

CARIBDA NEWS



VOLUME 1, ISSUE 5 OCTOBER, 2009

CARIBDA-ERI-DOW TRAINING SEMINAR ST. MAARTEN

On September 17 and 18 CaribDA, partnering with ERI Inc. and DOW Water Solutions held a very successful Desalination training seminar on "Energy Efficient RO Operations"

The seminar was held at the Westin Hotel in St. Maarten.



CaribDA board member, Manuel Pereira at the opening as Keynote Speaker.

Co-sponsor for the second day was Seven Seas Water Inc.

The first day was offered by ERI and DOW.

For this occasion, ERI invited Manuel Pereira as the Keynote Speaker. He highlighted the importance of water in the world. Furthermore he described the Mission and Vision of CaribDA. As part of the strategic plan of CaribDA he emphasized the need

for a yearly Operators Training.

Following the keynote address of Manuel Pereira, ERI Sales Manager Sonia Moniz started with the official training session. She highlighted the several project using PX Pressure Exchanger Technology.

DOW's representative

Gloriamar Gamez expended on Membranes and mem-



DOW representative; Gloriamar Gamez during her presentation

brane components in general. She also showed several membrane parts, specifying all the layers in detail. The participants could physically touch and feel the several layers. During the question/answers session several issues were further discussed.

After lunch, ERI Technical Service Director, Rodney Clemente gave a Hands-on Demonstration. *Cont. pag. 3*

WELCOME TO THE 5TH ISSUE OF CARIBDA NEWS

- *Members contributions are welcome. Please contact us by email hgou-verneur@aqualectra.com*
- *Take this opportunity to place your company or plant in the news*
- *Share your experiences with others*
- *If you are interested in joining the editorial staff, please contact us*

CaribDA sponsors:



CARIBDA 2010 CONFERENCE AND EXHIBITION IN FULL PREPARATION

The 2nd Caribbean Desalination Association Conference is in full preparation. Already throughout the desalination community this has been described a must attend conference. The 2nd "Call for Abstracts" will be sent out soon to potential participants. We are receiving

positive reactions and with your contribution we expect to have an excellent technical program. Speaker positions are still open while of table tops remain available for exhibitors. Final negotiations are underway to fix the venue which will be a major hotel in Grand Cayman. We will

have a number of rooms blocked but we remind everyone to register early to make sure that you don't miss out. We will keep you updated via our website.

If you have any questions or concerns, please contact Humphrey Gouverneur at hgou-verneur@aqualectra.com

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Fast Response to US Virgin Island's Pressing Water Demands

To facilitate a much needed rehabilitation project to their thermal desalination units, the Virgin Islands Water and Power Authority (WAPA) recently entered into a public-private partnership with Seven Seas Water Corporation.



Ribbon Cutting at the Dedication Ceremony which was held on June 24, 2009 on St. Croix: Robert Bergstrom, Sr. Business Advisor SSW, Doug Brown CEO SSW, Governor John de Jongh, Hugo Hodge CEO/Executive Director VI Water and Power Authority, Juanita Young Chairwoman of WAPA Governing Board.

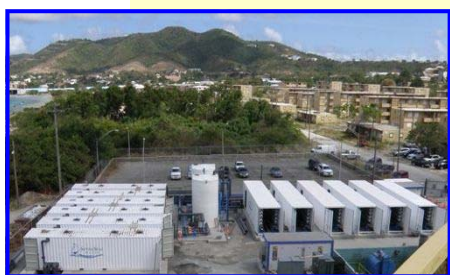
Potable water for the island of St. Croix is primarily provided by WAPA, and the thermal desalination facility which had been expanded over the years to meet population and industrial growth, was near full capacity and in need of rehabilitation. The scheduled maintenance required that portions of the plant be shut down for a period of 18

months, which would result in a deficiency in water production and possible water shortages.

Seven Seas Water maintains a stock of SWRO containerized units for emergency use and to meet expedited timeframes. The combined effort of Seven Seas and WAPA working together resulted in the production and delivery of 1.5 MGD in 92 days from contract signing. During the contract term, Seven Seas is responsible for all operation and maintenance of the SWRO units, and is

contracted for a guaranteed quantity and quality of supply water to WAPA at a fixed cost per gallon – under the build, own, operate service model.

The joint effort and combined strengths of both partners allowed for a solution that would provide a fast, guaranteed, quality supply at a reduced cost to WAPA.



Overview of the final site

provide a fast, guaranteed, quality supply at a reduced cost to WAPA.

Capable of producing up to 1.5 MGD of high quality drinking water, the plant consists of 6 Pre-treatment containers equipped with three 7.5 foot diameter multimedia filters, and six desal containers that each house two 0.125 MGD (473 m³/d) single pass RO trains that produce water with a conductivity of approximately 400 μ S/cm (<200 mg/L). The systems are among the most energy efficient units in the industry and have a complete power consumption of 10.5 kWh/kgal (2.8 kWh/m³).

