



## 2011 Symposium

**Agenda for the 17th Annual Aquatic Animal Life Support Operators Symposium, Walt Disney World, Orlando, FL.**

### **Sunday, May 22**

12:00 - 4:00 pm Vendor Registration

4:00 - 7:00 pm Operator & Guest Registration

6:00 - 9:00 pm Ice Breaker / Vendor Interaction - Hosted by the AALSO Officers & Board of Directors

### **Monday, May 23**

7:30 - 8:30 am Registration

8:30 - 9:00 am Welcome & 2011 Host Facility Spotlight - Tom Hopkins, Walt Disney Parks & Resorts U.S.

9:00 - 10:00 am Vendor Introductions - Jack Felts, Plast-O-Matic Valves, Inc. & Vendors

10:00 - 10:30 am Break / Vendor Interaction

10:30 - 11:00 am The History of Life Support Design: Sumeria to Orlando - Paul Cooley, MWH Americas

11:00 - 11:30 am Systems History of Monterey Bay Aquarium - Eric Quamen, MBA

11:30 am - 12:00 New Directions in Life Support - Chris Warner, Aquatic Environmental Systems

12:00 - 1:00 pm Lunch / Vendor Interaction

1:00 - 1:30 pm Recovery, Treatment and Re-use of Multi-Exhibit Backwash Wastewater - Steven Keuper et al., Georgia Aquarium

1:00 - 1:30 pm Workshop -- Valves for Use in Control Applications - Dave Hurley, Asahi America, Inc. (advanced sign-up required; concurrent with session above)

1:30 - 2:00 pm Polar Frontier: Geothermal Energy at the Columbus Zoo & Aquarium - Joel Yankie, Columbus Zoo & Aquarium

1:30 - 2:00 pm Workshop -- Centrifugal Pump Start-Up and Field Testing - William (Bill) Parry, Dean Pump, Fybroc, Sethco – Met-Pro Global Pump Solutions. (advanced sign-up required; concurrent with session above)

2:00 - 2:30 pm Ultrasonic and Liquid Arc Induced Cavitation Technologies Used in Controlling Algae, Biofilm, Shellfish Attachment and Water Purification - George Hutchinson, AlgaeControl US

2:30 - 3:00 pm Aquarium Science Program: Presenting Opportunities, Fulfilling Dreams and Developing A Skilled, Knowledgeable and Capable Workforce - Bruce Koike, et al., Oregon Coast Community College, Aquarium Science Program

2:00 - 3:00 pm Workshop -- Pump Seals - Darrell Martin & Mike Dell, Advanced Sealing International. (advanced sign-up required; concurrent with sessions above)

3:00 - 3:30 pm Break / Vendor Interaction

3:30 - 4:00 pm Certification Preparation Levels 1, 2 & 3, "Chemistry" - Kent Semmen, Walt Disney World; Joe Sollowin, Downtown Aquarium & Brooke Taylor, Aquatic Eco-Systems

4:00 - 10:00 pm Free evening. Discounted park tickets available

### **Tuesday, May 24**

8:30 - 9:00 am LSS Systems and BAS Systems Coexisting? - George Tenhagen, Busch Gardens

9:00 - 9:30 am Introduction to Programmable Microcontrollers for LSS Applications - Matt Hoard, The Marine Mammal Center & John Hale, RCK Controls, Inc

9:00 - 9:30 pm Workshop -- Centrifugal Pump Start-Up and Field Testing - William (Bill) Parry, Dean Pump, Fybroc, Sethco – Met-Pro Global Pump Solutions. (advanced sign-up required; concurrent with session above)

9:30 - 10:00 am Making Old Infrastructure Accommodate New Technology - Ivey Burns, Walt Disney World

8:30 - 10:00 am Workshop -- PVC Solvent Cementing Pressurized Piping [ASME B31.3] - Newell Rollins, Harrington Plastics & Terry McPherson, IPS Corporation. (advanced sign-up required; concurrent with sessions above)

10:00 - 10:30 am Break / Vendor Interaction

10:30 - 11:00 am Certification Preparation Levels 1, 2 & 3, "Math" - Kent Semmen, Walt Disney World; Joe Sollowin, Downtown Aquarium & Brooke Taylor, Aquatic Eco-Systems

