RCM NEWS

RCM News for September 2019

A Newsletter for Resource Conservation Managers in the Northwest

In this issue:

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JOB OPPORTUNITY

Building Efficiency Program Professional

Commerce Specialist 4 - Buildings Unit [09481]

The Washington State Department of Commerce Clean Buildings program is seeking an energy professional to develop and implement an energy performance standard for existing commercial buildings and provide incentives to encourage efficiency improvements. This position requires a combination of the highest technical energy expertise, program implementation experience, and knowledge of Washington State's clean energy initiatives. If you have the technical knowledge and communication skills to guide people through complex processes, we'd like to meet you.

Closing date is 10/8/2019 at 11:59 PM Pacific

Click here to view full job description and to apply.

ANNOUNCEMENTS

Certified Energy Manager (CEM) Training & Exam – in Portland!

Comprehensive CEM training and certification will take place in downtown Portland October 28th through November 1st. The five-day program, sponsored by the Columbia River Chapter of the Association of Energy Engineers, examines fundamentals of all key areas of energy management as well as diagnosing and analyzing energy savings for building systems. A proctored certification exam takes place the final day. Course fee includes handbook, workbook, exam fee, and AEE national and local chapter memberships. The CEM certification is a boost for any energy management or RCM position, and does not take place often in the Northwest.

State Energy Performance Standard for Commercial Buildings

The Clean Buildings bill was signed into law in Washington State in May 2019. The law, which will be administered by the Washington State Department of Commerce, aims to reduce carbon and energy use in large non-residential commercial buildings having greater than 50,000 square feet in conditioned floor area, by requiring compliance with a (yet-to-be-developed) energy performance standard. The standard will be based on ANSI/ASHRAE/IES standard 100-2018 Energy Efficiency in Existing Buildings and modified to meet specific requirements of the law. There are two phases for compliance – an early adoption voluntary efficiency incentive program for those that comply between 2021 and 2026, and a mandatory requirement beginning in 2026. Pre-rulemaking workshops will begin soon – sign up for email updates and get more information at the Clean Buildings website.

ARTICLES

Boiler Controls

A four-part article on boiler controls in the September 2019 issue of *Building Operating Management*, written by Roy Collver, discusses the integration of modern controls and old boiler technologies. With good planning, the different layers of controls can communicate with each other and a building automation system. The last part of the article discusses safety devices for boilers. Due to the nature of boilers, safety systems must be adjusted or overrode in person, not remotely.

Part 1 – Advanced Digital Technology Revolutionizes Boiler Market
Part 2 – Sensors, Better Communication Tech Mean Better Data for Boilers
Part 3 – How to Specify High-Tech Boilers to Get What You Want
Part 4 – Boiler Controls: Keep Safety Top of Mind

Networked Lighting Controls

Networked lighting controls is the focus of a three-part article in the September 2019 issue of *Building Operating Management*, written by Craig DiLouie. A study in 2017 found that networked lighting controls "produced average lighting energy savings of 47 percent". In commercial buildings. Projects that replace old lighting with LEDs is the best time to add controls, but wireless controls make it easier to install them outside of projects. Types of controls include luminaire-based, room-based, and building based. Some networks may offer other features such as demand response, quality lighting, and maintenance notifications.

Part 1 – Networked Lighting Controls Offer Benefits Beyond Energy Efficiency
Part 2 – What Should Be Included In a Networked Lighting Controls System?
Part 3 – 8 Important Benefits of Networked Lighting Controls

School Buildings

The September 2019 issue of *Facility Maintenance Decisions* includes a three-part article by Nicholas Neiley, who discusses the challenge of maintaining and improving aging school infrastructure. To begin planning, a team of stakeholders should select the desired improvements, and prioritize them. Considerations for prioritization include maintenance needs and the ability of maintenance staff, which improvements will be simpler or more cost effective, and which will be least disruptive during the school season. For every choice, the most energy-efficient improvements should at least be considered.
Part 1 – K-12 Upgrades: HVAC Challenges and Solutions
Part 2 – K-12 Upgrades: Assessing HVAC Needs, Setting Priorities
Part 3 – K-12 Upgrades That Target Lighting and Plumbing

Variable Refrigerant Flow

"Snohomish School District Saves with VRF Upgrade", a case study published by *Trade Ally Network NW* on August 8, 2019 describes how the Snohomish School District's Resource Conservation Manager worked with Snohomish PUD to replace the data center's failing cooling system with an energy efficient variable refrigerant flow (VRF). Because the new system was also tied into the existing office VRF, energy savings will be even greater than expected.

