



EFFICIENT, EFFECTIVE INDUSTRIAL & COMMERCIAL LIGHTING

May 24, 2016

7:30 am until 4:30 pm

Deadline Extended to May 20th

**Avista
Conference Room 130
1411 East Mission Ave
Spokane, WA 99202**

Registration Fee: \$139

0.7 Continuing Education Units through Washington State University may be made available for this training

Key Learning Objectives

- Best LED hibays for various applications
- Right choices to retrofit linear fluorescent fixtures
- How to specify many other interior applications
- Include task ambient lighting for industrial and offices
- Various exterior lighting applications options
- Human Centric Lighting makes lighting much more than just a commodity
- Cost effective applications for basic and advanced controls
- Learn about financial tools, which are much better than payback and its inverse, ROI

Who Should Attend

- People from industrial, warehouses, greenhouses, cold storage, agricultural processing, office buildings, K12 schools, colleges, stores, hospitals, prisons, military, etc.
- Operational staff and maintenance engineers
- Facility people, engineers & contractors
- Managers, executives & energy experts
- Consultants, efficiency experts and utility staff

Agenda

7:30 Registration (breakfast provided)

8:00 Morning Session

- Introduction
- Financial tools
- Hibays
- How to retrofit linear fluorescent fixtures
- Various other interior fixtures

11:30 Lunch (provided)

12:30 Afternoon Session

- Task ambient lighting
- Common exterior fixtures
- Garage fixtures

2:00 Break

2:15 Afternoon Session Continued

- Interior and exterior controls
- Projects
- Final Q&A

4:15 Summary and Evaluation

4:30 Adjourn

Course Description

In addition to interior and exterior lighting for industrial and warehouses, much of this class is also very relevant for office, school, retail, hospital and other commercial applications. Regarding hibays for various applications, it is not just of the question of going with LED or not, but making sure you use the right kind of LED. Various hibay applications include wet location, explosion proof lighting, food safety, gym and big box store. For retrofitting linear fluorescent fixtures, advantages and disadvantages of high performance fluorescent T8, extra long life T8, LED T8s (TLEDs), LED lightbars and LED troffer kits will be discussed. Screw-in and plug-in lamps, recessed cans and cooler lights will be covered. Task lights for industrial and offices are often under-utilized. Exterior lights include street, parking lot, flood, wallpack, bollard and garage. Photovoltaic can also be an option. Human Centric Lighting, basic and advanced controls and financial tools will also be discussed during this class.

Instructor: Stan Walerczyk is principal of Lighting Wizards. His 27 years of lighting experience includes distribution, maintenance, retrofit contracting, third party review, consulting, design, luminaire design, rebate planning, policy making and research. He wrote 100 white papers and magazine articles, including 9 on high bays, and presented 1000 seminars on various aspects of lighting. He is a Certified Lighting Energy Professional by the Association of Energy Engineers and is on the Review Board. He is an officer of the Human Centric Lighting Committee and wrote the book, *Lighting and Controls: Transitioning to the Future*, published by Association of Energy Engineers.

Hosting Sponsor



Co-Sponsoring Organizations



This training is provided by Stan Walerczyk. For more information: www.lightingwizards.com.

The Northwest Regional Industrial Training project is coordinated and funded by the Northwest Energy Efficiency Alliance (NEEA), a private non-profit organization funded by Northwest utilities, Energy Trust of Oregon and Bonneville Power Administration. NEEA and its stakeholders subsidize up to 85% of the cost to attendees, which means the cost listed on the front of this brochure is significantly less than the average price in the marketplace. NEEA works in collaboration with its stakeholders and strategic market partners to accelerate the sustained market adoption of energy-efficient products, technologies, and practices. NEEA's market transformation efforts address energy efficiency in homes, businesses, and industry.

How to Register

Registration deadline is May 20, 2016

To register online:

www.regonline.com/167neea-industrialtraining

To register by fax, email, or mail – fill out the below registration and send to:

Phone: 888-720-6823

Fax: 503-525-4800

Email: industrial-training@industrial.neea.org

NEEA Industrial Training c/o Ecova
100 SW Market St, Suite 200
Portland, OR 97201

Please make checks payable to NEEA Industrial Training c/o Ecova#2300

Questions

Visit <http://neea.org/get-involved/calendar> or contact the training center at 888.720.6823 or industrial-training@industrial.neea.org

Registration Form—Please register me for the **Efficient, Effective Industrial & Commercial Lighting** on 5/24:

First Name Last Name Title

Phone/Fax

Company Name Utility Provider

E-mail Address

Address

Please indicate special diet needs:

☐ Vegetarian
☐ Other _____

Zip City State

Participation approved by: _____
Supervisor name

Supervisor e-mail

Payment Options

Please enclose a check with this registration form and mail to the above address.

Discount Code: _____ Purchase Order: _____

Cancellation Policy: Full refund of registration fee if attendance is cancelled by **May 20th**; half refund thereafter.