

ShopTalk

Plant Operation Support

Consortium

Volume 15, Number 1

Spring 2010

Monroe Correctional Complex Saves Top Dollar in Sustainable Practices

By Phil Partington, Consortium staff

With an increasing need for resources and waste reduction, more than just futurists are discussing how to keep facilities sustainable these days. The biggest challenges include how to make waste reduction and materials reuse cost effective. The Monroe Correctional Complex (MCC) appears to be ahead of the curve in resolving

these tough issues with its innovative and collaborative food composting practices.

In 2003, the Washington State Department of Corrections' (DOC) sustainability plan stated that a primary goal was to increase recycling of all possible materials and convert waste materials to beneficial products. MCC

has responded by steadily developing and expanding its recycling and reuse programs. Since 2004, MCC has recycled over 1,900 tons of materials and saved \$331,000 in direct costs.

"It's our responsibility to make MCC as self-sustaining as possible," said Paddy Hescock, plant manager of

MCC. "We figure we're about

“Our goal is to get as close to 100% sustainable as possible.”

90% sustainable right now on solid waste materials. Our goal is to get as close to 100% as possible.”

Each day, twenty inmates separate materials for recycling and reuse. Cardboard is sent to a baler. Newspapers, office paper and mixed and shredded paper are recycled. Metals are divided into steel, copper, tin, aluminum and mixed bins, and wood is used to warm the facilities in the winter.

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Recycled roofing materials are staged, catalogued and used for future jobs.

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Washington State University
Extension Energy Program
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ShopTalk is a quarterly electronic newsletter of the Plant Operations Support (POS) Consortium, providing information focused on facility operations. We welcome feedback from readers. To provide feedback or to subscribe to the POS electronic listserv, email us at PlantOps@energy.wsu.edu.

Archived issues of *ShopTalk* are available at:

www.energy.wsu.edu/apps/PlantOperations/NewsletterArchive.aspx

Consortium contacts:

Bob MacKenzie 360-956-2055
bobmac@energy.wsu.edu

Phil Partington 360-956-2057
phil@energy.wsu.edu

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Shop Notes

By Bob MacKenzie,
Consortium Manager

In the event you hadn't heard, your Consortium's new charter was signed into law by Governor Chris Gregoire on March 12, 2010. This is a milestone for the program, validating its past success, realizing its potential, and ensuring its continuity well into the new decade. A number of members signaled their support of the bill through their elected officials, and we're deeply grateful. We certainly received wonderful support from our colleagues at the WSU Extension Energy Program. Assistant Directors Todd Currier and Sheila Riggs were standouts, and our director, Jake Fey, capped off the team success.

The enhanced charter of the Consortium – now in the Revised Code of Washington (RCW) – reads in part:

"The Washington State University extension energy program shall provide information,



Bob MacKenzie

technical assistance, and consultation on physical plant operation, maintenance, and construction issues to state and local governments, tribal governments, and nonprofit organizations through its plant operations support program..."

The new law takes effect July 1, 2010, and provides support for all the services members have enjoyed the past 14 years. In the interim, there will be no break in Consortium services and the transition should be transparent to members. Members now have, as part of their membership,

See **Notes** on page 8



Governor Chris Gregoire signs new section of RCW into law. Looking on are Consortium staff members Larry Covey, Sue Brown, Bob MacKenzie and Phil Partington; WSU Extension Energy Program Assistant Director Todd Currier; State Representative Zack Hudgins; John Lynch, State Department of General Administration.

Custodial Assessment Program Guides Members into a New Decade

By Sue Brown, Consortium staff

There are few industries as all-encompassing as the \$150-\$200 billion janitorial industry, which is apparent when considering that every building in the country requires routine cleaning. Whether that cleaning is covered by a building service contractor, or done by in-house staff, cleaning is one of the biggest costs in any maintenance and operations budget.

“The janitorial industry is changing its philosophy from ‘cleaning for appearance’ to ‘cleaning for health.’”