Water Conservation

A three-part article on water leaks and water reduction in the September 2019 issue of *Facility Maintenance Decisions*, written by James Piper, asserts that the cost of fixing leaks and reducing water use becomes more justifiable as water utility rates increase and some regions experience temporary water use restrictions. Leak detection, identifying flow rates, and determining water temperature, can lead to appropriate measures. Mechanical building systems such as cooling towers and boilers also use water, so measures to track their water use should also be implemented.
Part 1 – Water Watch: Strategies for Conservation
Part 2 – Water Watch: Identifying HVAC Culprits
Part 3 – Water Watch on Plumbing Systems

Upcoming Events & Training Opportunities

ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- Portfolio Manager 101 – Oct 1
- Best Practices for Electric Vehicle Charging in Commercial Buildings – Oct 8
- Portfolio Manager 201 – Oct 15
- Success Stories on Holding ENERGY STAR Competitions – Oct 17
- Minimizing Water Use in Mechanical/HVAC Systems – Oct 23
- Portfolio Manager 301 – Oct 29
- Saving Water in Restrooms with WaterSense – Sep 25
- Ask the Expert – Most Wednesday at 9:00 AM Pacific time

Click here for more webinars and information
US EPA

Building Operators Certification

BOC Level I certification is 74 hours of training and project work in building systems maintenance. Level II certification is 61 hours of training and elective coursework in equipment troubleshooting and maintenance. Classes usually meet one or two full days a month over a period of four to six months.

All dates below are for the first class.

- Washington State
  - Level I classes
    - Oct 7, 2019 through April 2020 in Tacoma
    - Spring 2020 in Spokane

  Click here for BOC Washington State information
- Oregon
  - Level I classes
    - Oct 21 2019 in Portland **REGISTRATION NOW OPEN!**

  Click here for BOC Oregon information

Building Operators Certification

Getting to Zero National Forum

- Oct 9-11 in Oakland, CA

Click here for more information

New Buildings Institute, Rocky Mountain Institute

Policy Perspectives for an Evolving Energy Efficiency Landscape

This webinar reviews some crucial energy efficiency policy history, and explores key transitions necessary for success in the future.

- Oct 10 online webinar

Click here for more information

Northwest Energy Efficiency Council

Portland General Electric Education

Classes and workshops are free to PGE business customers; others may attend for a fee.

- Diagnosing Energy Waste – Oct 15 in Wilsonville, OR

Click here for more information

Portland General Electric

Washington State Solar Summit

- Oct 18 in Bellevue, WA

Click here for more information

Solar Washington with many sponsors

Better Buildings Webinars

- Energy Efficiency and Renewable Energy in Small and Rural K-12 Schools – Oct 22 online webinar
- Smart Energy Analytics Campaign: Synthesis of Year 3 Outcomes – Oct 30 online webinar

Click here for more information

US DOE Building Buildings

Going Beyond Benchmarking Your Building

- Oct 23 online

Click here for more information

BOC

National Green Strides Tour in Washington State

This tour highlights how schools with sustainable infrastructure cuts costs and creates healthier, safer and more equitable learning environments. Attend any or all tour sites, three or four a day. See link for sites and registration information.

- Oct 28-30 Registration encouraged before October 14

Click here for more information

Office of Superintendent of Public Instruction

2019 Fall Lighting Design Lab Classes

- Networked Lighting Controls in Schools – Nov 5 in Seattle
- Networked Lighting Controls, 2-day workshop – Nov 7 & 8 in Seattle
- Light, Human Perception, and Health – Nov 14 in Seattle

Click here for more information

Lighting Design Lab

Clean & Affordable Energy Conference

- Dec 2 in Seattle

Click here for more information

Seattle City Light, Puget Sound Energy, Tacoma Power, CenturyLink, A&RSolar

EDUCATION RESOURCES

Online Energy Management and Water Conservation Technician Degrees – Lane Community College

Enroll for the Fall Term 2019 in either the Energy Management Degree or Water Conservation Technician Degree at the Northwest Water & Energy Education Institute at Lane Community College. Both award a two-year associate of applied science degree and both are **FULLY ONLINE**. Scholarships are available.

Sustainable Building Science Technology Bachelor's Degree – South Seattle College

Enrollment is open for the Fall 2019 innovative two-year degree program at South Seattle College. Classes and field work prepare you for the field of highly technical sustainable building operations and facility management. Classes are mostly online and geared toward the working adult.

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Do you have newsletters, websites and links to share? Do you have RCM questions?

RCM News is always looking for interesting information, tips and resources to share with other resource conservation managers. Our goal is to increase your success by sharing what you and your colleagues are doing – with energy efficiency measures, problem-solving, communication, data tracking, presentations, and more. In addition, WSU Energy Program can help find solutions to your RCM program's technical and programmatic questions. Email Karen to share and ask!

Washington RCM Support

The Washington State University Energy Program provides RCM support. Check out the "RCMx" website: http://www.energy.wsu.edu/PublicFacilitiesSupport/ResourceConservation/RCMx.aspx. We appreciate any feedback on this site and would also appreciate items to add to our resources, such as tools, examples of policies and job descriptions.

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Previous issues of RCM News may be viewed at http://www.energy.wsu.edu/PublicationsandTools.aspx
(click on Resource Conservation in the right hand column).
We welcome comments or ideas for articles. Please send to Karen Janowitz - janowitzk@energy.wsu.edu