Bowles



Mike Bentley

on occasions has led to him being considered 'laid back'. He is a wildlife enthusiast in his spare time.

Eddie Watson replaced Mike Bentley as Projects Manager on 1 July 1996. Peter Morris was transferred to Plant Manager of the magnesium and Mkomazi plants on 1 July 1996. At the same time, George Marshall and Andy Stretton were appointed Plant Managers of Pulp Finishing and Pulp Preparation respectively. Tony Neave, John Herd and Gary Coutts were appointed Senior Production Managers on 1 January 1998.

When the Mkomazi plant was started (January 1995), Garth James was transferred as Assistant Engineering Manager to the magnesium and Mkomazi plants. Henry Zan replaced Garth in Pulp Preparation. Owen Spence resigned in February 1995, as did Divisional Engineer Mike Cathro, in May 1995. Silvio Ceriani was appointed Assistant Engineering Manager on 1 September 1995. Silvio joined Saiccor on 13 February 1985 as a trainee Mechanical Technician while he completed his National diploma, which he did at the end of 1986. He was appointed Assistant Divisional Engineer in March 1989 and Divisional Engineer of Nos 1 2 and 3 continuas in November 1990. He resigned at the end of 1997 at the age of 35 to seek his fortune elsewhere.

Graham Kelly was Assistant Engineering Manager for Services and Instruments.

Garth James resigned at the end of June 1996 and was replaced by Greg Taylor. Greg, a mechanical engineer from the University of Natal, was born in Durban on 4 September 1963. He joined Saiccor from Usko (where he had been Maintenance Manager at Vereeniging), on 1 November 1995 as an Assistant Engineering Manager. He was appointed Services Manager on 1 August 2000.

As regards labour relations during the Mazery period, by 1990 Sam Kikene's Dissolving Pulp and Allied Workers Union (DPAWU) had started to feel the pressure of the ANC/IFP political tension that had developed in Southern Natal. In October 1990 Douglas Makhaye, the Chairman of the Saiccor DPAWU's shop stewards' committee, was murdered on his way home from work. The DPAWU was shattered and weakened. By 1991 rival union PPWAWU (Pulp Paper Wood and Allied Workers Union), a COSATU affiliate, had become the majority union at Saiccor.

PPWAWU were a more professional and better trained organisation than the DPAWU. Negotiations with PPWAWU were far more aggressive. PPWAWU soon demonstrated their strength by conducting stayaways, sit-ins, 'toi-toying' and the first aggressive illegal strike between 3 and 7 June 1994 over the demand for a R3,50 shift allowance. There was a 12-hour strike on 3 June 1996, for the removal



Silvio Ceriani



Greg Taylor

of Max de Robillard, manager of the mechanical workshop, forcing Saiccor to shutdown. The wage negotiations in 1996 broke down in September. The wage earners went on a legal strike on 5 September 1996, leaving only the magnesium plant, No 3 bleaching and No 4 continua being operated by non strikers. The wage earners returned to work on 25 September for the same conditions that had been offered before the strike commenced and Saiccor reduced its high level of finished stock.

Roland Mazery announced his retirement quite unexpectedly in May 1996. He left Saiccor at the end of September 1996 and was replaced by Alan Tubb.

The Tubb Period (1996 –)

Alan David Tubb was born in Durban on 26 December 1950. He matriculated at Glenwood High School, and obtained an Electrical Engineering degree from the University of Natal. Alan worked on the Western Deep gold mine before joining Sappi Tugela in 1980, where he became Engineering Manager. He transferred to Sappi Ngodwana in 1987 as Mill Manager, becoming General Manager in 1989. He was appointed Managing Director of Saiccor from 1 October 1996. He is a pragmatic manager with a good understanding of human nature. He is also a fervent rugby supporter (Sharks) and a very keen surf angler.



Alan David Tubb, Managing Director 1996-

At the time of Tubb's appointment, the Board comprised ID Forbes (Chairman), AD Tubb (Managing Director), MP de Waard, M Malpiedi (Italy), SL Stone and MW Turner.

The following changes occurred over the period:

C Mowatt appointed, November 1996

M P de Waard died, September 1997

D A Weightman appointed November 1997

A J W van der Merwe appointed, July 1998

I D Forbes resigned, September 1999

J L Job appointed Chairman, October 1999

The Management Committee comprised:

Alan Tubb (Managing Director)

Sinclair Stone (Works Director)

Colin Mowatt (Financial Director)

Derek Weightman (Technical Manager)

Gary Bowles (Engineering Manager)

Alistair McGregor (Human Resources Manager)

Graham Coxell (Company Secretary)

Colin Mowatt joined Saiccor on 1 November 1996 as Financial Director. Colin was born and bred in Edenvale, matriculating from St Benedicts College in Bedfordview. He has an accounting degree and is a qualified chartered accountant. Colin joined Sappi in Johannesburg in June 1993 as the Group Financial Controller. A sharp accountant with an understanding of how a business works, Colin has a fine sense of humour and fun and is an ardent supporter of Chelsea Football Club.

The following changes have occurred to the Management Committee during Alan Tubb's tenure:

- Gunther Garz was appointed Marketing Manager on 12 February 1998. Gunther joined Saiccor in 1984, spent the next three years studying for his Chemical Engineering diploma and in April 1987 was transferred to the technical department. In September 1993 Gunther transferred to Hong Kong, where for the next four and a half years he was part of Hugh Martin's sales team. He transferred to Zurich at the end of 2000.
- Alistair McGregor transferred to Usutu as Human Resources Manager at the end of January 1999 and was replaced by Ryan Kerr on 1 February 1999. Ryan was previously Human Resources Manager at Sappi Cape Kraft.

