

RCM News for April 2021

A Newsletter for Resource Conservation Managers in the Northwest

In this issue:

Announcements

Articles

Air Exchange and Viruses

Efficient and Healthy Lighting

HVAC Retrofits

Net Zero Energy

Upcoming Events & Training Opportunities

Resources

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ANNOUNCEMENTS

Clean Buildings Integrated Standard

In order to read the complete Washington State Clean Buildings Performance Standard, it has been necessary to refer to both the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) Standard 100 and the Washington Administrative Code (WAC) 194-50, which contains the amendments to the ASHRAE Standard. Soon, however, using the Clean Buildings Standard will be much easier, as the Washington Department of Commerce is collaborating with ASHRAE to create an integrated version. ASHRAE Standard 100 with Washington Amendments (WAC 194-50) will be available before July 1, 2021 at no cost on the [Clean Buildings webpage](#).

ASHRAE Standard 90.1-2019

A [preliminary determination](#) by the U.S. Department of Energy has found that implementing ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Efficiency Standard for Buildings Except Low-Rise Residential Buildings*, results in national energy savings compared to the 2016 edition. Savings include approximately 4.7 percent site energy, 4.3 percent energy cost, and 4.2 percent carbon emissions.

Webinar on Clean Buildings Standards – Energy Management Plans

The next webinar in the [WSU Energy Program series on the Washington State Clean Buildings Performance Standard](#) occurs May 19 on the topic of Energy Management Plans for the Clean Buildings Standard. The series concludes June 9 with Operations & Maintenance. Although geared toward RCMs

and energy managers, these webinars are open to all and at no charge. See dates and registration links under “Events & Training Opportunities” below.

Tool Lending Available

Energy Trust of Oregon is partnering with the Smart Buildings Center to make the [Tool Lending Library](#) available to commercial and industrial building owners and managers in Oregon. The program is already offered to those in Washington State. The Tool Lending Library offers 85 different types of tools to loan, including data loggers, power meters, lighting loggers, infrared cameras and more. Users can borrow tools at no-cost with shipping covered by the Energy Trust. [Tool Lending Library Helps Oregon Facilities Evaluate Building Performance](#) on the Smart Buildings Center website provides more information about this new service.

ARTICLES

Air Exchange and Viruses

A modeling study conducted by the U.S. Department of Energy’s Pacific Northwest National Laboratory (PNNL) found that in multi-room buildings, rapid air exchange may actually increase the spread of virus from the source room to other rooms. “[Faster Air Exchange in Buildings Not Always Beneficial for Coronavirus Levels](#)”, written by Tom Rickey in an April 21, 2021 PNNL News Release, reviews the effects of three factors: different filtration levels, different rates of outside air, and different rates of ventilation. Higher filtration and increased levels of outside air in the building’s air supply reduced infection risk in downstream rooms. However, rapid ventilation increased the risk.

Efficient and Healthy Lighting

Studies have shown that Americans spend up to 90% of their time indoors and that can deprive our bodies of natural light which helps support our bodies’ circadian system. The challenge for industry professionals is designing lighting that can improve health benefits for occupants and at the same time balance the energy efficiency needs of facilities. A two part article by Naomi Millan in the April 2021 issue of *Building Operating Management*, discusses how research and guidance documents are being developed to improve circadian lighting design and offers strategies for selecting healthy lighting that is also energy efficient.

Part 1 – [Supporting Human Health with Circadian Lighting Design](#)

Part 2 – [How to Choose Energy Efficiency, Healthy Lighting](#)

HVAC Retrofits

When HVAC systems age they can incur increased costs in maintenance and energy usage. Performing a full building analysis can help determine if the system should be replaced or if performing a standard or deep energy retrofit is the best choice. [Best Practices for HVAC Retrofits that Deliver](#) by Jason Carter in the April 2021 issue of *Facility Executive* discusses the difference between a standard retrofit and a deep energy retrofit, how investments in equipment such as smart controls can reduce maintenance costs, and the importance of following energy efficiency guidelines such as those put out by ASHRAE when completing a retrofit.

Net Zero Energy

More and more building owners are committing to net zero carbon emissions and even the U.S. Department of Energy has a goal of reaching net zero emissions by 2050. To aid those tasked with achieving net zero, such as facility managers and RCMs, Tim Zelozny answers some common questions about net zero in “[Six Net Zero Energy Buildings FAQs](#)”, published in the April 2021 issue of *Building Operating Management*. The FAQs include describing different terminologies of net zero, the recommended net zero goal for a building, and net zero building certifications.

UPCOMING EVENTS & TRAINING OPPORTUNITIES

Lighting Design Lab Webinars

Free online classes

- Networked Lighting Controls for Schools – May 4

[Click here for more webinars and information](#)

Lighting Design Lab

Clean Buildings Live Q&A Session

Get your questions answered about the Washington State Clean Buildings Performance Standard at this live Q&A session. Questions submitted more than 24 hours in advance have priority.

