Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Pentair delivers full-year and quarterly results in line with expectations

Global water treatment company Pentair Plc has delivered results for fiscal year 2019 and its final quarter of the twelve-month period that are in line with its expectations.

It posted full-year sales of $2.96 billion, and fourth quarter sales of $755 million, which were up 2% compared with the corresponding three-month period a year earlier.

Commenting on the results, John Stauch, President and CEO, Pentair, said: ‘We are pleased to deliver fourth-quarter and full-year results in line with our expectations. During 2019, we completed two strategic acquisitions that enabled the company to move closer to the consumer. We made great strides in accelerating our growth investments around marketing, brand building and innovation.’

The company anticipates full year 2020 sales up by approximately 1–3% on a reported basis and up by around 2–4% on a core basis.

In 2019 Pentair bought Aquion and Pelican Water Systems Membrane Technology, February 2019, pages 1 & 16).

Aquion manufactures and markets premium water treatment equipment and water quality systems that serve a variety of markets around the world. It offers a diverse line of water conditioners, iron and carbon filters, drinking-water purifiers, ozone and ultraviolet disinfection systems, reverse osmosis (RO) units and acid neutralisers for the residential and commercial water treatment sector. Pelican Water Systems provides residential whole home water treatment systems.

Pentair also invested in Aqua Membranes which develops 3D-printed spacer technology for RO membrane filtration elements (Membrane Technology, March 2019, page 1).

For further information, visit: www.pentair.com, www.aquion.com & www.pelicanwater.com

New strategic market segment and follow-on orders continue to strengthen Aspiral’s position in China

As reported previously in this newsletter, Fluence Corp Ltd’s Aspiral™ family of decentralised, smart packaged wastewater treatment systems is being used worldwide, including countries such as China, where it is already being employed in numerous applications. Here, we briefly look at some recent developments in this country, where interest in this technology continues to grow. As an aside, the company has also provided an update regarding its operations in China and how they are potentially affected by the outbreak of the coronavirus.

US-based provider of water and wastewater treatment systems Fluence Corp Ltd unveiled its Aspiral family of decentralised, smart packaged wastewater treatment systems — based on its membrane aerated biofilm reactor (MABR) technology — in May 2018 (Membrane Technology, June 2018, page 10).

Since then interest in this technology has continued to grow worldwide, with sales momentum increasing particularly across multiple provinces in China (Membrane Technology, July 2018, October 2018 and April 2019, pages 6–7 for each issue; and November 2019, pages 5–7).

The company says that this MABR-based technology is now being employed in Inner Mongolia and that it has also received follow-on orders from Aerospace Kaitian Environmental Technology Co Ltd and Investment Intelligent Detection Co Ltd (Hubei ITEST).

Fluence has announced that it has entered into a new strategic market segment and new province with an Aspiral sale to Beijing China Railway Science New Technology Co Ltd for a project involving the Chinese railway system in Inner Mongolia.

This will make use of an Aspiral L3 unit to treat an initial 35 m³ (about 9250 gallons) per day of highly concentrated wastewater.

‘...we are confident that Aspiral will become the ideal technology for the distributed network of China Railway throughout the People’s Republic.’

Fluence’s MABR technology has demonstrated its ability to comply with the required effluent standards in previous applications involving extremely low temperatures, whilst maintaining treatment fidelity.

Beijing China Railway Science New Technology Co Ltd is a wholly-owned subsidiary of China Academy of Railway
Fluence’s operations in China and the coronavirus outbreak

During February 2020 Fluence Corp Ltd took several precautionary measures – including instructing its Chinese office staff to work from home – because of the travel restrictions imposed by the Chinese Government as a result of the outbreak of the coronavirus.

Bookings and revenue from the initial weeks of 2020 have not been negatively affected, says the firm. Some of Fluence’s first-half 2020 revenue may shift to the second half of the year, as happened to many companies during the 2003 SARS outbreak. The company does not anticipate that any such delays, should they occur, will have a material impact on 2020 revenue.

Many of Fluence’s partners and customers who potentially could be affected by the coronavirus have implemented similar precautionary measures with respect to their staff and offices.

