

# WATER DESALINATION REPORT

## AWWA/AMTA MEMBRANE TECHNOLOGY CONFERENCE ISSUE

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### Conference

#### 2023 MTC SUMMARY

Over 950 attendees participated in last week's AWWA/AMTA Membrane Technology Conference & Exposition (MTC) in Fort Lauderdale, Florida. By all accounts, it was a successful event.

Next year's MTC will be held on 25-27 February, in Long Beach, California.

### AMTA

#### 2024 HALL OF FAME INDUCTEES

Four new AMTA Hall of Fame members were recognized for their pioneering and lifetime contributions to the field of membrane technology. During the annual Awards Luncheon, this year's Hall of Fame inductees were introduced. They include:

**Andrew Benedek, PhD** – In recognition of his contribution to the membrane filtration industry. Following a professorship at McMaster University, he founded Zenon Environmental in 1980, and remained its CEO for 26 years. Under his leadership, Zenon developed innovative, cost-effective UF membrane technologies for water and wastewater

applications. After Zenon's acquisition, Andrew went on to tackle other important environmental challenges, including the development of a new MBR product.

**Pierre Côté, PhD** – In recognition of his contribution to the membrane filtration industry, beginning in 1987, as a student at the Suez Research Center, where he was involved in the early days of hollow fiber membrane technology development. After joining Zenon in 1989, Pierre was the principal developer of the ZeeWeed UF membrane, and pioneered many of the technology's improvements for applications in MBRs and water treatment applications.

**Doug Eisberg** – In recognition of his contribution to the membrane industry, beginning in 1983, when he joined Advanced Structures in the early days of FRP pressure vessel development. He later founded and managed Protec, a leading pressure vessel supplier. Responsible for Avista's global business development for membrane treatment solutions, he is also a 24-year AMTA board director, leads AMTA's RO safety guideline committee, and tirelessly promotes membrane plant safety.

**Erik Roesink, PhD** – In recognition of his contribution to the membrane filtration industry, which began in 1985 at Netherlands-based X-Flow, where he developed a hollow-



2024 AMTA Hall of Fame: from left, Doug Eisberg, Pierre Côté, Andrew Benedek and Erik Roesink



Membrane Plant Operator of the Year Jeff Mlak with Clemson University's David Ladner



Young Membrane Professional of the year, Purdue's David Warsinger with AWWA President Patrick Kerr

fiber PES membrane for MF and UF applications. As a professor at the University of Enschede, Erik continued his groundbreaking work, focusing on hollow fiber NF membranes, culminating in the founding of NX filtration in 2016, where he remains the CTO.

**Conference**

**OTHER AMTA AND AWWA AWARD WINNERS**

**Membrane Facility of the Year:** City of Fargo Municipal Water Treatment Plant, North Dakota – Two facilities operate under the umbrella of Fargo’s Water Treatment Plant. The first, a lime-softening plant, became operational in 1997. The second, which uses membrane filtration pretreatment and RO, was commissioned in August 2018. The combined facilities have the capacity to treat 45 MGD (270 MGD), and serve approximately 170,000 residents.

**Membrane Plant Operator of the Year:** Jeff Mlak, Harpool Regional Water Treatment Plant, Aubrey (Dallas), Texas

**AWWA Austin F. McCormack, Jr Young Membrane Professional Award:** Dr David Warsinger, Purdue University

**MTC Best Exhibit Award:** Cerafiltec, the flat-sheet ceramic membrane supplier.

**AWWA Best Membrane Paper Award:** Florence Choo, Emma Sawade, and David Cook for “Summer odors to winter blooms: Treatment validation in the lower River Murray”, and “Assessment of cyanobacteria and their taste and odorous metabolites in the lower River Murray: 2000–2022”. Both papers were awarded as a series on the on identification and treatment of cyanobacteria in the River Murray Basin.

**Best MTC Paper Award:** Rick Stover, for “Membrane Brine Concentration for NaCl Salt Production from Seawater”.

**Best MTC Student Paper:** Joseph Ladouceur, University of Ottawa, for “Low-pressure Membrane Pretreatment by DAF: Comparison with Alternative Coagulation Strategies”.