The intake system utilizes the WAPA existing intake for their thermal unit cooling towers. Water is pulled through four 12" lines and is conveyed to the MMF through two 10" underground feed lines. The concrete pad under the MMF system was designed to allow all of the feed piping to run underneath the systems in a trench. This method was used to allow for ease of installation and in the event of decreased capacity needs, ease of removal without interruption to the rest of the system.

The filtered water is conveyed out of MMF trench through two 10" headers to the SWRO systems. The unit operates at an average flux rates of 8 gallons per square foot per day (GFD) with a maximum single element of 13 GFD. The recovery of each system is designed for 40% recovery at an average feed pressure of 850 psi. Product water is conveyed to the Product Forwarding Tank, pumped into the WAPA product line at 35 psi and onward to the WAPA storage tanks. Brine from the SWRO containers is used to backwash the multimedia filters.

Due to the complexity of the multi-component system, a PLC was developed to run the intake, SWRO and product forwarding sub-systems. The PLC determines which trains are available, looks for systems with the shortest run time to initiate first and watches for system-wide alarms. The PLC also employs an emergency call out system and can be remotely controlled from anywhere in the world with internet access.

IDA NEWLY ELECTED DIRECTOR, REPRESENTING THE LATIN AMERICA AND CARIBBEAN (LAC) REGION.

"Dear Members of the Latin America and Caribbean (LAC) region of IDA ,

Yesterday I had the pleasure and honor of being informed that I was elected to the IDA Board of Directors representing the LAC region.

As our region is unique in that it has only one director representing it on the IDA Board, I felt I should write a brief message to all of you to confirm that it is my intention to represent the interests and the significant experience of the whole region to the best of my ability.

In particular I would like to tell the members from the Caribbean that, although I live in Brazil , I wish to strengthen further my links with the Caribbean , many countries of which I have visited in the past.

I am also willing to play an active role in your local affiliate of IDA , the Caribbean Desalination Association, which I will join.

I hope to be able to participate in your conference in June next year in Grand Cayman. I have had the pleasure to be able of saying this already to your President Mr. Humphrey Gouverneur, who kindly called me.

I would then like to tell the members of Latin America, who at the moment are few in comparison to the interest and experience of its countries, that I hope to be able to facilitate a stronger integration and participation of Latin America in the desalination community at large and in the one of the Caribbean in the first place.

Looking forward to serving the LAC desalination community for the next two years on the IDA Board

my warmest regards

Emilio Gabbrielli"



BOARD ACTIVITIES

***The Board has met 3 times this year by conference call and had a live meeting on October 5th. 2009 .**

The CaribDA held a Board Meetings in order to discuss important issues with regard to the coming activities of CaribDA.

The meeting was held during



CaribDA Board Members during the meeting 5th October 2009 at St. Thomas VI

the CWWA-2009 Conference at the Frenchman's Reef and Morning Star Resort, St. Thomas US Virgin

Island.

The highlights of the Board Meeting were:

1. The Participation of CaribDA during the Affiliation Session at the IDA Congress in November in Dubai.
2. The AMTA/CaribDA Membrane Technology Transfer Workshop to be held in January 2010 in Puerto Rico.
3. Next year's CaribDA Conference to be held in Grand Cayman.
4. Evaluation of the ERI/CaribDA training on Efficiency RO

Operations held in September 2009 in St. Maarten.

Also discussions were held

with the Caribbean Water and Wastewater Association (CWWA)'s Chairman, Mr. W.C. Gibson and the Caribbean Basin Water Management Program (CBWMP)'s Executive Director, Mr. V. Poyotte in order to discuss potential areas of cooperation in the future.

CaribDA can look back at a very successful meeting.

Election for New CaribDA Board of Directors (2010-2012).

Next year a new board will have to be elected. An election committee will be installed to manage the election process . We will invite all members interested to participate in due course.

CONGRATULATION CWWA 20TH. ANNIVERSARY

As mentioned CaribDA had a Board Meeting during the CWWA-2009



Conference. It was the 18th. Annual Conference and Exhibition and the 20th. anniversary of Caribbean Water and Wastewater Association.

Prior the conference (4th. and 5th. Oct. 2009), IDB and UN-Habitat organized a CariWOPs workshop. This to discuss a programme to enhance twinning and exchange between water operators' in the Caribbean Region.



CARIBDA

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WE'RE ON THE WEB
WWW.CARIBDA.COM

**RENEW YOUR MEMBERSHIP
TODAY!!**

Calendar of Events

October 25-27, 2009

SEDA 2009 Fall Symposium
www.southeastdesalting.com

Miami Beach, Florida

November 16-20, 2009

SEDA Membrane Operator School

www.southeastdesalting.com

Dunedin, Florida

CBWMP activities

- Occupation Health & Safety, 5-6 Nov. 2009, in Dominica.
- Annual General Meeting & Stakeholders Conference, 7-9 Dec. 2009, in St. Vincent.

