



Sustainable Management Resources Inc

Creating a Sustainable New Economy

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:: Training Class ::
Thursday November 13th 2008
San Diego, CA 8:00am to 5:00pm

"LEED HVAC Optimization - Engineering through Commissioning"

Steve Kaplan
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Sustainable Management Resources Inc.
is pleased to offer the following workshop:

**Guest Speaker: Roy McBrayer State of California Deputy State Architect,
Program Manager, Green Action Team, State Department of General Services**

Mr. McBrayer is the Program Manager of Governor Schwarzenegger's Green Action Team, which directs and oversees progress on the Governor's Green Building Executive Order (S-20-04). He leads the Department of General Services' Green Team, which provides program management, environmental policy, and oversight for state building, energy, sustainability, and purchasing efforts. Mr. McBrayer has also served in various state leadership positions with the California Performance Review, leading efforts in energy management, information technology, and procurement.

- **SMRI** will address building mechanical systems which represent 40% of new facility development and operating costs.
- This class is designed for owners, architects, project managers and contractors who are responsible for financial results and sustainable building performance.
- Attendees will learn strategies in engineering, construction, commissioning and managing for sustainability to include HVAC equipment optimization.
- Attendees will learn to maximize operational cost control for: Metal, Carbon, Energy, Water and Cooling Tower Water, to include Treatment strategies.
- This class will address key areas of development that oversee the profit and loss of facility mechanical systems.

- LEED credit assessment concerns will be addressed in the areas of:
 - Water and Resource Management
 - Energy and Atmosphere
 - Commissioning of Building Requirements



S T R A T E G Y

The November 13th, 2008 class covers hands on field engineering optimization techniques to secure sustainable economic results and score LEED points for:

- **HVAC and Water Energy Efficiency**
- **Engineering through Commissioning**
- **Sustainable Optimization**

Watergy

- **The link between Energy and Water – Facts:**
 - Total electricity consumption of water & wastewater sectors will grow by 33% in the next 20 years
 - How much energy is used to provide water & wastewater services
 - US =’s 75 billion kWh; 3% of total electrical consumption
 - Less than 1% of fresh water is readily accessible for direct human use
- **Water resource management – Fact:** Saving water through efficiency costs 1/3 less than developing new capacity
 - Supply side efficiency measures
 - Demand side efficiency measures
 - Comprehensive demand /supply side approach synergies
- **What goes in must come out**
 - Improving the wastewater treatment process
 - Focus on preliminary and primary treatment to reduce secondary treatment
- **Can you actually be Zero-Net-Energy at a Waste Water Treatment Plant?**
 - Water Reclamation and Reuse = reduced energy, not reduced water
- **Tools, Resources & Technologies for Watergy Efficiency Teams**
 - Demand-Side: Residential, Commercial and Industrial
 - Codes & Policies
- **LEED requirements and credit opportunities in water resource management and treatment are also addressed**





S T R A T E G Y

All Variable Speed Optimization

- All variable speed for chiller plants
- All variable speed for variable air volume systems
- All variable speed primary loop versus primary secondary loop
- Air cooled to water cooled conversion strategies
- Turbocor compressor retrofit applications
- Turbocor manifold designs
- Turbocor control panel enhanced functionality
- Demand based controls through network calculations
- LEED Energy & Atmosphere credits through the EPA's Portfolio Manager

Continuous Performance Commissioning

- kW per ton benchmarking
- kW per ton total system performance
- Hands on performance commissioning
- Eliminating retro commissioning costs
- Benchmarking water resources
- Cooling tower water and chemicals: stabilization and conservation
- What metrics should be utilized (cost, supply, and demand)
- What instrumentation should be utilized?
- LEED commissioning credits: Measurement & Verification

The November 13, 2008 class will be held from 8am to 5pm in San Diego California, food will be provided. Registration fees for this class will be \$395.00. Venue address will be furnished upon registration.

**To register for the November 13, 2008 class please visit the following link which will provide registration and secure payment method, <http://sustainablemri.com/nov2008class.html> or please send checks to Sustainable Management Resources, Inc
P.O. Box 910760
San Diego, California 92191-0760.**

