



EDITORIAL

The Whole Plant

We frequently come across customers who have purchased a few key items of equipment and believe they are well on the way to having an operational plant or plant upgrade. The reality is that procuring the main items of plant, although representing a significant part of the capital cost, is a relatively minor element of the project.

To make the plant operational typically requires the addition of raw material and product storage, interconnecting conveyors, services and product piping, pumps, ducting, odour control, electrical and controls, building and civil works and site installation of all the plant.

Pulling the whole project together effectively is a complicated process and requires design and project management expertise committed to the project.

The value of a well designed plant and skillfully run project is not necessarily fully appreciated by industry. It is however the most cost effective, orderly and fastest route to a successful plant.

As well as the supply of the main equipment Rendertech have the in-house expertise to undertake the whole project; from economic feasibility to training the operators.

*Graeme Don
General Manager*

TALLOMAN UPGRADES

Continuous process outshines old batch system

Increased throughput rates are among advantages experienced in the wake of an upgrade at the Talloman rendering plant in Perth, Western Australia, which operates two lines for processing poultry materials - feathers and offal. Rendertech's role in the project was plant designer, project manager and principal equipment supplier.

The feather line now features a Rendertech CFH5.5 Hydrolyser and a CD200 stainless steel drier. These are continuous in operation so that the line, which previously worked to a batch system, can now process feathers at a rate of 4 tonnes/hour. The upgraded offal line also incorporates a CD200 which in this case is used as a high temperature cooker. Throughput on this line is now up to 7.5 tonnes/hour.



Rendertech had to work within a considerably restricted space to achieve this success. An original tank farm of 850 tonnes capacity was removed to make way for a new building to house the new facility.

Speed, however, is far from being the whole story. Improved quality meals and oils for the growing aquaculture and petfood markets, reduced odour emission and reduced ammonia and BOD loading in the wastewater stream are additional benefits from the upgrade. In addition, labour and maintenance savings are also anticipated from the change to continuous hydrolyzing. Talloman's Andrew Bennett talks elsewhere in this issue of further improvements which Rendertech has brought to the Craig Mostyn Group's operation.

Also in this issue:

Smart recycling

Dust problem solved

Save environment - save costs!

NZ Dairies wastewater plant

Bartters go continuous

Wanabe Tall black

South Pacific Meats Ltd set an example in recycling at their rendering plant in Invercargill. Following closure of Sealord's Dunedin fishmeal plant, SPM purchased the facility on December 27 2006 with a view to utilising much of the existing equipment for upgrading their own plant.

Rendertech, who had installed equipment for the Sealord plant over the past ten years, was contracted to provide engineering and project management services for the transfer and to complete the installation. Work on removing the equipment commenced on 2 January 2007 and commissioning was initiated just over a month later on 8 February.



A SMART RECYCLE PROJECT

As part of the operation, Rendertech also supplied additional equipment to 'fill the gaps' and provided training for the existing staff. A new PLC control strategy was instituted.

Engineering Manager Corey Brett is appreciative of the training given to new staff by Rendertech personnel. He records that this was a very helpful aspect of Rendertech's role. Corey also reports that the recycling principle is also being employed in other improvements to the plant, in particular to reduce wastage and increase marketable product output.

Blood dust problem solved

Andrew Bennett of the Talloman rendering operation in Perth, Western Australia, faced a serious problem over the ultra-fine blood dust which was being carried to the plant's wastewater treatment facility.

Five figure BOD load readings were being experienced and, in addition, dust was being deposited on the walls of the ducting at such a rate that it was necessary to dismantle the entire ducting system and remove the caked-on deposits every two weeks!

This is, however, now a thing of the

past. The installation of a Rendertech Blood Scrubber has reduced the contamination load to such an extent that loadings can now be calculated in terms of one tenth of the former figures.

The reduction in dust loading has also advantageously affected the downtime which was formerly required for dismantling and de-scaling the ducting system. The advent of the Rendertech Blood Scrubber has now reduced this to an acceptable minimum.

Andrew has had a long term relationship with Rendertech Ltd. He describes the results which the Rendertech solution has brought to his company's dust loading problem as 'fantastic'.

He was also impressed with the readiness of Rendertech personnel to examine the difficulties at his plant at first hand and to make figures available from a similar installation which assisted him in making this important decision.



Like to know more?



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Save environment - save costs!



Geoff Briggs, Maintenance Manager at Sunnybrand Chickens Pty Ltd, is delighted with the performance of the new Belt Press which has recently been installed by Rendertech in the Sunnybrand processing plant at Byron Bay in New South Wales.

Prior to this improvement, the sludge produced from the plant's wastewater system proved to be too high in liquid content to permit its being transferred to land. The Rendertech Belt Press is now effectively dewatering the effluent, as can be seen in the photograph, so that arrangements are currently being worked out for agricultural use of the improved sludge output.

Geoff explains that, in addition to the obvious enhancement to the environment, considerable time and cost savings have been experienced. He reports that an appreciably smaller volume of effluent is now being processed at Sunnybrand.

New wastewater treatment plant for NZ Dairies

Following on-site treatment, the wastewater from NZ Dairies Ltd new dairy processing plant at Studholme in South Canterbury will in future be put to the beneficial use of irrigating local farms. NZ Dairies Project Manager at Studholme, John Ioannou, says that because the site was formerly involved in processing fruit and vegetables for freezing and the effluent was consequently very different in character from that produced by a dairy operation, wastewater treatment had become an imperative.

The treatment plant, designed, constructed and now commissioned by Rendertech Ltd, removes contaminants from the wastewater using a dissolved air flotation (DAF) system. As well as its successful use in dairy applications, the Rendertech DAF system is well proven on other food related wastewater applications including meat, fish, and poultry.

The wastewater treatment plant at Studholme also incorporates three Columbian TecTank modular, epoxy-coated steel storage tanks. Potable water is also held in a similar tank which has been completed with an aluminum geodesic dome roof. The factory-applied, baked-on epoxy coating which provides a long-lasting, low maintenance surface has been well accepted by the dairy and other industries both in New Zealand and elsewhere.

The NZ Dairies project brings the total number of Columbian TecTanks used in the South Island dairy industry alone to over 40. Rendertech has supplied tanks for a wide range of liquid and solid applications from potable water to wastewater sludge and from fly-ash to flour.



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Bartters go continuous

Hanwood in New South Wales has seen another batch cooker system replaced with a far more efficient continuous feather hydrolyzer. Hanwood chicken processors Bartter Enterprises Pty Ltd, who operate their own rendering plant, were faced with replacing their batch cookers which were badly worn.

The Rendertech proposal to install a continuous feather hydrolyzer, rather than to provide a simple replacement of the old equipment, offered not only an economical solution but provided an opportunity to upgrade the system with modern state-of-the-art technology.

Bartter's Project Manager, Alan Forner, reports that the hydrolyzer is

performing nicely. The continuous process not only cuts down steam consumption but reduces the process cycle by 5 hours, thus freeing operating personnel to perform other functions around the plant.

The new hydrolyzer, Alan tells us, has highlighted deficiencies in other items of equipment. It was soon discovered that their drier was not performing as it should and needed to be brought up to scratch.



A Wanabe Tall Black?

He's tall enough, but he's built more like a rugby forward! Christian Sison, 31, last year brought his mechanical engineering skills to Rendertech Ltd from Hitachi whom he has served in Japan as well as in his native Philippines.

Christian is married with a 5 year old daughter. Far from being an armchair sportsman, he played his favourite sport - basketball - before coming to NZ and has been quick to taken up the game here.

The whole family enjoy being in this country and appreciate both the opportunities which it offers and the friendships they have made.



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STOP PRESS

Affco NZ Ltd has engaged Rendertech as designer and equipment supplier for the new rendering facility at their Wairoa plant.

Like to know more?



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