April 11-14, 2010

AWWA Sustainable Water Management Conference & Exposition

www.awwa.org/conferences

November 7-12, 2009

2009 IDA World Congress on Desalination and Water Reuse

www.idadesal.org

The Palm, Dubai, UAE

January 19-20, 2010

AMTA /CaribDA2010 Technology transfer Workshop

www.amtaorg.com

San Juan, Puerto Rico

June 1-4, 2010

CaribDA 2010 Conference & Exhibition

"A view beyond the horizon"

www.caribda.com

Grand Cayman

Cayman Islands

BWA BOTTLLED WATER

GOVERNMENT, through the Barbados Water Authority (BWA), may be getting into the bottled water business. The likelihood of this has been revealed in proposals for a new multi-million dollar Reverse Osmosis Plant to be constructed on Crown lands at the Belle, St. Michael between next year and 2011.

Plans for the project to be undertaken between Government and the private sector on a design, build, own, operate and transfer basis, were outlined in a newly-released Request For Expression Of Interest (RFEOI) document produced by those managing the venture.

According to the document, the new facility, which is to be operated for 20 years, "will be used to blend purified water with general produced water to provide a potable water blend that ensures that World Health Organization drinking water standards will be met". They also disclosed that it was likely that a new water bottling plant would be established to make use of

excess capacity, thereby giving the BWA a new source of revenue.

"The volumetric capacity of the reverse osmosis plant will be in the order of 12 500 cubic metres per day. The project will include a reverse osmosis plant, buildings, chlorination system, potable water reservoir/blend tank with internal baffling and various mechanical components including electric drives, pumps and manifolds to distribution systems," it stated.

Officials have released the RFEOI in a bid to attract interested companies, both local and international. Noting that joint ventures with local entities would be encouraged, the BWA said the purpose of the document was to "solicit interest and to notify competent private proponents of this project".

"The information gathered in this process will be used to short list interested parties based on a ranking of competency. The methodology of ranking will be based on demonstrated and verifiable technical and financial experience and competence in similar projects," it said.

Expressions of interest can be submitted up to the end of next month and contracts are to be awarded in the first quarter of next year.

CARIBDA-ERI-DOW TRAINING

(CONT. PAG.1)



ERI representative, Rodney Clemente during his presentation

All the presenters covered very interesting topics and showed the capabilities of their respective companies.

The second day focused on a more generic approach and was delivered by DHP Training Inc.'s David Paul .

The Seminar, highlighted the topic of "Sea Water Reverse Osmosis Energy Efficiency" and provided the water treatment professional, from the inexperienced to highly experienced, with an understanding of how to minimize energy usage in RO Operations.



Professional Trainer: David Paul during his presentation



The seminar received very high praise from the participants and CaribDA can look back with satisfaction to this event.

CaribDA 2010 Conference & Exhibition

2nd. Announcement and Call for Abstracts

“A View Beyond the Horizon”

The Caribbean Desalination Association 2nd Conference on Desalination and Water Reuse

1st - 4th June, 2010.

Venue: Grand Cayman, Cayman Islands

Call for Abstracts: We herewith invite you to submit abstracts on the subjects of desalination and waste water reuse and related topics. The abstract must be approximately 200 words submitted in Microsoft Word format, Times Roman font, 12 pt, with the paper title, author(s) affiliation and bio data for consideration to present at the 2010 CaribDA conference programme.

Deadline for Abstract submissions is 30th November 2009.

Send all abstract submissions to hgouverneur@aqualectra.com

Conference topics will be:

- **Technology & Innovation**
- **Finance & Economics**
- **Planning and Management**
- **Regulations and the Environment**

CARIBDA CONFERENCE & EXHIBITION PROGRAM

| | | |
|----------------|---------------|--|
| June 1: | 14:00 – 16:00 | General members meeting (CaribDA members only) |
| | 16:00 – 17:00 | Meeting with Speakers / set up / testing |
| | 17:00 – 19:00 | Get Acquainted ‘Welcome Cocktail Reception’ and Official Opening of the Exhibition |
| June 2: | 09:00 – 10:00 | Opening ceremonies and Keynote Speaker’s address |
| | 10:00 – 10:30 | Coffee Break |
| | 10:30 – 12:30 | Conference: Paper Sessions |
| | 12:30 – 14:00 | Lunch |
| | 14:00 – 16:30 | Conference: Paper Sessions |
| June 3: | 09:00 – 10:00 | Keynote Speaker’s address |
| | 10:00 – 10:30 | Coffee Break |
| | 10:30 – 12:30 | Conference: Paper Sessions |
| | 12:30 – 14:00 | Lunch |
| | 14:00 – 16:30 | Conference: Paper Sessions |
| | 20:00 – 24:00 | Formal Banquet Dinner |
| June 4: | 09:00 – 12:00 | Plant tour(s) to water desalination/wastewater treatment installations) |



There will be a number of table tops available for exhibitors. Sponsorship packages are available.

For more information, please contact: