



NWMOA
Northwest Membrane Operator Association

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Visit **NWMOA** on the Web !

www.nwmoa.com

NWMOA NEWS

MESSAGE FROM THE PRESIDENT

By: Jan Wellman, *City of Cottage Grove*

March 26, 2013 will be the one-year anniversary of the formation of the Northwest Membrane Operator Association and, our membership continues to grow.

We have workshops planned for 2013 in Pendleton, Washington, and Salt Lake City, Utah. The Salt Lake City workshop will be a joint event with the American Membrane Technology Association. NWMOA's annual conference is scheduled for September 23-25, 2013 in Vancouver, Washington. We are currently seeking sponsorships for the annual conference and, we have released a call for papers to solicit presenters.

Any current NWMOA member that has an interest in serving on any of our subcommittees or on the Board of Directors, please contact us. We are always looking for new ideas and new workshop topics that would be of interest to our membership. If you have a specific need or require specialized technical assistance in the area of membrane operations and maintenance, we can help with that too.

We have very ambitious goals but we need your membership and continuing support to help ensure the future of NWMOA. Our goal is to provide education and support for membrane treatment operators throughout the Northwest. If you would like more information about NWMOA, please visit our website at www.nwmoa.com or call 208-577-6519.

MESSAGE FORM THE AWARDS CHAIR

By: Jordi Figueras, P.E., *Pharmer Engineering, LLC*

Hello everyone,

We would like to encourage you to submit an application form to nominate an individual or a membrane facility for the Board's consideration for Plant or Operator of the Year. The deadline to submit applications is June 30th. Please help us recognize those individuals and facilities that have proven outstanding commitment, performance and involvement in the membrane community. The nomination forms are attached or you can download them at www.NWMOA.com. The winner will be announced Tuesday, September 24th, during the Awards Luncheon at the NWMOA annual Symposium in Vancouver, WA. We hope to see you there!

Sincerely,

Jordi Figueras, P.E.

For more information, please see page 2

2013 CALL FOR AWARD NOMINEES

Continued from page 1

Northwest Membrane Operator Association "Operator of the Year" Award Criteria

- The award recipient must have worked for at least one year as a licensed plant operator in a facility that contains at least one membrane based treatment process.
- The recipient should exhibit a job effort that is above and beyond the normal requirement for his or her position.
- The recipient should demonstrate a working knowledge of membrane processes and a willingness to further their knowledge on a regular basis.
- The recipient should demonstrate the ability to positively represent his or her employer in the water or wastewater industry.
- An evaluation of the candidate's work experience, honors, character, self reliance, and leadership will be used to select the award recipient.
- It is preferable that the award nominees have a letter of recommendation from their supervisor or other management personnel.
- It is preferable that the candidate be active in industry organization such as NWMOA, AMTA, AWWA, WEF, or CWEA.

Northwest Membrane Operator Association "Operator of the Year" Compensation

- The award recipient will be announced at the NWMOA Annual Symposium and receive a plaque recognizing this achievement. In addition, the recipient's achievement will be mentioned in the NWMOA quarterly newsletter and posted on the NWMOA website.
- A letter will be written by the NWMOA president to the winner's manager acknowledging the achievement.
- Winner will receive one free annual symposium registration to be used at the symposium following that which the award was received.

Northwest Membrane Operator Association "Plant of the Year" Award Criteria

- Two awards will be given; one for large plants and one for small plants.
- The treatment plant shall employ at least one membrane based treatment process.
- The plant shall be a public or private facility providing treatment for potable water use, wastewater treatment, or reclaimed water treatment.
- The treatment plant shall have exhibited an exemplary safety record.
- The treatment plant should demonstrate a history of minimum and preferably no permit violations as recorded by the local regulating body.
- The treatment plant should consistently be neat and clean in appearance with minimal impact for surrounding neighbors.
- It is preferable that the plant be used by its owner to educate the public on water supply, water quality, treatment, and/or reuse.

Northwest Membrane Operator Association "Plant of the Year" Compensation

- The award recipient will be announced at the NWMOA Annual Symposium and receive a plaque recognizing this achievement. In addition, the recipient's achievement will be mentioned in the NWMOA quarterly newsletter and on the NWMOA website.
- A letter will be written by the NWMOA president to the manager of the winning treatment plant acknowledging the achievement.

2013 ANNUAL CONFERENCE UPDATE

By: Tom Seacord, *Carollo Engineers, Inc.*; NWMOA Program Committee

NWMOA's first annual conference in Vancouver, WA (Sept 23-25) is approaching and our programs committee has started to reach out to solicit sponsors. We plan to have a dual track program for a portion of our annual meeting to focus on drinking water and MBR applications separately. Feel free to contact me (tseacord@carollo.com) if you have any questions.

If your company is interested in sponsoring this event, we have several opportunities, including:

1. **Bag Sponsor: \$2,000**

Benefit: Logo on bags, recognition during the event as bag sponsor.

2. **Platinum Sponsor: \$1,200**

Benefit: 1 Exhibit package or 2 full registrants. Recognition at reception and at lunches.

3. **Gold Sponsor: \$900**

Benefit: 1 Exhibit package or 2 full registrants. Recognition at lunches.

4. **Silver Sponsor: \$600**

Benefit: Recognition at refreshment breaks.

5. **Bronze Sponsor: \$300**

Benefit: Recognition at hands-on training.

6. **Lanyards: \$750**

Benefit: Logo on lanyards.

TABLE TOP EXHIBITS (Table Top Backdrops Only)

Reach key decision makers in the membrane technology industry in a short amount of time. This Symposium offers great opportunities. Exhibitors will receive a list of attendees two weeks prior to event (sent via email). Each Table Top Booth will cost \$650.

ALL EXHIBIT SPACES WILL BE SELECTED ON-SITE ON A FIRST COME/FIRST SERVED BASIS

All Table Top Exhibitors will receive:

- One 6' Table (Chairs are available upon request).
- One full attendee registration to the Symposium.
- Electricity is available from the Hotel for an additional fee.

All sponsors and exhibitors will receive:

- List of attendees sent via e-mail two weeks prior.
- Acknowledgement in the materials - 100-word company description.
- Sign recognition during the program.
- Company logos will be included in the program for those sponsorships received before the program is sent to the printer (May 2013).

SPONSORSHIP OPPORTUNITIES...

All sponsorship is available on a first-come, first-serve basis. You can sign-up by contacting NWMOA today 208-577-6519.

TIPS CORNER: MBR BIOLOGICAL FOULING & CONTROL

By: Tom Seacord, *Carollo Engineers, Inc.*

MBR Biological Fouling & Control

Biology as well as other inorganic factors can play an important role in MBR fouling. While the role that biology plays in MBR fouling is still an emerging field of study, there seems to be some data that indicates that fouling events are the result of the MBR's biology forming extracellular polymeric substances (EPSs). It has been suggested that EPSs are formed when:

- Your plant's SRT is too low, or
- The biological matter becomes stressed due to low oxygen or highly variable influent water quality - e.g., temperature and BOD loading conditions.

MBR plants should have good control over SRT, oxygen level and to a degree MLSS concentration in the membrane tank and should strive to find and maintain optimum conditions for each.

Variations in the influent water quality may, however, be difficult to control and these variations may cause fouling events. In particular, some smaller MBR plants may have difficulty controlling biological stress, EPS formation and subsequent fouling due to their inability to buffer variable influent conditions (e.g., temperature or BOD load) using equalization volume ahead of the plant. These small plants may rely on the MBR tank itself for flow equalization. This lack of buffering (equalization) volume may contribute to biological stress, EPS formation and membrane fouling.

Operators should gather enough data to predict what conditions work best for your plant and what the causes of variable conditions may be. If these variable conditions can be controlled, seek ways to implement changes to keep the biological conditions stable. Collect and analyze your influent BOD, temperature, pH and your process MLSS, filterability, dissolved oxygen and pH routinely. The literature on MBR fouling suggest that your plant's SRT should be at least 10-12 days (which also maintains nitrifying conditions) and always maintain your oxygen levels - automated oxygen control is highly recommended. Keep in mind you will need to make adjustments if variable conditions cannot be controlled, anticipate these changes and be prepared to make process adjustments at the right time, or be prepared to perform cleanings. This will help you make certain that your membranes can successfully treat your wastewater flows when needed.