Communication with them continues uninterrupted, but is being conducted primarily via telephone or video conferencing rather than in person.

Contaminated sewage

As the coronavirus is known to be partially transmitted through contaminated sewage, Fluence says that it is also standing ready and able to assist its local partners to supply required wastewater treatment plants at short notice.

‘The board and management of Fluence are actively monitoring the coronavirus situation. We wish all our team members, partners, customers and the Chinese people well and hope that the virus will be contained and eradicated quickly,’ said Henry Charrabé, Managing Director and CEO, Fluence.

Sciences Cooperation Ltd, a government-owned research entity. It carries out innovative research and development, provides technical consulting services and assists with quick implementation of new technology development for the government.

Reference site

Commenting on this order, Henry Charrabé, Managing Director and CEO, Fluence, said:

‘Fluence’s MABR deployments have increased from only two in 2017 to over 140 today. This initial contract is strategically important to Fluence and is anticipated to rapidly prove MABR’s effectiveness in this new application, similar to the experience with three existing volume partners in China.’

‘As we have seen in the past, once our MABR technology has proven itself to a new partner, via an initial order, and Fluence is able to significantly contribute to the economic value proposition, meaningful bulk commitments often follow.’

‘By adding this reference in the severe, cold weather climate of Inner Mongolia – the third largest province in China – we are confident that Aspiral will become the ideal technology for the distributed network of China Railway throughout the People’s Republic.’

The company says that it is shipping this new order from its factory in Changzhou, located in Jiangsu Province in China, which has not been affected by any material delays in its supply chain and continues to meet demand for MABR systems from around the world.’

Follow-on orders

First bulk-order from Kaitian

At the end 2019, Fluence secured a follow-on Aspiral order from Aerospace Kaitian Environmental Technology Co Ltd (Kaitian), with a value of more than US$3 million. Shipments, which have already begun, are expected to extend into early 2020.

This first bulk-order from Kaitian for a total of 15 wastewater treatment plants comprises 27 Aspiral L3 units and 18 Aspiral L4 units, which will collectively serve over a dozen towns and rural townships in Anhui Province, China.

It follows the memorandum of understanding signed with Kaitian in August of 2019 (Membrane Technology, November 2019, pages 5–7) to satisfy the expected capacity needs of 40 000 m³ (around 10.6 million gallons) per day, or more, through to the end of 2021.

Subsequent to the successful installation of the Xielingang project in Huoqiu County for Kaitian, this particular volume order will deliver a combined capacity of 8100 m³ (around 2.1 million gallons) per day of Class 1A effluent.

Charrabé said: ‘Earlier this year, our partners at Kaitian were able to witness first-hand the efficient deployment and commissioning of a Fluence Aspiral project and the high-quality wastewater treatment of our MABR systems.’

He says that repeat bulk orders from partners like Kaitian are a testament to the trust Fluence has gained in China and the efficacy of its Aspiral products – including quick construction, deployment and commissioning, as well as reliable ongoing performance and simple operations and maintenance.

Follow-on order from ITEST

Fluence also recently executed a follow-on order, worth US$3 million, from a subsidiary of its local Chinese partner Hubei ITEST.

The order comprised 10 Aspiral S1 units, 18 Aspiral L4 units and auxiliary equipment – bringing the total capacity of this purchase order to 1950 m³ (approximately 5.2 gallons) per day.

The units will be deployed at service stations and toll stations along highways in Hubei province as contemplated in the original agreement signed in October 2018 (Membrane Technology, October 2018, pages 6–7).

Shipments, which have already begun, are expected to extend into early 2020.

Commenting on this award, Charrabé said: ‘We are pleased to continue progressing the close relationship with ITEST, which has now resulted in orders of more than 100 Aspiral units since the inception of our multi-year partnership a year ago.’

The superior nitrogen removal capabilities of Fluence’s Aspiral products makes them ideal systems to treat wastewater high in nitrogen concentration, such as the influent from ITEST sites.

‘ITEST has become a true partner for us in China and we look forward to executing on the partnership agreement over the next several years and developing similar mutually beneficial relationships in the near future.’

For further information, visit: https://www.fluencecorp.com

(This news focus is based on press material issued by Fluence Corp Ltd.)