Plant Managers were Peter Morris, George Marshall and Andy Stretton.



*Ian Forbes, Chairman,
1996-1999*



John Job, Chairman 1999-



Colin Mowatt

Senior Production Managers were Tony Neave, Gary Coutts and John Herd.

Assistant Engineering Managers were Graham Kelly, Greg Taylor, Silvio Ceriani and Henry Zan. Lionel Davies was Services Manager, Stuart Watson Electrical Engineer, Ken Toward Instruments Engineer (appointed 1 March 1996 after joining as a Technician in May 1990), Max de Robillard was Workshop Manager and Luigi Mazzaro Building Manager.

When Silvio Ceriani resigned at the end of 1997 he was replaced by Bernard Jorgensen-Lian. Bernard was born in Cape Town on 3 April 1958 and joined Saiccor on 1 January 1984 as a trainee Mechanical Technician, having completed the academic requirement for his T4. He was appointed Mechanical Technician on 1 August 1985, Divisional Engineer Pulp Preparation on 1 November 1990, and Divisional Engineer Mkomazi on 1 September 1995.

Eddie Watson was Projects Manager but resigned at the end of 1997 and was replaced by Tony Butler from 1 January 1998. Tony was born in Albany in the Eastern Cape on 22 November 1946 (a nephew of the South African writer Guy Butler). He completed his Chemical Engineering degree at the University of Cape Town and joined Saiccor's process investigation department in June 1971. He left Saiccor in March 1976 to work in the pharmaceutical industry in England for six years. He sailed himself back to South Africa in a yacht, rejoining Saiccor on 6 September 1982. He was appointed Assistant Projects Manager on 1 October 1983.

Piero Simonetti was Chief Draughtsman and Errol D'Oliveira the Senior Draughtsman.

Maurice Hart was Commercial Manager, Harry Byrne IT Manager, Darrell Webb Purchasing Manager, Jacqui Bertossi Personnel Manager and Kevin Rainier Medical Officer.

The year 1997 was a splendid year of healthy profits and production records – 559 337 tons for the year, 2 072 tons in a day, 1 700 tons/day in a month, No 4 continua 1 028 tons in a day, No 3 continua 706 tons in a day, 62 cooks in a day and 767 tons magnesium pulp in a day. By the end of the year however, the dissolving pulp market had softened, prices started falling, finished pulp stocks rose and by January 1998 it became necessary to reduce production to 1 300 tons/day by shutting down No 1 and No 2 continuas and No 1 bleaching.

Production was restricted to 1 300 t/d through 1998 and 1999, but early in 2000 the dissolving pulp market firmed. By March 2000 it was decided to restart No 2 continua and No 1 bleaching. As these plants had been idle for just over two years, it was estimated that it would take six weeks to get them back into production, and another six weeks to reach full production. However, thanks to



Gunther Garz



Ryan Kerr



Bernard Jorgensen-Lian

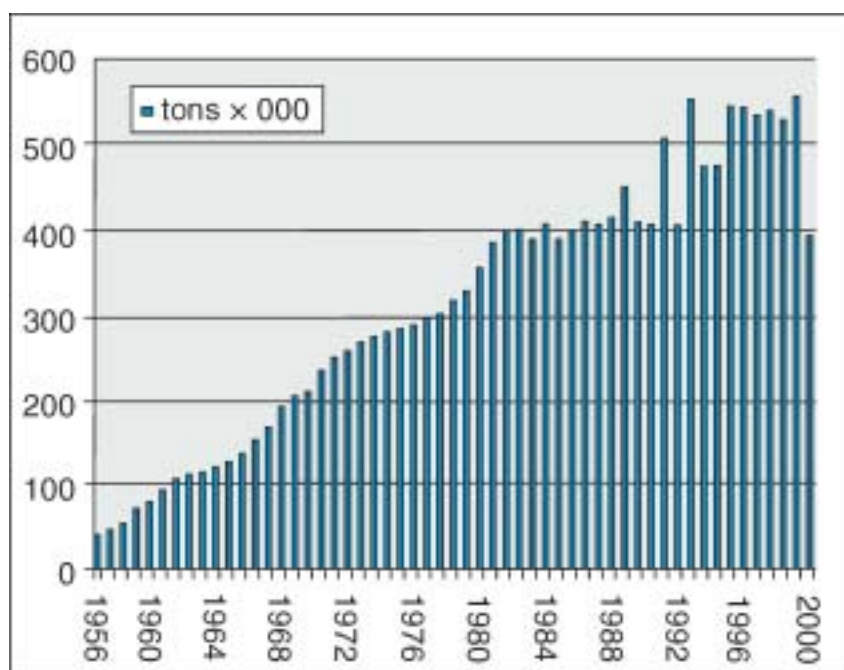


Tony Butler

outstanding work by the engineering, production and personnel departments, full production was achieved after only half the estimated period, in May 2000. By this time production was back to the 'nameplate' capacity of 1 600 t/d, with an average of 1 509 t/d for the year, making the year 2000 one of the best, in all respects, in Saiccor's history. The Chairman, Dr John Job, described Saiccor's overall performance as 'exemplary'. Alas, by 2001 the dissolving pulp market had again weakened and by the end of February 2001 production was reduced to 1 300 t/d by again shutting down No 2 continua and No 1 bleaching. Further weakening of the market forced production down to 950 t/d from July 2001, with an average of 1 092 t/d for the year.

