



FFS NEWS

November 2003

Cape Town harbour has a new landmark

Signage on the new FFS tank farm in Cape Town harbour can be seen for miles. The big tanks are not only a significant landmark but they have already made their mark as a vital facility during salvage operations. Some 3000 tons of oil on the recently beached container ship Sealand Express were pumped into a coastal tanker and off-loaded at the FFS tanks. This operation greatly facilitated the eventual re-floating of the vessel and prevented an environmental disaster in Table Bay.

The tank farm was commissioned at the beginning of the year and 35 000 tons of fuel oil have already been moved through the facility. The tanks have been built mainly for storage of imported bunker oil, off-specification bunker fuel discharged in Cape Town by passing ships, and oily slops recovered from ships in the harbour.

There are two 5000 m³ tanks, one 1700 m³ tank and one 1200 m³ tank, with provision for a further 1200 m³ tank. The tank roofs have a distinctive pattern reflecting the space frame design with integral flat-plate cladding. There is suitable access to and from the harbour for road tankers. The loading facility is capable of loading two vehicles



▲ FFS storage tanks at Cape Town harbour

simultaneously and is housed in a shed for protection from the wind.

The tanks have remote access level read-out and the weighbridge programme allows for remote polling to carry out inventory analysis at any time. There is an assized weighbridge. FFS barge master Rodney Dixon has based his bunker barge operation at the tank facility. All oily slops from shipping are collected in one dedicated tank, before transfer to the FFS facility at Vissershok.

An environmental management system, complying with ISO 14001, has been in operation from day one and the operation complies with SAPO's stringent requirements. ■

What's inside?



Ursula Schaanick, transport controller at the Pietermaritzburg branch, takes us through the inside pages

- ▼ Don Hunter looks ahead 2
- ▼ New final product tanks 3
- ▼ Change for Peter Froude 4
- ▼ 'Dolphin Coast' in rescue 5
- ▼ New distillation column 6

Creating a strategy for the future

FFS Refiners' chief executive officer Don Hunter enjoys reading about business management.

So it was a natural progression to enrol two years ago for the executive management programme at the Graduate School of Business in Cape Town to test his knowledge on strategy. His project at the business school was a strategy for FFS. This created a dialogue in the company, and focus on a clear strategy for future development.

FFS is a great company that is always looking for new opportunities in its niche field which is generally too small for the oil majors to get involved. The company wants to continue as the leader in its field, refining and marketing industrial heating fuels. It is a fast acting, highly innovative, technically-based company, he says.

While profit from adding value to waste material remains the prime motivation, the company has also produced massive environmental benefits with more than five billion litres of fuels being recovered from waste and sold as quality industrial fuels. If it were not for FFS the waste products would be a huge burden on the environment.

FFS is heading for an exciting phase of development involving new technology that will add yet more value to the processing of waste and off-spec materials, to produce high quality fuels and oils. Much of the impetus for this phase will come from the company's own vibrant and active research and development programme which adapts conventional oil industry technologies to suit the particular requirements of FFS.

The company's active training-based transformation programme for cadets will continue at the technologist and engineering levels to produce future innovators.

Don Hunter has hardly paused for breath since FFS directors Tony and Diane Hurter recruited him into the group in 1989 as a project manager to design and build a coal briquette plant. He was soon involved in other fuel oil related processing projects recovering sludges, tars and pitches out of Sasol's Secunda waste pits.

Don has an MSc in structural engineering from Wits University and spent 12 years working for a big structural steel company. He became divisional general manager of FFS in 1995 in charge of inland operations, and group R and D, engineering and design. He is a member of the SA Institute of Civil Engineers and was on the committee



▲ Don Hunter looks ahead.

that drew up the new design code SABS 1518 for hazardous material road tankers.

Don was a provincial gymnast at school, and later achieved national colours in paragliding. He was also once an enthusiastic rock climber. He is now a keen mountain biker and birder. Don and Shirley have two children aged 9 and 12. ■

Boost for tar filtration plant

A new filter has increased process capacity by 150-250m³ a month at the FFS tar filtration plant at Sasol Synfuels in Secunda. The Roto-Jet filter number 9 was designed and built by FFS. It has a filtration area of 80 m² consisting of 40 double-sided leaves. These robust filters have an internal screen washing system, a cake solids scraping mechanism and an internal solids screw-conveyor, making them the most automated and enclosed of filter technologies.

The centrifuge part of the plant is also receiving attention. FFS's environmental management system (ISO 14001) has highlighted the need for reducing fugitive emissions in the plant. The old tanks have been replaced with pressurised vessels to allow for nitrogen blanketing and vapour balancing and suppression. ■



▲ Pressure vessel process tanks under fabrication manager Phillip Vermaak is in the foreground.

Product tanks enhance quality

New final product tanks have been installed at the Durban factory to ensure products are analysed and approved before dispatch. This is part of ongoing product quality improvement included in the FFS quality management system.

The time delay on laboratory analysis requires a final product stock to be maintained if the product specification is to be assured. This stock holding allows for batch quality certification.

The two tanks, which were designed, detailed and built by FFS, are 250m³ each and have

internal steam coils to keep the product at the optimum delivery temperature. The overhead loading platform allows for safe and efficient loading of road tankers.

The tanks have vapour balancing with vacuum pressure breaks through a condenser to vent. This is considered best practice environmentally.

The tanks also stand in a hard surfaced, bunded area capable of holding 100% of the contents of one tank. The fire fighting system consists of directional cannons with permanently connected foam. ■



▲ Final product tanks at the Durban factory.

Plant capacity



Workshop at the FFS Durban fabrication shop. Workshop

Remote measuring installed

FFS has installed remote tank management systems at two of its tank farms. This system, which incorporates the weighbridge, provides a complete remote inventory management capability. The data from the weighbridge and the tank volumes is transmitted automatically from the site and can also be accessed on demand. Stock control is now made easy as even product movements between tanks can be tracked. This system allows the head office-based accounts department to receive information for invoicing direct from the data source, which greatly reduces the potential for error. ■

“You must be mad ...”

The FFS Cape branch was told that 1054 tons of oil was on its way to Paarden Eiland in 27 rail tankers, and would arrive “some time late afternoon on Friday”. The train also had to be off-loaded in 48 hours!

Foreman John Anderson went to the siding to assess requirements. Some Spoornet men laughed when he told them about the task, and said: “You must be blerry mad, you will never do it in time.” The chal-

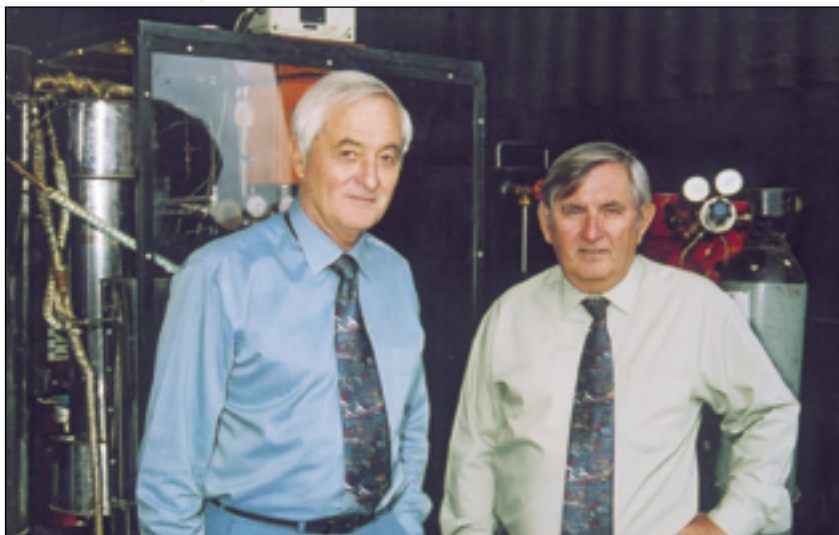
lenge was accepted. Very soon the siding looked like a small village, with a generator, makeshift tent, lights and a canteen to feed the workers and supply tea and coffee through the night. In just 21 hours, the oil had been taken away by road tankers and the siding was deserted apart from one lonely hired generator waiting to be collected.