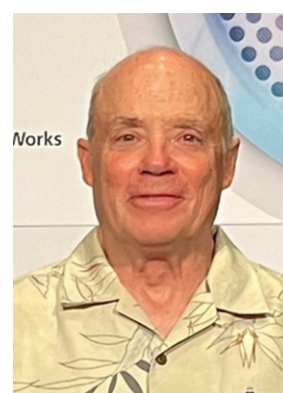
**A Blast from the Past – Desal veterans attend the MTC**



Veteran Desalters: Randy Truby and Scott Freeman



Hydranautics' Rocco Cuozzo and Ken Klinko, the retired former Hydranautics' president and COO



Pete Darby, the Godfather of RO PV's





*AMTA's Nicole Zimmerman taking a pre-MTC beach break*



*CDM Smith's Rubén Muñoz & IDE's Marina Shulman*



*Harold Fravel, ATMA's retired, former executive director*



*AMTA's John Tonner and wife Jodie supporting an exhibitor*



*ZwitterCo's Elke Peirtsegaee explaining hydrophobicity*



*A social media moment*



*Sarah Miguel provides details on the \$119 million XPrize*



*Veolia's John Korpiel and Sidem's Pedro Boulard discuss the Barrel*

**Best MTC Poster Award:** Arun Subramani, Black & Veatch, for “Application of MBR and RO Towards Indirect and Direct Potable Reuse”.

**Best MTC Student Poster Award:** David Lu, University of Kentucky, for “Reduction of Biofouling to Brackish Water using Scaled Silver Nanoparticle-Embedded Polysulfone Membranes Derived from Green Solvents”.

**AMTA Distinguished Service Awards:** Timothy English, Carollo Engineers; Chris Owen, Hazen and Sawyer; Jill Miller, City of Fargo; Michael Bourke, Wigen Water.

**AMTA Outstanding Member Award:** David Derr, Afton Pumps (posthumous).

## People

### MY CAREER IN WATER

*Editor’s note: Dave Walker, the co-founder and former CEO of Avista Water Technologies, retired last March, four years after the company was acquired by Kurita Industries for \$81.8 million. On the eve of Avista’s 25<sup>th</sup> anniversary, which was celebrated at last week’s Membrane Technology Conference, WDR asked Walker to reflect on the events that led to his decision to start up the company, and those that eventually led to his decision to sell it. Here’s what he said...*

In the spring of 1999, I was 38 years old and faced with a career decision. Argo Scientific, my employer, had recently been purchased by BetzDearborn, which was subsequently acquired by Hercules, who initiated substantial layoffs. The former Argo group was saddled with an employee reduction of nearly 70%.

Although I was offered a position to lead the RO Specialty Chemicals group, it would have required me to relocate from California to Pennsylvania, accept a salary reduction, and give up my company car. I would have been working side-by-side with managers with chemical engineering and MBA

degrees, of which I had neither. When I asked about my job security, I was told, “You’ll be in the same boat as the rest of us.”

Since I had no ownership in Argo when it was sold to Betz, the move wouldn’t have provided me any financial security; however, my saving grace was that I was not encumbered with an enforceable non-compete agreement. It was clear that I had to consider another option.

The RO industry was still relatively young, and, at the time, the RO chemical industry was saturated. But I felt that the consolidation of the chemical suppliers would leave a hole in the market that would weaken the competitive situation.

I decided that starting a new RO specialty chemical company was my best option. The day that I phoned my father to tell him my plans, I’m sure that he gave me words of encouragement, but the only words that I remember from our discussion are, “David, now you’ll find out who your real friends are.”

I knew it would be impossible to do it alone; it would take a good team. Of the three individuals that I approached, one strongly considered it, but in the end, decided not to join the venture. But the other two—Dan Comstock, and Karen Lindsey—proved to be great partners.

As we developed our plans, we would get together in a library meeting room at Cal State University San Marcos to write our business plan. We were confident in the direction we would go, but the most important task we worked on was the buy-sell partner agreements to avoid issues later.

Naming the company was one of our biggest challenges. We wanted a two-syllable word that was easy to pronounce and was not controversial in any language. We had a few options, but we kept coming back to the word ‘Vista’, which is the Spanish word for ‘view’. However, as the name of a small town in California, we thought it might show a lack of global vision.