Each of the following four 30-minute Workshops will be offered on a rotating basis; twice before Lunch at 11:00 & 11:30 am, and twice after Lunch at

1:00 & 1:30 pm:

11:00 am Workshop -- Servicing Vacuum-Based Oxygen-Fed Ozone Generators - David Harmon, Del Ozone. (advanced sign-up required)

Workshop -- Oxygen Generator Maintenance - Alex Hernandez, AirSep Corporation. (advanced sign-up required)

Workshop -- Pump Cavitation - Ben Lapus & Bill Voigt, Voigt-Abernathy. (advanced sign-up required)

Workshop -- Level Control Without a Controller - Gary Niebish, Flowline. (advanced sign-up required)

12:00 - 1:00 pm Lunch / Vendor Interaction

1:00 pm 30-minute rotating Workshops as listed above

2:00 - 2:30 pm Process Optimization Via Automated Data Capture & Interpretation - Lonnie Lamb, Walt Disney Company

2:30 - 3:00 pm Smart Pump Variable Frequency Drives - What are the Differences? - Scott Mathews, Yaskawa Electric America, Inc

2:00 - 3:00 pm Workshop -- ORP and pH Sensor Calibration - Dave Vollaie, GF Signet. (advanced sign-up required; concurrent with sessions above)

3:00 - 3:30 pm Break / Vendor Interaction

3:30 - 4:00 pm Process Control for Aquatic Life Support - Ed Cellucci, Plast-O-Matic Valves, Inc

4:00 - 4:30 pm Air-Fed vs. Oxygen-Fed Ozone Generating Systems; Which is More Desirable for Aquatic Facilities in Terms of Animal Safety and Facility Economics - Mickey Walsh, Fin-Tek Corporation

3:30 - 4:30 pm Workshop -- Pump Seals - Darrell Martin & Mike Dell, Advanced Sealing International. (advanced sign-up required; concurrent with sessions above)

6:00 - 10:00 pm Reception / Dinner / Tour at Epcot Living Seas

### **Wednesday, May 25**

8:30 - 9:00 am Minnesota Zoological Gardens, 2012 Host Facility Spotlight - Matt McLaughlin, MZG

9:00 - 9:30 am The Seas with Nemo and Friends. "How to take care of old water" - Kent Semmen, Walt Disney World

9:30 - 10:00 am 90 Year Evolution of Improving Seawater - Laurie Kormos, Steinhart Aquarium

8:30 - 10:00 am Workshop -- PVC Solvent Cementing Pressurized Piping [ASME B31.3] - Newell Rollins, Harrington Plastics & Terry McPherson, IPS Corporation. (advanced sign-up required; concurrent with sessions above)

10:00 - 10:30 am Break / Vendor Interaction

10:30- 11:00 am Water Science Automation, A History of Success and Failure at Walt Disney World - Tom Nicodemo, Walt Disney World

10:30- 11:00 am Workshop -- Valves for Use in Control Applications - Dave Hurley, Asahi America, Inc. (advanced sign-up required; concurrent with session above)

11:00 - 11:30 am New Nitrate and Total Ammonia Analytical Procedures in Use at Monterey Bay Aquarium - Eric Kingsley et al., MBA

11:30 am - 12:00 A Commercial Marine Passive Denitrification System Using Biodegradable Biopolymer (PHA's) - James Ebeling, et al., Aquaculture Systems Technologies, LLC

11:00 am - 12:00 Workshop -- ORP and pH Sensor Calibration - Dave Vollaie, GF Signet. (advanced sign-up required; concurrent with sessions above)

12:00 - 1:00 pm Lunch / Vendor Interaction

1:00 - 1:30 pm Business Meeting & Elections

1:30 - 4:00 pm Certification Testing Levels 1, 2 & 3 - Kent Semmen, Walt Disney World; Joe Sollowin, Downtown Aquarium & Brooke Taylor, Aquatic Eco-Systems

6:30 - 10:00 pm AALSO Certification Banquet



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