“Well done, Cape Town – that was team work at its best,” said Don Hunter, group CEO. ■

Peter Froude - a deft hand at the helm

Peter Froude is an old hand at FFS. He joined the founders Tony and Diane Hurter in July 1980 when fuel sales were only 100 tons a month and there were nine people at FFS. Now there are more than 600 employees and seven processing plants around the country. Sales of fuel run at 19 000 tons a month and another 55 000 tons are processed. The company also handles 30 000 tons a month of bunker fuel.

He ends a career spanning 23 years as senior general manager of FFS Refiners and managing director of FFS Bunkers, though he will



▲ Peter Froude (left) and Tony Hurter in the Durban workshops. Peter has taken his last bow at FFS Refiners but continues working at FFS Bunkers on a part-time basis.

continue at FFS Bunkers part-time. He will also keep busy managing two holiday flats at Chaka's Rock.

Peter has a typical Durban pedigree: Durban Prep, Durban High School and the University of Natal where he first met Tony Hurter. Peter studied chemistry and zoology for a BSc. Then it was off to the Antarctic in 1960 as a chemist on

a whaling factory ship. He worked at the Durban Whaling Station as a chemist in the off-season.

He joined Union Whaling in 1961 where he again crossed paths with Tony Hurter who was called in from 1972 to 1975 as a consultant to get the steam up and fuel use down. They set up a centrifuge process at Union Whaling to resuscitate waste fuel.

In 1969 Peter married Jeanette who also worked at Union Whaling, and they have three sons.

He decided to expand his expertise and took a government ticket in electrical engineering. By 1974 he was factory manager at Union Whaling. Thereafter Peter helped set up a factory to produce synthetic oil products before joining forces with FFS.

The early days were fun as they "skated on thin ice". The first big break came when they perfected what they had started at Union Whaling and produced a successful product for the marine industry. In 1986 Sasol took a 49% share in the company, professional engineers were employed and better products were produced.

Peter sees FFS thriving as it moves into more sophisticated processing technology and produces a wider range of fit-for-purpose fuels. ■

FFS supports young scientists

▲ Olga Peel, chairman of the Cape Expo, and Don Cochran of FFS, at the expo at the University of Cape Town.



▲ Siyamkela Makoma of False Bay College working on his project for the FFS Cape Expo for Young Scientists.

FFS has extended sponsorship of regional expositions for young scientists to the Cape.

The company already supports the bigger KwaZulu-Natal expo that attracted 560 science-related projects this year from schools throughout the province including a significant number from Umlazi.

The sponsorships are our way of putting something of value back into society, says Don Cochran, general manager: finance and administration, of FFS Refiners.

The FFS Cape Town Expo for

Young Scientists was a great success this year attracting 248 projects from 34 schools of which 12 were new. The sponsorship covered running costs, prizes for the best projects in each category, and snack packs for entrants.

At the national finals in Pretoria there were 13 medals for the 17 projects from the Cape. The KZN region notched up 17 medals out of 23 entries. ■

'Dolphin Coast' in sea rescue drama

The sea respects no-one. On a night when wind speed was about 30 knots and swells were over two metres, the second mate of FFS Bunkers' vessel, 'Dolphin Coast', Ardi de Reus, heard an urgent message from Durban Radio about a yacht in difficulties off the North Coast. The yacht, 'Transformer', was nearby.

It was just after 01h00 when he called the master Bob Allen and contact was made with Durban Radio, Durban Port Control and the yacht.