- May 4

[Click here for more information](#)

Washington State Department of Commerce

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
 - Virtual – May 4, 2021 through September 15, 2021
 - Location/delivery TBD – Fall 2021
 - Level II classes
 - Virtual – date TBD Spring 2021
 - Location/delivery TBD – Fall 2021

[Click here for BOC Washington State information](#)

- Oregon
 - Level I classes
 - Virtual – Aug 5, 2021 through March 3, 2022
 - Level II classes
 - Virtual – July 6 through Dec 7, 2021

[Click here for BOC Oregon information](#)

Building Operators Certification

ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- Portfolio Manager 101 – May 5
- Portfolio Manager 201 – May 19
- The State of Decarbonization: Findings from Smart Energy Decision’s Survey – May 20
- Portfolio Manager 301 – May 25
- Benchmarking Wastewater Treatment Plants and Drinking Water Treatment Systems – June 9
- Financing Energy Efficiency Projects: What to Know Before you Sign – June 16
- The Value of Benchmarking: a business case approach and engaging stakeholders in your ENERGY STAR process – June 17
- Streamline Portfolio Manager Data Entry with Web Services – June 23
- Ask the Expert – Most Wednesday at 9:00 AM Pacific time

[Click here for more webinars and information](#)

U.S. EPA ENERGY STAR

eProject Builder Introductory Webinars

eProject Builder is a web-based data management platform to preserve, track, and report information for energy projects.

- Webinar – May 13 & 25, June 1, 10, 22

[Click here for more information](#)

U.S. DOE, Lawrence Berkeley National Laboratory

Better Buildings, Better Plants Summit

This event provides opportunities to explore emerging technologies and share innovative strategies in energy and water efficiency. Sessions include Challenges and Solutions to Electrifying Buildings, DOE’s Waste Reduction Pilot, High-Impact Envelopes, and much more.

- May 17-20
- May 19 – virtual building tours, as part of the Summit, highlighting unique energy-saving features with a Q&A to learn about details of the buildings. [Click here for building tour information.](#)

[Click here for more information](#)

U.S. Dept of Energy Better Buildings

O&M for Clean Buildings and Beyond

A series of webinars focusing on operations & maintenance and energy management plans for the Clean Buildings Standards, as well as a brief overview of the Standards, tune-ups, and more.

[Click here for recording and slides of the March 30 and April 21 webinar.](#)

- Energy Management Plans for Clean Buildings – May 19
- Operations & Maintenance for Clean Buildings – June 9

[Click here for more information](#)

Washington State University Energy Program

Efficiency Exchange

A networking and learning conference for energy efficiency professionals from across the Northwest.

- May 25-27 – virtual

[Click here for more information](#)

NEEA, Bonneville Power Administration

Smart Building Center Technical Webinar Series

- Innovation in Building Envelope and Window Technologies – May 26

[Click here for more information](#)

Smart Buildings Center

Data Center Energy Practitioner (DCEP) Training

The DCEP training program certifies energy practitioners qualified to evaluate the energy status and efficiency opportunities in data centers. Course curriculum teaches proven best practices as well as new tools and techniques in IT equipment, air management, cooling systems, and electrical systems.

February trainings are listed below. Click on the link to see March trainings.

- Data Center: Generalist – June 1
- Data Center: HVAC Specialist – June 2-3
- Data Center: Generalist & HVAC Specialist – June 1-3
- Data Center: IT Specialist – June 4

[Click here for more information](#)

Lawrence Berkeley National Laboratory, FEMP

Clean & Affordable Energy Conference

- June 2 and June 10 – virtual

[Click here for more information](#)

NW Energy Coalition

Green Transportation Summit & Expo

The 10th annual summit: “Reflecting & Refocusing on a Resilient Future”.

- Aug 16-18, 2021 – Tacoma, WA

[Click here for more information](#)

Green Transportation

Smart Buildings Exchange Conference

Two-day conference and trade show with the latest information and technologies in the smart buildings industry, showcasing smart city and building projects and initiatives in the Pacific Northwest.

- Aug 24-25, 2021 – Seattle

[Click here for more information](#)

Smart Buildings Center, NEEC

Northwest Facilities Expo

A broad based facilities event with an emphasis on green buildings that features the latest products and services in the industry.

- September 1-2, 2021 – Portland, OR

[Click here for more information](#)

NW Facilities Expo

2021 Getting to Zero Forum 2021

Event offering discussion and education on zero energy and zero carbon buildings.

- Oct 27-29, 2021 – New York City

[Click here for more information](#)

New Buildings Institute

RESOURCES

Energy Management Information Systems

Technologies such as benchmarking and utility tracking tools, advanced energy information systems, equipment-specific fault detection systems, and building automation systems are collectively known as Energy Management Information Systems (EMIS). The U.S. Department of Energy Better Buildings Solutions Center offers support materials and a toolkit to help select an EMIS and identify and maximize energy and cost savings opportunities. Their [Energy Management Information Systems website](#) includes reports, recorded webinars, fact sheets, specifications, and more.

Clean Buildings Website

Visit the Washington State Department of Commerce [Clean Buildings website](#) for information, resources, and support to comply with the Clean Buildings Performance Standard. Information on the standards and the Early Adopter Incentive Program, as well as how to comply and resources are now available.

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