In one of our meetings, it was proposed that we put an ‘A’ in front of ‘vista’. We were growing tired of the exercise, it sounded good and was easy to pronounce, and we had many other things to do—so it was decided. Years later, we discovered that some gas pumps in Brazil were labeled “A Vista”, which meant that a cash payment was required... which wasn’t such a bad thing.

Once we had a name, we needed a logo, so we hired a small, local firm to help with a design. I was very specific that we did not want a chemical flask, a water drop, or the world in the logo. When we saw the proposed options, we chose one



Avista co-founder and ex-CEO Dave Walker with ROMan



that I thought was great: it included half of a flask, half of a water drop and the globe in the background. My brilliant request was ignored, and the rest is history.

We also needed money to start the company, but neither I, nor my partners, had the necessary cash or resources. I had been under the impression that if we brought a good business plan to the banks, we would be able to secure a loan. The banks were nice enough, and they said they liked the business plan, but it was too risky because we did not have the resources to back the loan.

So, I met with a childhood friend, who had been remarkably successful. I showed him the business plan, and offered him a percentage of the company for his investment. After considering my offer, he said, “If I would get a percentage, it would either be too much or too little, so why don’t I simply loan you the money?” He went on to provide some solid advice, adding, “Your estimation of the required capital is low, so you should probably double it, and I’ll provide you a loan.” Over the course of the first 18 months, his advice proved correct: the amount had to be doubled.

While attending a small regional trade show in 2002, we were developing some momentum, and I was beginning to feel as though the tide had turned. Not just because our sales were increasing, but because we were starting to show stability to industry clients that were initially reluctant to buy from us.

In 2004, the industry consolidation resulting from the M&A activity and other changes in the industry led to the loss of over 50% of our revenue base. It was a strong punch in the gut, but my partners and our employees did not give up, and worked even harder.

By 2017, our momentum was quite strong, with multiple years of double-digit growth, and we had become quite the company. Our market share had grown dramatically, and we were selling into over 92 countries. Our reputation had grown, and competitors were beginning to compare their offerings to Avista.

It was during this time, that we received an unsolicited request from Kurita Water Industries to discuss the sale of the company. We had a good meeting, and liked the Kurita people, but we turned down the request to share our financial information, or entertain an offer. They came back to us two more times over the next year, but we said ‘no’ each time.

The fourth time that they expressed interest, we agreed to share enough of our financial information for them to consider a purchase offer. When they presented the offer in person, I knew it would be difficult to refuse, and had a flood of joyless memories of what it was like to live through an acquisition. But they had listened to my concerns, and thoughtfully addressed them. Most notably, they fully supported my plan for completion bonuses and retention bonuses for every Avista employee.

Entering into an agreement to sell the company was a difficult and emotional decision. There were no contractual or financial earn out requirements for me to stay on as CEO for four years, but I wanted to see it through, and play a part in a successful acquisition and integration.

There were bumps in the road, but the acquisition went smoothly, and the integration outcome was a success because the individuals on both sides worked so diligently to make it work. Kurita decided to keep Avista as its membrane chemical products and services brand, which has been especially rewarding for me, and I have been able to witness the growth, and live vicariously through the team, as they continue to grow and expand their market share.

And, as my Dad told me, I have learned who my *real* friends are.

## IN BRIEF

WDR has learned that the CDM Smith/PCL/Veolia team will not be submitting a proposal on the Doheny SWRO project. The team was one of three teams shortlisted to submit a proposal for the initial, 5 MGD (18,925 m<sup>3</sup>/d) demonstration phase of the South Coast Water District’s first seawater desalination project. The two remaining bid teams are Kiewit/Arcadis/IDE Technologies, and J.R. Filanc/Hazen/Acciona. Proposals for the project—which is to be delivered under a progressive design-build-operate-maintain (DBOM) contract with an operations period of 15 years—are due 28 March. The project commissioning is planned for Q1 2028.

### Global Water Summit

GWl’s Annual Global Water Summit, which includes the Global Water Awards and Tech Idol, will be held at the Sofitel London Heathrow on 15-17 April. For more details, visit <https://www.watermeetsmoney.com>.