The yacht's sail had been lost in a 'buster' earlier and it was proceeding under power to Durban in rough seas. It was just south of the Mvoti River and the crew elected to carry on the voyage. 'Dolphin Coast' maintained passage to Richards Bay.

About an hour later, the 'Transformer' told Durban Radio they were ready to abandon ship. They were making little headway and fuel was low. 'Dolphin Coast' responded and headed back to the yacht's position. Extensive preparations were made and speed was



▲ Ardi de Reus, second mate, and Bob Allen, master of FFS Bunkers' 'Dolphin Coast', recall the rescue of the yacht crew in rough seas.

reduced to lessen the volume of water going over the main deck which is less than a metre above the sea with a full load.

A gangway net was rigged over the side for anyone ending up in the water. Life buoys and heaving lines were made ready. 'Dolphin Coast' approached within five metres and the yacht came alongside with some difficulty. The three crew members scrambled aboard ably assisted by the 'Dolphin Coast' crew. The yacht's bowline parted and then the stern line was also lost. It was too

risky to board the yacht in the choppy sea, and she was abandoned. The crew of the yacht appeared to be inexperienced. Passage was resumed at 04h00. Durban Port Control and Durban Radio were advised. 'British Pride', a 320 000-ton tanker with a draft of 22 metres, offered help at the beginning of the operation, but due to the shallow water near the coast the offer was declined.

Later that morning the 'Transformer' was seen close to Salt Rock. She was boarded and sailed successfully to Durban. ■

Bunker barge delivers the goods ...



▲ The 'Black Egret' has performed well in her first year of operation providing a consistent 24-hour service to ships in Durban harbour. She can deliver stems to ships at a rate of 400 m³ an hour and has proved her worth particularly when fuel pipelines on the container wharf are down. Here the FFS Bunkers barge is seen supplying bunker fuel to the ocean liner 'Crown Odyssey'.

appointments



▲ Steve Nomico, who has replaced Nicholas Matter, has been appointed engineering manager. Steve is a consulting mechanical engineer with much experience and brings a range of skills and knowledge to FFS.



▲ Antony Steynberg has been appointed plant engineer at the FFS tar processing plant at Sasol Synfuels Secunda. Antony is a mechanical engineer.



▲ Chris Williamson has been appointed branch manager at the FFS tar processing plant at Sasol Synfuels Secunda. Chris is a mechanical engineer with considerable experience.



▲ Ernst Engelbrecht has been appointed plant engineer at the FFS Cape plant. Ernst is a mechanical engineer and has an MBA. He previously worked in West Africa for ICI and AECI.

New distillation column for Maritzburg

The Pietermaritzburg branch of FFS has recently commissioned a new multi-purpose distillation column.

This R1-million machine was installed primarily to provide a toll distillation service to the major oil companies, and to the chemical industry, where mixtures of products need to be separated. There are frequent requirements for the separation of products such as C₉ and C₁₀ paraffin, petrol and diesel mixes and various chemicals and solvents.

The column design was modified by Logichem Process Equipment who also supplied the 24 trays. The overall design of the unit was done by a team of engineers from FFS, and the FFS fabrication shop in Durban built and erected the complete unit. The 14m high column can run at atmospheric pressure or under vacuum at temperatures up to 180°C.



▲ New distillation column and ancillary plant being constructed in Pietermaritzburg for toll solvents and specialised chemicals processing.

A fired heater option is to be added at a later stage to allow

Maritime award for pupil Bo



▲ Consistent academic achievement in maritime studies made Bo Gouvias (above), a Simon's Town School grade 12 pupil, the winner of the International Bunker Industry Association (Southern Africa) award. On hand to make the presentation at the school's maritime studies department annual awards ceremony was Captain Phil Harris of FFS Bunkers.

temperatures up to 400°C to be reached.

The column has a capacity of up to 3000 m³ a month depending on product and temperature limitations.

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