Year	Production (t/d)
1996	1173
1997	1537
1998	1299
1999	1301
2000	1509
2001	1092

Apart from the fluctuations in production over the last six years as a result of market variability, Saiccor's production has grown steadily throughout its history.



Saiccor production levels 1956-2000

When the dissolving pulp market firmed in early 2000, it seemed opportune to look at expansion plans for Saiccor.

Saiccor's senior management prepared detailed feasibility studies for a 160 t/d expansion through either an increase in calcium/magnesium pulping (R640 million, R7,5 = U\$1,00), or an increase in magnesium pulping only (R1 240 million, R7,5 = U\$1,00). However the dissolving pulp market softened before these proposals could be submitted to the Board. The proposals now sit on the 'shelf' waiting for a favourable market.

The capital application for R27 million to improve pulp quality (to reduce silica and ash) was submitted in October 1996 and was approved in March 1997. Three projects were involved:

- Clarifier in the woodyard – to be able to increase the amount of water used for washing logs by using cleaned recycle water, and thereby not increasing the usage of fresh water.
- A filter for calcium cooking liquor – to remove the silica impurity in limestone.
- A demin plant – to enable pure water to be used in the process from bleaching onwards.

The clarifier was commissioned on 17 October 1997, the demin plant on 12 January 1998 and the liquor filter on 9 March 1998. These projects immediately lowered silica and ash; however, as they were all commissioned within six months of each other, it has never been possible to determine the benefit of each individual project. From 1998, pulp quality parameters remained excellent.

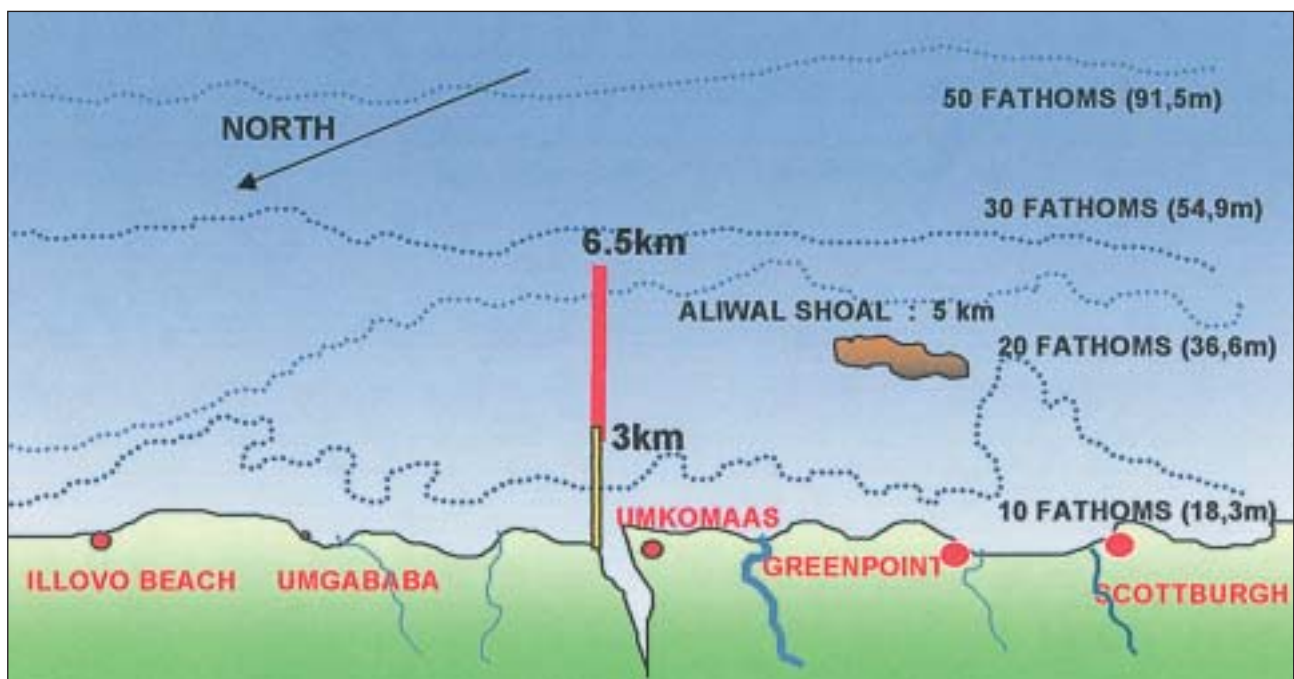
Year	Silica ppm	Calcium ppm	Ash ppm	Resin %	Spots/per m ²
1996	105	50	732	0.07	34
1997	86	44	666	0.08	20
1998	49	33	469	0.07	23
1999	48	32	446	0.07	22
2000	44	30	359	0.07	31
2001	37	22	292	0.07	25

By 1998 Saiccor's pulp quality was as good as any in the world, and in fact had become the 'benchmark' pulp for many dissolving pulp customers. The improvement in the quality is very noticeable when comparing the parameters in 1976 and 2001.