UPCOMING EVENTS

SEPT. 23-25, 2013

2013 Annual Conference

*"Getting the Best from Your Membrane
Treatment Plant"*

Vancouver, WA

Hilton Vancouver, WA

DEC. 9-11, 2013

AMTA/NWMOA Jt. Workshop

"This is the Place - Let there be Membranes"

Salt Lake City, UT

Radisson Hotel

SPREAD THE WORD ABOUT NWMOA!

NWMOA is dedicated to providing a forum for membrane system operators to exchange information, experience and knowledge. As important, NWMOA provides educational credits through workshops and hands-on training necessary for Operator Certification. NWMOA's goal is to make the vital industry stronger and the technology more reliable. Prospective members can find application information online on our website at www.nwmoa.com.

MEMBERSHIP UPDATE

By: Jill Miller, *City of Bozeman Water Treatment Plant*

NWMOA has 110 members and are continuing to grow. Members are reminded that if your dues have not been paid, please get them paid as soon as possible. Members are busy recruiting and spreading the word about NWMOA to operators and other interested parties in the Northwest.

NWMOA Is Proud To Welcome

Art Allen
City of Fruitland

Alfred Alvarez
City of Jerome

Jeremy M. Aulbach
Pharmer Engineering, LLC

Zane Austin
City of Jerome

Mike Axelgard
*Jordan Valley Water Conservancy
District*

Kent Baker
Winston-Dillard Water District

Don Bennett
City of Jerome

Phil Bonsi
*North Clackamas County Water
Commission*

Charlie Borden
Roberts Creek Water District

Mike Bussert
Micron Corporation

Roy Daly
CSM Woongjin Chemical America, Inc.

Royce O. Davis
City of Kuna

Michelle DeHaan
*Park City Municipal Corporation, Water
Department*

Ray Eaton
Avista Technologies, Inc.

Tarek El-Shafie
American Water Chemicals, Inc. (AWC)

Keith Ewing
Winston-Dillard Water District

Harold G. Fravel
*American Membrane Technology
Association*

Curt Giese
Micron Corporation

Jay Glazier
*Park City Municipal Corporation, Water
Department*

Seth Goertz
United Water Idaho

Brad Henry
City of Jerome

Ron Hoole
Lake Stevens Sewer District

Will Hope
Roberts Creek Water District

Paul Jerominski
*Park City Municipal Corporation, Water
Department*

Ben Kennedy
Micron Corporation

Candace Keogler
Winston-Dillard Water District

Larry Littrell
Lake Stevens Sewer District

Brad Mabey
*Jordan Valley Water Conservancy
District*

Mo A. Malki
American Water Chemicals, Inc.

David Mclean
*Jordan Valley Water Conservancy
District*

Brandon Miller
United Water Idaho

Ken Mitchell
*Park City Municipal Corporation, Water
Department*

Matthew Montgomery

Ricky L. Murray
Micron Corporation

Alan Paulson
Roberts Creek Water District

Dean Perman
Micron Corporation

Clint Rabern
Roberts Creek Water District

Dan Radford
Roberts Creek Water District

Landon Rainwater
Winston-Dillard Water District

Alan Schacht
*North Clackamas County Water
Commission*

Ray Stokes
*Jordan Valley Water Conservancy
District*

Shazelle Terry
*Jordan Valley Water Conservancy
District*

Arthur (Michael) M. Trent
*Water Environment Services,
Clackamas County*

Jeremy J. Wolford
Roberts Creek Water District

Kenneth Yoon
CSM Woongjin Chemical America, Inc.

Martin You
CSM Woongjin Chemical America, Inc.

Robert A. Young
Winston-Dillard Water District

NWMOA NEEDS YOUR INPUT FOR THE NWMOA NEWS!

- Your individual contributions are welcomed and appreciated.
- If you would like to take a more active role, become a member of the newsletter committee!
- Contact us at: publications@nwmoa.com to submit articles or for more information on becoming a newsletter committee member.

COMMITTEE CHAIRS:

	<u>Member</u>	<u>Company</u>	<u>Phone</u>	<u>Email</u>
<u>AMTA Liaison:</u>	YuJung Chang	HDR Engineering, Inc.	425-450-6275	yujung.chang@hdrinc.com
<u>Awards:</u>	Jordi Figueras	Pharmer Engineering LLC	208-433-1900	jfigueras@pharmereng.com
<u>Bylaws & Policies:</u>	Jan Wellman	City of Cottage Grove	541-942-3349	pwdirector@cottagegrove.org
<u>Nomination/Election:</u>	Jill Miller	City of Bozeman	406-586-7158	jmiller@bozeman.net
	Jordi Figueras	Pharmer Engineering LLC	208-433-1900	jfigueras@pharmereng.com
	Tom Seacord	Carollo Engineers, Inc.	208-376-2288	tseacord@carollo.com
<u>Executive (officers):</u>	Jan Wellman	City of Cottage Grove	541-942-3349	pwdirector@cottagegrove.org
<u>Finance:</u>	Chad Busch	Park City Municipal Corporation, Water Dept.	435-615-5332	chad.busch@parkcity.org
<u>Legislative:</u>	Bob Patterson	City of Pendleton	541-966-0202	bob.patterson@ci.pendleton.or.us
<u>Membership:</u>	Jill Miller	City of Bozeman	406-586-7158	jmiller@bozeman.net
<u>Operator Certification:</u>	Chris Allen	GE Water & Process Technologies	208-319-3512	chris.allen@ge.com
<u>Publications/Newsletter:</u>	Jan Wellman	City of Cottage Grove	541-942-3349	pwdirector@cottagegrove.org
<u>Program:</u>	Tom Seacord	Carollo Engineers, Inc.	208-376-2288	tseacord@carollo.com
	Ray Pardee	City of Cottage Grove	541-942-7094	water@cottagegrove.org
<u>Public Relations:</u>	Tom Seacord	Carollo Engineers, Inc.	208-376-2288	tseacord@carollo.com
<u>Technology Transfer:</u>	Dave Davis	North Clackamas County	503-723-3505	davedavis2133@comcast.net



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Northwest Membrane Operators Association (NWMOA) formed March 26, 2012 is the newest affiliate of the American Membrane Technology Association dedicated to the Northwest United States region including, but not limited to, Alaska, Idaho, Montana, Oregon, Utah, Washington and Wyoming.

NWMOA is a membrane operators group that has been formed to provide membrane operators a forum to exchange information, share experiences and knowledge, obtain training and acquire continuing education credits necessary for Operator Certification requirements.

NWMOA is an organization that is for membrane operators, run by membrane operators and has been established to meet the technical needs of membrane operators. The number of membrane based treatment plants is growing rapidly in the northwest. With that growth there is a need for an organization dedicated to the education, training and networking of people involved in membrane technology. NWMOA is dedicated to filling that need, with our focus on training membrane plant operators.

BOARD OF DIRECTORS

EXECUTIVE OFFICERS

<u>Member</u>	<u>Term</u>	<u>Company</u>	<u>Phone</u>	<u>Email</u>
Jan Wellman - President	2011-2014	City of Cottage Grove	541-942-3349	pwdirector@cottagegrove.org
Dave Davis - Vice President	2011-2013	North Clackamas County Water Commission	503-723-3505	davedavis2133@comcast.net
Chad Busch - Treasurer	2011-2013	Park City Municipal Corporation, Water Dept.	435-615-5332	chad.busch@parkcity.org
Tom Seacord - Secretary	2011-2014	Carollo Engineers, Inc.	208-376-2288	tseacord@carollo.com

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YuJung Chang	2011-2014	HDR Engineering, Inc.	425-450-6275	yujung.chang@hdrinc.com
Jordi Figueras	2011-2013	Pharmer Engineering LLC	208-433-1900	jfigueras@pharmereng.com
Jill Miller	2011-2014	City of Bozeman	406-586-7158	jmiller@bozeman.net
Bob Patterson	2011-2014	City of Pendleton	541-966-0202	bob.patterson@ci.pendleton.or.us
Chris Allen	2011-2013	GE Water & Process Technologies	208-319-3512	chris.allen@ge.com