

Norit X-Flow scoops Palm UF membrane deal

With Hyflux finally out of the picture, Norit X-Flow is set to supply its Seaguard UF pretreatment membranes. It is a significant contract award for the Dutch company.

An order for the ultrafiltration (UF) membranes at the Palm Jumeirah project in the UAE has been placed with Norit X-Flow for its Seaguard seawater pretreatment membranes. The order is from ACWa Emirates, the Dubai-based EPC contractor for two SWRO desalination plants, which are designed to supply water to hotels and commercial developments on the Crescent of the Palm (see *GWJ*, July 2006, p20). The order value has not been disclosed.

The award is a major triumph for Norit X-Flow, which launched the Seaguard membrane in January 2006 specifically for pretreatment of seawater RO. Norit X-Flow will supply a total of 3,840 of the membranes (1,920 for each plant), which will be mounted on 24 skids (12 at each site).

The Seaguard membranes will handle a feedwater flow of up to 104,000m³/d per site (flow to the RO is 92,000m³/d per site). Feedwater salinity at the Palm sites is in the range of 44,000mg/l to 48,000mg/l TDS. RO permeate produced at each site will be 32,000m³/d.

ACWa Emirates selected Norit following a comprehensive evaluation of UF membranes from a range of industry suppliers.

"We have strong confidence in Norit as a [UF membrane] supplier", commented Peter Ripley, ACWa Services' managing director. "We based our decision on their experience and track record with this type of feed water gained on projects of a similar nature in the Middle East."

The selection was made in cooperation with engineering consultant Mott MacDonald which is advising the client, Palm Water.

The Palm award is significant for two reasons.

In the first instance, it will come as a major blow for the expansion plans of Hyflux in the Middle East (see *box this page*). While the basic process steps remain the same as designed by former Palm EPC contractor Hyflux Middle East, the UF membranes specified by the company have been rejected in favour of Norit X-Flow's Seaguard membranes.

Secondly, and most important, the Palm project represents a breakthrough for UF pretreatment membranes for desalination of seawater in large-scale projects in the

X-Flow award raises questions

The loss of the membrane supply contract has people wondering whether Hyflux walked or was pushed from the Palm project?

The award of the UF pretreatment membrane contract for the Palm Jumeirah desalination plants to X-Flow seems to contradict the assurances Hyflux gave to the markets when it restructured its investment in the project in March this year.

In a statement issued to the markets on the morning of Saturday, 18 March the company said that under the restructuring agreement with Istithmar (the Dubai state investment company that is Hyflux's partner in Palm Water as well as owner of Nakheel, the developer of the Palm), Hyflux would "supply the proprietary membrane systems to the two 32,000m³/d seawater desalination plants now being built for The Palm Crescent development".

Chief executive Olivia Lum went on to stress that the restructuring would enable Hyflux to hold on to the high margin elements of the project, without committing so much capital.

The deal "continues to give us the opportunities to participate in Palm Water projects through the supply of our process know-how and proprietary membrane systems, which are our core competencies".

Some in Dubai have interpreted the fact that ACWa Services has taken the decision not to use Hyflux's membranes

as an indication that a key element of Hyflux's core competency is "not fit for purpose". It has also been suggested that a lack of confidence in the ability of Hyflux's membrane pretreatment systems to deal with feedwater from the Arabian Gulf may have triggered the company's decision to leave the EPC contract for the project.

Neither Lum, nor Hyflux finance director Grace Goh were available for comment as *GWJ* went to press. Other observers have pointed out that the UF membranes themselves represent a relatively small part of a membrane pretreatment system.

It would not reflect badly on Hyflux if the new EPC contractor were to choose a different UF membrane supplier while retaining the overall system. At the very worst, the loss of the membrane supply contract is no more than a suggestion that even with Lum's legendary deal-making abilities, Hyflux could not squeeze all the value of a project it had no wish to complete.

Either way, there is a consensus that Hyflux's future expansion is likely to focus on Asian markets rather than the Middle East. This month, the company announced its first contract in India – a 15,000m³/d industrial water treatment plant at Hebbal near Bangalore.

Middle East. "This is the next step in water treatment," said Norit X-Flow global director of sales & marketing, Rick Rosberg. "Dual membrane treatment for large-scale seawater desalination is one of the biggest recent industry breakthroughs.

"It will help to further boost the use of RO for seawater desalination and make it possible to install seawater RO systems on more challenging seawater sources".

With the enormous potential for seawater pretreatment and the expansion of membrane applications in wastewater, the UF market in the Middle East looks set

to enter expansion mode. Norit X-Flow is close to securing a number of significant seawater RO pretreatment contracts.

Seaguard UF pretreatment membranes have been selected for the 13,650m³/d (38,000m³/d feedwater flow to the UF pretreatment and 34,000m³/d flow to the RO). Kalba SWRO project in the UAE.

The Kalba client, the Sharjah Electricity and Water Company (SEWA), will be the first municipal client in the Middle East to use a UF pretreatment system.

The EPC contractor for the project is CH2M Hill.