Year	Silica ppm	Calcium ppm	Ash ppm	Resin %	Spots/per m ²
1976	60	647	1 470	0.29	1646
2001	37	22	292	0.07	25

In addition to the improvements to fundamental pulp quality over the period 1998 to 2001, significant progress was also made in the manufacture of speciality pulps, namely 94 alpha, and by 2001, 96 alpha pulps largely in reels for lyocell and acetate. Progress was a result of considerable research work to adapt Saiccor pulp to new processes (notably Ian Graveson's research for lyocell, and Mohamed Mansoor's for acetate), and improving the runnability of No 4 continua to handle these soft and difficult pulps (Peter Morris and his teams at the Mkomazi plant made vital improvements to both the bleach plant and the pulp machine).

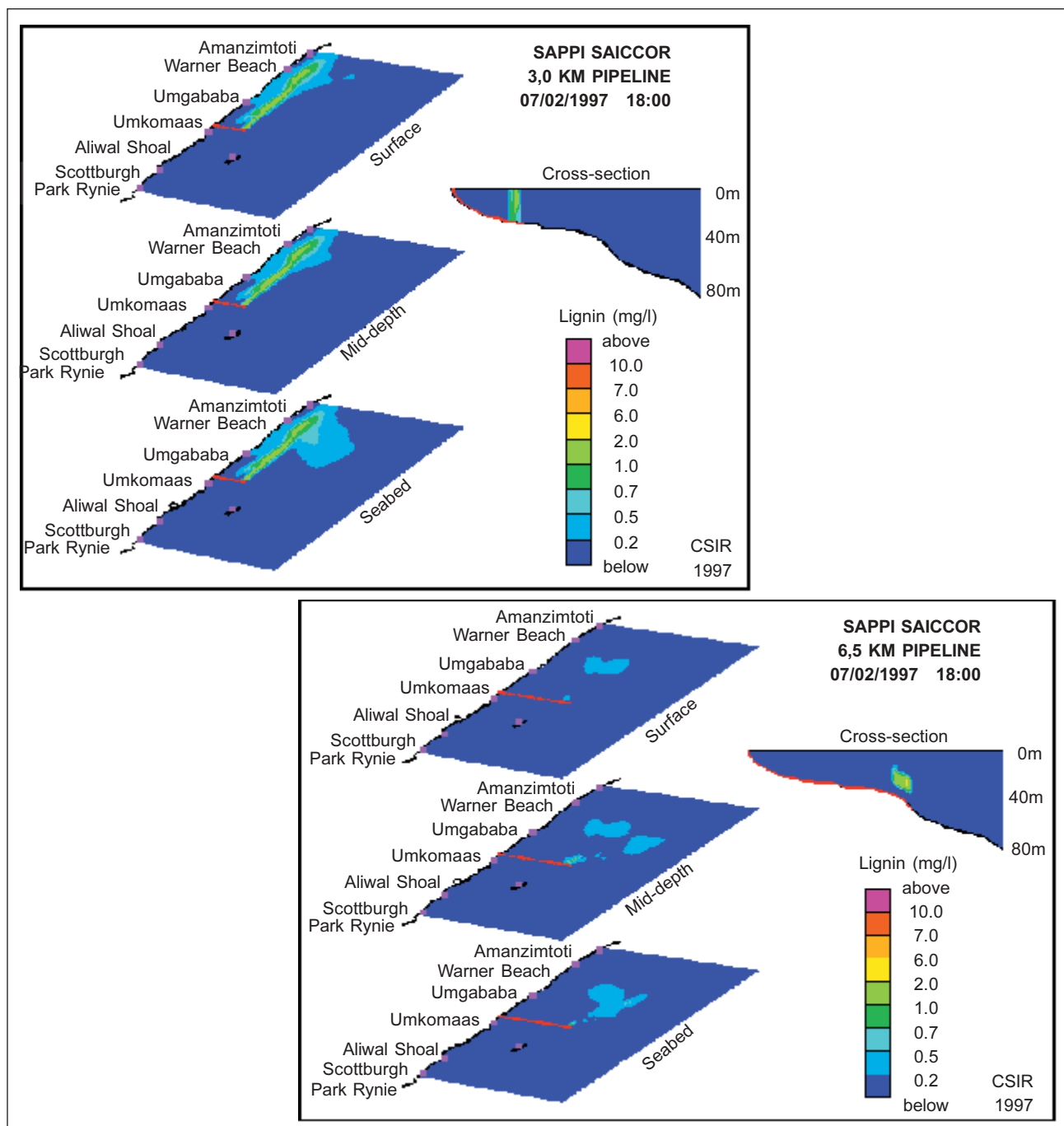
Although Saiccor was operating very well through 1996 to 1997, the public spotlight was on effluent discharge. By September 1996 internal studies into alternative solutions to reduce effluent visibility concluded there were only two viable options: an extension of the effluent pipeline, and a lignosulphonate plant. Marketing information indicated a 55 000 t/a lignosulphonate would be feasible. Eugene van As made a presentation to Minister Kader Asmal on 19 November 1996 in Cape Town, proposing Saiccor conduct an Environmental Impact Assessment (EIA) for an extension of the effluent pipeline from 3 to 7,5 km, and the building of a 55 000 t/a lignosulphonate plant (approximately 10 per cent of the solids in the effluent). The Minister accepted the proposal but wanted an answer from Saiccor by the end of June 1997.



Area map showing proposed extension of the effluent pipeline (red)

Crowther Campbell and Associates were appointed in December 1996 to conduct the EIA. Six public scoping workshops were held between March and April 1997, which focused on identifying environmental and social impacts of extending the pipeline.

Dr Martin Grundlingh of the CSIR in Stellenbosch was engaged to measure ocean currents for February to April 1997, and later for two months in winter. Stephen Luger of the CSIR was commissioned to use the ocean current data in a numerical model (Trisula model) to predict the dispersion of effluent into the ocean for varying lengths of pipeline.



