



## 2012 Symposium

**Agenda for the 18th Annual Aquatic Animal Life Support Operators Symposium, Minnesota Zoo, Minneapolis, MN.**

### **Sunday, May 20**

12:00 - 4:00 pm Vendor Registration

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

6:00 - 10:00 pm Ice Breaker / Vendor Interaction

### **Monday, May 21**

7:00 - 8:00 am Registration / Breakfast

8:00 - 8:30 am Welcome & 2012 Host Facility Spotlight - Wes Schmidt, Minnesota Zoo

8:30 - 9:30 am Vendor Introductions - Jack Felts, Plastomatic Valves, Inc. & Vendors

9:30 - 10:00 am Defender Regenerative Media Filters in Selected LSS Applications -- Bob Hawken & Scott Hyland, Neptune Benson

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

10:30 - 11:10 am 40-minute concurrent Rotating Workshops

- Ozone Generator Trouble Shooting and Service - John Gaudaur, Ozone Water Systems
- Pump Curves and Pump Sizing - Benjamin Ashe, MDM Inc.
- Valve Automation. Process Control Via Control Element & Actuators – Including Valve & Actuator Integration Assembly & Maintenance - Ed Cellucci, Plastomatic, Inc.
- Proper Calibration and Maintenance for DO, pH and Conductivity Sensors - Darrin Honious, Yellow Springs Instrument Co.

10:30 - 11:10 am Panel Discussion. The Process of System Design: Operators Making a Difference - Joe Arlotto, MWH (Concurrent with Workshops above)

11:10 - 11:20 am Break

11:20 am - 12:00 40-minute concurrent Rotating Workshops Same 4 Workshops as above

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

1:00 - 1:40 pm 40-minute concurrent Rotating Workshops

- Air Dryer and Oxygen Concentrator Service - John Gaudaur, Ozone Water Systems
- Pump Curves and Pump Sizing - Benjamin Ashe, MDM Inc.
- Pump Maintenance - William Parry, Met-Pro Global Pump Solutions
- Proper Calibration and Maintenance for DO, pH and Conductivity Sensors - Darrin Honious, Yellow Springs Instrument Co.

1:40 - 1:50 pm Break

1:50 - 2:30 pm 40-minute concurrent Rotating Workshops

- Same 4 Workshops as above

2:30 - 3:00 pm Introduction to LED "Myths Busted & Opportunities Explored" - Lee Cush, Philips Lighting

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

3:30 - 4:00 pm O3: Take 2 - Arnel Bautista, Steinhart Aquarium, California Academy of Sciences

4:00 - 4:30 pm Ozone Retrofit at Atlantis Paradise Island - John Gaudaur, Ozone Water Systems & Andy Aiken, National Aquarium in Baltimore

3:30 - 4:30 pm Workshop. Fusion Piping Systems - Brandon Baker, Ryan Herco. Concurrent with presentations above.

5:30 - 10:00 pm Minnesota Zoo Event. Buses depart the hotel at 5:30.

### **Tuesday, May 22**

7:00 - 8:00 am Breakfast

8:00 - 8:30 am Presentation TBA

8:30 - 9:00 am Solid Phase Denitrification, a Sustainable Technology for Reducing Nitrate and Phosphate Concentrations - Douglas Drennan, et al, Aquaculture Systems Technologies, LLC

9:00 - 9:30 am High Efficiency Autotrophic Denitrification - Andy Aiken, National Aquarium in Baltimore

9:30 - 10:00 am Metals in Aging Aquaria and Possible Strategies for Their Extraction - Jeffery Keafaber & Benjamin Killian, University of Florida; Kent Semmen, 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. Concurrent with presentations above.

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

10:30 - 11:10 am 40-minute concurrent Rotating Workshops

- ORP and pH Sensor Maintenance and Calibration - Dave Vollaire, GF Signet
- Installation Tips for Ball and Butterfly Valves - Dave Hurley & Joe Poniatowski, Asahi America
- Pump Life-Cycle Cost Analysis & Energy Savings - William Parry, Met-Pro Global Pump Solutions
- Heat Exchanger Preventative Maintenance - Rick Murray, Delta Hydraulics LLC

11:10 - 11:20 am Break

11:20 am - 12:00 40-minute concurrent Rotating Workshops

- Same 4 Workshops as above

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

1:00 - 1:40 pm 40-minute concurrent Rotating Workshops

- Flow Meters - Sensor Maintenance and Choosing the Right Sensor - Dave Vollaire, GF Signet
- Ultraviolet Sterilizer Maintenance - Steve Zimmer, Emperor Aquatics, Inc.
- Pump Seals - Darrell Martin & Mike Dell, Advanced Sealing International
- Heat Exchanger Preventative Maintenance - Rick Murray, Delta Hydraulics LLC

1:00 - 1:40 pm Panel Discussion. The Process of System Design: Operators Making a Difference - Joe Arlotto, MWH (Concurrent with Workshops above)

1:40 - 1:50 pm Break

1:50 - 2:30 pm 40-minute concurrent Rotating Workshops

- Same 4 Workshops as above

2:30 - 3:00 pm Certification Preparation Levels 1, 2 & 3, "Math & Chemistry" - Brooke Taylor, Waterlife Design Group & Paul Thomas, Six Flags Discovery Kingdom

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

3:30 - 4:00 pm Variable Frequency Drive Set-ups for Controls Automation - Greg Olson, Mulcahy Company

4:00 - 4:30 pm Re-Engineering a Filter Backwash System - Donald Seymour, Adventure Aquarium

3:30 - 4:30 pm Workshop. Fusion Piping Systems - Brandon Baker, Ryan Herco. Concurrent with presentations above.

4:30 - 7:30 pm Special Event, Vendor Interaction

### **Wednesday, May 23**

7:00 - 8:00 am Breakfast

8:00 - 8:30 am 2013 Host Facility Spotlight

8:30 - 9:30 am The Blue - Green Alliance - Mark Fischer, Cincinnati Zoo

9:30 - 10:00 am Two Oceans Aquarium's Endeavor to Walk the Talk - Mike de Maine, Two Oceans Aquarium, Cape Town, SA

8:30 - 10:00 am Workshop. PVC Solvent Cementing Pressurized Piping [ASME B31.3] - Newell Rollins, Harrington Plastics; Terry McPherson, IPS Corporation. Concurrent with presentations above.

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

10:30 - 11:00 am Total Building Energy Monitoring - John Mitro, Delta Controls

11:00 - 11:30 am Partnering with Your Local Utility Provider: How Operating Green Can Save You Green - Paul Thomas, Six Flags Discovery Kingdom

11:30 am - 12:00 How to Measure Successful Energy/Resource Conservation Projects - Doug Hargrave, Iconergy Ltd.

11:00 am - 12:00 Workshop. Fusion Piping Systems - Brandon Baker, Ryan Herco. Concurrent with presentations above.

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

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

1:30 - 2:00 pm Vendor Meeting (Vendors only)

1:30 - 4:00 pm Certification Testing Levels 1, 2 & 3 - Brooke Taylor, Waterlife Design Group & Paul Thomas, Six Flags Discovery Kingdom

6:30 - 9:00 pm AALSO Certification Banquet



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