Models showing effluent visibility with the 3 km and 6,5 km pipelines respectively

A number of other studies were also conducted on toxicity, health and legality. The study by the CSIR's respected marine biologist Dr Allan Connell concluded that 'extensive research over the last 27 years has shown no demonstrable adverse impact of Saiccor effluent on the marine biology'.

The results of the modelling indicated the optimum length of the effluent pipeline was 6,5 km. For a 6,5 km pipeline, effluent would be more than 70 per cent less visible than from a 3 km pipeline, which is illustrated in the graphics from the model indicating effluent visibility from a 3 km and 6,5 km pipeline.

At the time the EIA was initiated (February 1997), discussions took place with Smit, Lama, and Brown & Root on the construction of the pipeline. Discussions were also held with the Norwegian company Borregaard on a joint venture for the lignosulphonate business (Borregaard had some 60 per cent of the world lignosulphonate market).

The final EIA was presented to the authorities on 30 September 1997, in which Saiccor proposed to reduce effluent visibility by extending the effluent pipeline to 6,5 km, while at the same time building a 55 000 t lignosulphonate plant. The Department of Water Affairs accepted the proposal and issued Saiccor with a new effluent permit in November 1997 on condition that the effluent pipeline would be extended to 6,5 km by December 1998, and that the lignosulphonate plant would be at full capacity by the middle of 1999.

Smit and Lama were the leading contenders for the pipeline contract.

Although Smit were the preferred suppliers, in view of what they had done in 1987, their considerably higher price could not be justified. The project at a cost of R95 million was approved in December 1997 and the order was immediately placed on Lama. The order for the stainless steel was placed on Columbus, half the pipe manufacture was given to Hall Longmore, the other half to ND Engineering and site construction to ND Engineering. Martin Bellamy was Lama's Project Manager while Graham Kelly was appointed Saiccor's Project Manager for the pipeline, and Clifton van Rooyen Project Co-ordinator.

Graham was born on 30 April 1946 in Liverpool, where he completed his Electrical Engineering degree in 1974. He emigrated to South Africa and worked for Nylon Spinners in Hammersdale from 1975–1986. He emigrated to Australia in 1986, where he was hired by Thys de Waard when on a recruiting trip in 1989. He joined Saiccor on 4 December 1989 as Assistant Engineering Manager, Instruments, and a year later Services and Building were added to his portfolio but were relinquished in 1996 when he headed the electrical and instruments departments. In 1998 he was appointed Project Manager



Graham Kelly



Signing of the LignoTech Joint Venture, 1997. STANDING: Gunnar Vickstrom (Borregaard) and Alan Tubb (Saiccor); SEATED: Ian Forbes (Sappi) and Egil Ulibo (Borregaard)

of the Y2K project in addition to his normal duties. He again emigrated to Australia in February 2001. Graham was a capable engineer, but gave the impression of being distant from people and somewhat overconcerned about his 'rights'.

Also in December 1997 a 50/50 joint venture – LignoTech South Africa – between Borregaard and Saiccor was signed to operate a lignosulphonate business. Borregaard would supply the technical and marketing expertise, while Saiccor would supply the raw material and local knowledge. The 55 000 t/a lignosulphonate plant was approved for R108 million.

As Borregaard were responsible for the technical specification of the plant, they appointed the overall Project Manager – Tom Rabitski, an American. As Tom spent as much time in the US as in Umkomaas during the project, a large part of the management fell on Saiccor's Project Manager, Wayne Weston.

Wayne was born in Durban on 26 November 1960. After completing his Chemical Engineering degree at the University of Natal he worked for Mondi for 22 months before joining Saiccor as a chemical engineer on 1 May 1986. In April 1987 he was transferred to the technical department but transferred back to the production department in October 1988 as an Assistant Production Manager. In 1989 he worked on the feasibility study for the Mkomazi plant and in 1992 managed the installation and commissioning of the new chlorine dioxide plant. On 1 January 1993 he was appointed Production Manager and on 1 January 1994 Senior Production Manager. In January 1998 he was appointed Project Manager for LignoTech and in February 2000 Project Manager for ISO 14000. He was appointed Plant Manager for Pulp



Wayne Weston

Finishing on 1 October 2000. Wayne is a capable chemical engineer and manager.

The world market for lignosulphonates in 1997 was some one million tons per annum, of which Borregaard, the world leader in lignin technology, had about 60 per cent market share. At that time there were only 11 lignosulphonate plants in the world. Lignosulphonate products have a variety of commercial applications in industries, ranging from animal feeds to concrete, ceramics, bricks and tiles. Over 90 per cent of the 55 000 t/a lignosulphonates to be extracted from Saiccor effluent was expected to be exported, earning some US\$19 million in foreign exchange for South Africa. To date Borregaard's investment in LignoTech South Africa is the biggest investment made by a Norwegian company in South Africa.

The construction of the lignosulphonate plant had only just started when on 27 February 1998 the Norwegian Minister of Trade and Finance, Lars Sponheim, with a trade delegation from Norway, visited Saiccor. The South African government was represented at the visit by KwaZulu-Natal Premier Ben Ngubane, Minister of Economic Affairs (KZN), Jacob Zuma, and the Minister of Agriculture (KZN), Narend Singh. Premier Ngubane praised Saiccor for embarking on a quest to be a world-class company, and welcomed Borregaard as the newest member of KwaZulu Natal's industrial family.

Major orders for the lignosulphonate plant were placed in September 1997 (evaporator from IMS and spray dryer from APV Anhydro; the packing line from Haver & Boekner came some time later). Construction of the plant started in December 1997 and



KwaZulu-Natal premier Ben Ngubane (RIGHT) presents a shield to Lars Sponheim, the Norwegian Minister of Trade and Finance, on a visit to Saiccor in 1998



LEFT TO RIGHT: Jacob Zuma, Ben Ngubane, Sinclair Stone and Narend Singh, during the visit of the Norwegian trade delegation to Saiccor, 1998



Artist's impression of completed LignoTech plant

progressed steadily without any major problem (although there were numerous minor ones). The plant was 73 per cent complete by August 1998, 89 per cent by October, and commissioned in December 1998.

The plant was officially opened at a colourful ceremony on 29 March 1999 by Eugene van As, Executive Chairman of Sappi and Jens Heyerdahl, President of Orkla (owner of Borregaard). Guests attending the opening were transported to the LignoTech site in an old-fashioned Umgeni steam train (Saiccor loco).

In his opening address Eugene van As said, 'In the past, Saiccor sold only the cellulosic content of its raw material – timber. LignoTech South Africa now gives us the opportunity to find added value in a previously unused element of this timber.'

In its first 18 months of operation, LignoTech South Africa failed to reach its production and profit targets. In early 2000 an experienced manager from LignoTech Germany, Harry Konig, took over as General Manager. Plant performance soon turned around to achieve expected results.

The site for constructing the effluent pipeline was established on Fontana's farm in Ilfracombe in February 1998. By March the launchway under the road (R102) and the rail line had been constructed, and by April 12 m lengths of concrete coated stainless steel pipes started arriving on the site. By May the first pipes were on the launchway and the barge to pull the pipeline out to sea arrived off Umkomaas. The 'pull' started in June but soon stopped because of mechanical problems with the pull wire 'grippers' on the barge. Turbulent seas that damaged the surf zone structures designed to support the pipeline into the sea delayed the recommencing of the pull. In late July the pipe was pulled out 68 m, where it stuck in a sandbank. The jetty had to be extended by 40 m to enable the pipeline to be lifted over the sandbank.



LignoTech South Africa, in operation



Guests attending the opening of the lignosulphonate plant on 29 March 1999 were transported to the LignoTech site in an old-fashioned Umgeni steam train pulled by a Saiccor locomotive

By September Greg Wolfe had taken over as Lama's Project Manager and by October a report was received from Smit indicating Lama's barge lacked power and that the 3,5 km pipeline would have to be pulled out in two 1,75 km sections. By this stage the project had become a public embarrassment to Saiccor. Further mechanical failures on the barge and associated equipment delayed the pull of the first 1,75 km section to 10–24 December. Following consultations with the Permit Advisory Panel (PAP), the Department of Water Affairs extended the deadline for the completion of the pipeline from 31 December 1998 to 30 April 1999. The second 1,75 km section was pulled into position by 3 March 1999. The two 'spool' pieces were then installed to connect the existing 3 km pipeline to the two new 1,75 km sections. The 6,5 km pipeline was commissioned on 20 April 1999. Although the project was completed late, the cost at R55 million was considerably lower than the budget of R95 million.

The official opening of the new pipeline by the Minister of Water Affairs and Forestry, Ronnie Kasrils, took place on 9 July 1999 in a marquee on the south bank of the Mkomazi River mouth.

Complaints about effluent ceased after the 6,5 km pipeline was commissioned. On 19 November 1999, Glen Jansen wrote to the local



Construction of the 6,5 km effluent pipeline, 1998: TOP A pipe seam welding machine in action at ND Engineering BOTTOM Double-jointing operations underway

newspaper *The Sun*, saying: ‘The impact area is primarily between Umbogintwini to Scottburgh, and I have personally seen a vast improvement in water quality along this whole coastline that was regularly discoloured by Saiccor effluent. In fact we have experienced some “Mauritius” type colour.’

It is curious that ‘environmentalists’ react very strongly to the discolouration of the sea by Saiccor effluent yet are ‘blind’ to the discolouration by river dirt (the latter is supposedly ‘natural’). In a letter to the *Mid South Coast Mail* in December 1986, Ted Beesley, in his personal capacity, lamented the loss of valuable top soil into the sea, pointing out that in 1985 the Mkomazi River carried some 1,5 million tons of soil into the sea. This was equivalent to a soil depth of 0,35 mm across the entire 4 310 square kilometres of the Mkomazi catchment area. He asked whether anyone considered this significant. Since then (by 2002) more than 5 mm have disappeared – and no one yet seems to be concerned.

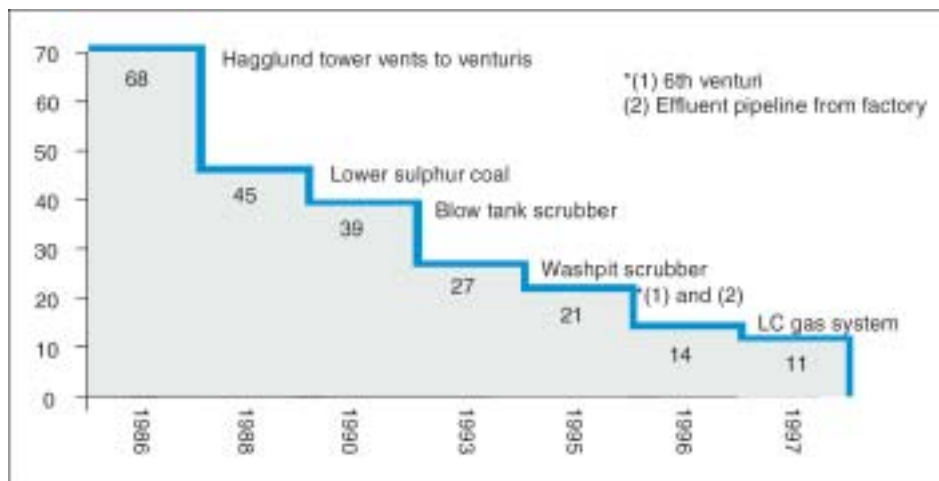
Once a plan to reduce the effluent discolouration of the sea had been agreed, the communities surrounding the mill focused their attention on Saiccor’s gas emissions (sulphur dioxide). As gas emissions had been an issue since 1986, Saiccor emphasised what had been done over the previous 10 to 15 years, which the authorities appreciated, but the communities ignored.



*Construction of the 6,5 km effluent pipeline, 1998: TOP Barge moving offshore whilst laying pull wires
BOTTOM Extension of the jetty after the pipeline stuck in a sandbank*



The Minister of Water Affairs and Forestry, Ronnie Kasrils (left), Sappi Chairman, Eugene van As (right), and Sappi Saiccor Managing Director, Alan Tubb, (centre) unveil the plaque marking the official opening of the Sappi Saiccor pipeline extension, 9 July 1999. The plaque is positioned underneath the railway bridge at the south bank of the Umkomaas River



Total quantity of sulphur dioxide emitted (tons/day), 1986-1997

A continuous ambient sulphur dioxide monitor was installed in the community in 1989, a second in 1994, and a further two in 1995. As the total amount of sulphur dioxide emitted decreased, so the concentration of sulphur dioxide measured in the communities also reduced, as did the number of times the authorities' guidelines for the levels of sulphur dioxide in ambient air were exceeded. However there were still occasions when these guidelines were exceeded and there were still complaints, although the two seldom coincided. A health study conducted in 1997 concluded there was no danger to human health.

Although the local communities continued to complain about gas emissions between 1997 and 1999, the intensity of the complaints started to diminish as it had become noticeable that Saiccor had addressed the issue. However in the evening of 15 September 1999, the discharge valve on No 18 digester was inadvertently opened through the computer system when trying to rectify a problem on No 17 digester. As No 18 was cooking, cooking liquor rich in sulphur dioxide was discharged into part of the process plant that normally contained pulp. Consequently a cloud of sulphur dioxide was emitted and blew undetected over the Drift community. On the assumption that there was something wrong with the discharge valve on No 18 digester, the air pipes controlling the valve were swapped around to close the valve; the digester then continued operating. The following morning it was realised that an error had been made on the computer system the previous day and, unaware that the air pipes had been swapped, the computer system was corrected. The discharge valve again opened, and this time sulphur dioxide went over the Naidoo Memorial School in Roseneath (some 3 km away). Although sulphur dioxide concentrations were not high, they were detected and the headmaster called the emergency response. When the emergency response vehicles arrived at the school the pupils panicked. Some 100 pupils were treated for gassing and hyperventilation. The incident

made front page news (including the SABC National TV news), severely tarnishing Saiccor's image.

The Department of Agriculture and Environmental Affairs set up an official inquiry, from which followed several recommendations. These included another four ambient sulphur dioxide monitors in the communities, together with air speed and direction monitors. In addition, seven early warning monitors were to be placed between the mill and the communities. All sulphur dioxide sources in the mill were to be fed into a computer model that would continuously predict sulphur dioxide levels in the community and raise an alarm before pre-set levels were reached. The Community Awareness and Emergency Response (CAER) forum was reinstituted to exchange information between Saiccor and the communities.

All recommendations from the inquiry were in operation from January 2001.

Tragedy struck in the early hours of the morning of 20 July 2000, when Xolani Philemon Ngcoba fell to his death in No 5 chipper while trying to clear a log jam. Xolani was born on 24 January 1952 and joined Saiccor in 1973 as a general worker, working himself up to a Junior Operator in the woodyard. He was well respected by all for being an exceptionally hard worker who gave his best at all times.

Another tragedy occurred on 31 July 2001. At around midnight on the 30th gas was detected emanating from No 11 digester, which was nearing the end of a cook. The Operating Chargehand Elliot Cele, went to investigate. A piece of the digester shell, some 2 m x 2 m, suddenly tore loose, allowing the contents of the digester to erupt with volcanic force, killing Elliot in the blast. Woli Elliot Cele was born on 10 October 1960, and joined Saiccor on 20 October 1980 as an Assistant Operator in digesters. In 1989 he was promoted to Senior Operator but realised any further promotion would be dependent on his furthering his education. He started studying Pulp and Paper-making through the Sappi college. He achieved N4 in 1998, enabling him to be promoted to Chargehand in 1999. He achieved N6 in April 2001. He was an ambitious and hard working man, well respected by his colleagues.

The rupture of No 11 digester occurred very suddenly and very violently, hurling debris hundreds of metres. Metallurgical examination of the ruptured vessel did not readily reveal the cause of failure. Avesta (Sweden), the designers of the vessel, who knew of no previous failure anywhere in the world, undertook original research work in an attempt to determine the cause of failure. Avesta concluded that a fire in No 11 digester in May 2000 altered the metallurgy of the stainless steel welds, significantly reducing their corrosion resistance. Andy Stretton left Saiccor for New Zealand at the end of July 2001. Tony Neave replaced him as Plant Manager. Tony joined Saiccor on



Xolani Philemon Ngcoba



Woli Elliot Cele

1 February 1981 as Saiccor's first Pulp and Paper diploma student at the Technikon. After completing his studies, he was appointed a Shift Superintendent on 1 January 1984. He was promoted to Production Manager of the woodyard on 1 September 1990 and transferred to the same position in the magnesium plant on 1 September 1995. He was appointed Senior Production Manager on 1 January 1998. Tony is a quiet but strong and capable individual.

A color portrait photograph of a man with dark hair and a mustache, smiling. He is wearing a light-colored plaid button-down shirt. The background is slightly out of focus, showing what appears to be a wall with some papers or a bulletin board.

On 1 January 2001 Craig Daniel joined Saiccor to supplement the environmental department and was immediately launched into ISO 14000. A marine biologist (B.Sc.) and zoologist (M.Sc.), Craig had

previously worked as an environmental conservation officer in Port Elizabeth. The ISO 14000 audit set for July had to be postponed as the trade union had declared a strike over a wage dispute. The audit took place from 6–8 August where auditors, TUV, required seven ‘findings’ to be rectified within 90 days before issuing an ISO 14000 certificate. The ‘findings’ were largely for oil in storm water and incorrect storage of chemicals. Frantic rectification work took place before 23 October 2001, when the ‘findings’ were again audited and found to be in order. An ISO 14000 certificate was issued by TUV (Bavaria) on 31 January 2002.

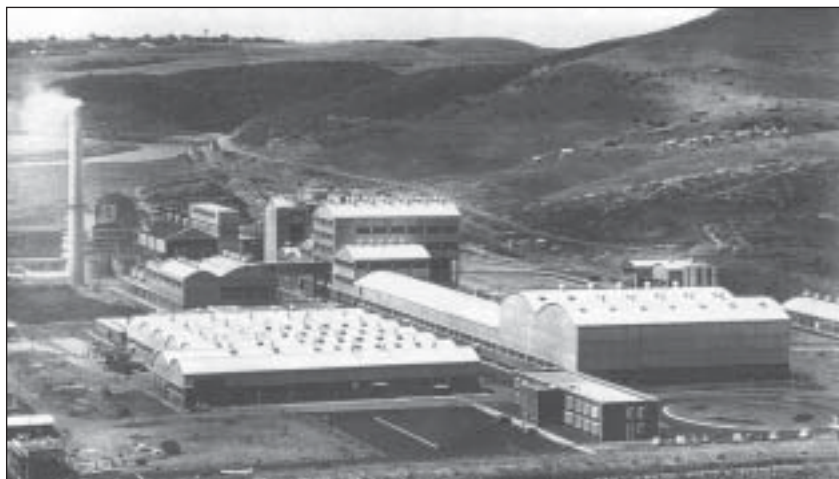


Craig Daniel

The fiftieth anniversary of the registration of Saiccor as a company was marked on 12 September 2001. It had been decided to celebrate the day in a relatively low-key fashion, as the arrival of the Italians in 1954 and the first production on 1 December 1955 were considered more noteworthy events. The anniversary was to be honoured with a banner at the entrance to the mill noting the occasion and a commemorative desk clock given to each employee. However, Saiccor’s fiftieth anniversary was completely overshadowed by the horrific events that took place in New York on 11 September 2001. Everyone was too numb with shock to celebrate. The Saiccor mill carried on.



The Saiccor mill, 2001



The Saiccor mill over the years

TOP: 1950s

MIDDLE: 1960s

BOTTOM: 1990s

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The Saiccor plant

at Umkomaas has played a major role in the development of wood pulp production in South Africa. Over the years it has developed into the world's leading producer of chemical cellulose.

The remarkable story of an important phase in South Africa's industrial history is outlined in this volume, but the book is more than just a narrative about a major pulp mill in KwaZulu-Natal. It is a study detailing the lives and memories of a small community on the South Coast of Natal, woven into a rich and dense tapestry that reflects the social and economic changes that took place over half a century.

While sound technical knowledge and information underpin this chronicle of Saiccor, the book also provides an impressive insight into the pulp-producing industry and the growth of a dynasty. At the same time, the author's unique sense of humour and personal experiences are reflected through the journey of Saiccor and its people.

The book is divided into nine sections, each dealing with the reign of a particular CEO, starting with the pioneers and bringing the reader right up to date.

Amongst the fascinating facts to emerge are that the success of this factory has been due in no small measure to immigration by a large number of people from one small area in Italy; and that Saiccor is the only South African company outside mining that has successfully exported its entire production over a period of fifty years.

The Author

Sinclair Stone is a well-respected man within the community of Umkomaas as well as the Sappi group. Leaving many Saiccor employees with heavy hearts, Sinclair retired from Sappi Saiccor in 2002 with an enviable record at and knowledge of the South Coast pulp mill.

As a chemical engineer, Sinclair joined Saiccor in 1972 and was involved in most of the mill's major expansions and projects. Always welcoming challenge and never losing sight of the human factor within a competitive industry, he earned the admiration of his colleagues during his 30 years at Saiccor.

Sinclair currently resides in Widenham on the KwaZulu-Natal South Coast with his wife Yvonne.



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The Saiccor plant in the 1950s