The janitorial industry has started to change its focus in the philosophy of cleaning, with the idea that if an organization cleans for *health* versus *appearance*, then it has an opportunity to develop a more functional, sustainable operation. However, products are often misused or wasted because of a lack of knowledge about how the product should

be utilized. Basic training for both managers and workers on the use of cleaning products is often a missing ingredient in the custodial operations recipe.

Pattie Williams has assessed numerous cleaning operations throughout her career with the Washington State Cleaning Industry Professionals Group, which she co-founded. The one commonality she has found throughout her work is that there are no standards for work processes.

“Most organizations have management and workers with good hearts,” said Pattie. “They are truly trying to do a good job, but they lack the basic knowledge of the tools needed to accomplish that.” Williams adds that this lack of knowledge “leads to wasted time and materials, as well as a compromise of the health and safety of the building occupants and workers.”

Fortunately, help is available in undertaking this challenge. The Plant Operations Support Consortium is uniquely poised to assist members with their custodial needs. The Consortium’s custodial assessment team takes a non-threatening, yet effective approach. First, the team and the member establish a list of needs. This allows the assessment report to be tailored to the member, so that it is most relevant and useful in their operations.

For example, one member



Sue Brown

may be most interested in achieving a more effective and efficient custodial operation, while another member may simply want the opinion of an outside source to help justify adding more staff in a time of tight budgets. These are just some of the issues that have been addressed by the Consortium’s custodial assessment team. ✕

Sue Brown, a Consortium staff member for the past four years, is a recent graduate of Janitor University training. Contact Sue, 360-956-2058, or e-mail browns@energy.wsu.edu, for more information about the program.

Energy/Facilities Connections Expands to Video and Webinar Trainings

By Phil Partington, Consortium staff

Skills and leadership training for facilities professionals has never been more crucial, which is why the Plant Operations Support Consortium continues to take advantage of every opportunity to link members to training opportunities around the Northwest. It is also the reason for continued enhancement of the program's 2010 *Energy/Facilities Connections Conference*.

One advantage of the Consortium's merge with the Washington State University Extension Energy Program is access to innovative approaches to training, with the technology and flexible parameters to be able to put those approaches into effect. It was this sort of creative thinking that prompted the first Energy/Facilities Connections webinar.

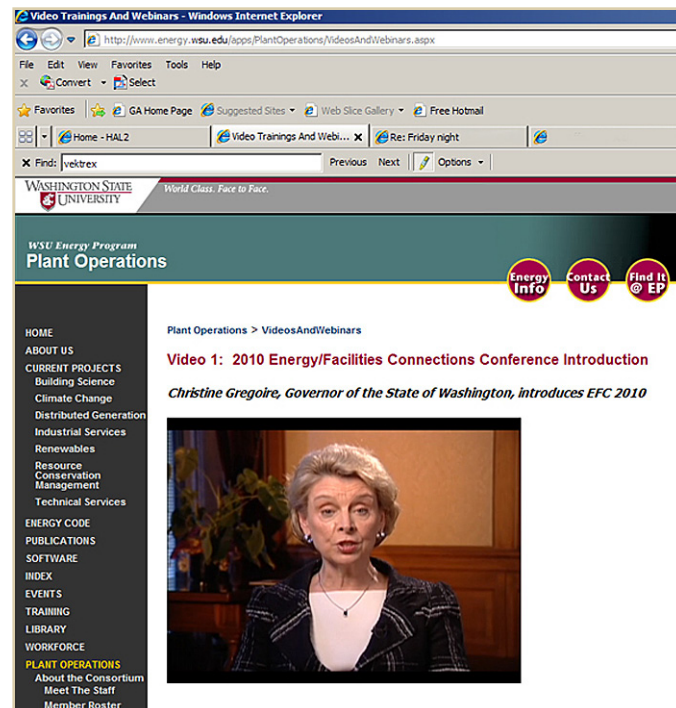
The one-hour webinar training took place April 1, 2010, and was free to participate. It featured *The Dollars and Sense of Energy Efficiency*. The following presenters volunteered their time and expertise to discuss four approaches to energy efficiency:

- Perry England, MacDonald-Miller Facilities Solutions: *"Energy Efficient Operations in a Shrinking Budget Environment"*
- Karen Messmer, WSU Extension Energy Program: *"Energy Resource Accounting"*

- Stan Price representing BetterBricks: *"Benchmarking the Energy Performance of Your Facility"*
- Todd McGuire from Glumac, and Jessica Green from Brightworks: *"Sustainable Building Upgrades: LEED for Existing Buildings"*

The webinar was recorded to video, which can be accessed on the Consortium website – www.energy.wsu.edu/apps/PlantOperations/VideosAndWebinars.aspx. While a training video can't replace face-to-face networking opportunities at a conference, it is

a viable and practical alternative for folks to receive invaluable training from their desk with a click of the mouse. Keep your eyes peeled for future training webinars and videos on a variety of topics. Send topic suggestions and feedback to your Consortium staff. ✂



Training and other types of professional videos are accessible on the Consortium website.

Ecology Building Has Sustainable and Environmental Focus

By Phil Partington, Consortium staff

Sometimes the simplest solutions aren't so simple. The Washington State Department of Ecology (DOE) building in Lacey, Washington (originally completed in 1994) was due for an upgrade. The building had water intrusion and corrosion to structural steel elements. Water broke through the stucco finish – penetrating through the wall – and the membrane behind the stucco failed.

The 315,000 square-foot office building serves as headquarters for 1,200 department personnel. The steel frame and precise concrete structure includes the office building as well as a complete cafeteria/dining area, workout facility, public library, and 500-car parking garage. An extensive atrium area through the center of

the building is used for public circulation.

Design requirements included the state-of-the-art indoor air quality HVAC system. A focus for the project was to minimize impact on the 27-acre Woodland Creek site and to preserve as many of the existing trees as possible. Site design also used pervious materials for paving, achieving 100% on-site stormwater retention.

The building is LEED Silver EB (Existing Building) certified, and the project included energy and environmental components to be consistent with the goal of sustainability. Air locks were added to doors to save energy, exterior lighting was swapped with LED lights, and the insulation of the wall was upgraded. In addition, used materials were recycled.

Tom Aura, Project Manager with Mortenson Construction, noted that “we recycled 97+ percent of demolition materials and construction waste.” The construction company also worked night shifts to avoid impacting tenants during work hours.

Mortenson coordinated its design efforts with the recommendations of the local electric



The wall construction project enabled a protective and aesthetically pleasing overhead covering to be added above the entryway.



Steve Fry points out to Consortium staffer Sue Brown the areas improved by construction at Ecology headquarters.

utility, Puget Sound Energy – ultimately resulting in over \$400,000 in grants from the utility to the Department of Ecology to assist in funding energy conservation measures.

“Ecology looks through a sustainability and environmental lens with everything we do,” said Stephen Fry, architect with the Department of Ecology.

“Thinking outside the box

See **Ecology** on page 7

Monroe

Continued from page 1

"Given the size of the facility, it makes sense for us to recycle extensively," said Sherman Smith, environmental specialist at MCC. "The cost savings from these programs are a bonus."

The facility's Twin Rivers Unit and Recycling Center started recycling food scraps in May 2009, diverting over 14 tons of compostable materials in the first month to Cedar Grove Composting (the region's largest processor of compost). In October 2009 – after saving almost \$6,000 in waste disposal costs by recycling 130 tons of food scraps – this program was expanded to all five of MCC's prison units.

"The savings go deeper than what's on the surface," said Hescock. "We save about \$3,000 per month in tipping fees, while using zero trash liners in the kitchens. By having the inmates presort food and waste, fewer utensils are accidentally thrown away, saving us big dollars on utensil orders. We canceled a



Paddy Hescock and Sherman Smith proudly pose in front of the MCC.

\$5,000 order for utensils in the first few months. On top of that, food waste isn't going into the recycle bins, which reduces the weight. We haven't had to repair a single dumpster since starting this program."

MCC has taken reuse to a new level, not stopping at just food waste. For example, inmate

shoes, clothing and bedding that are still usable are sent to the DOC Classification Center in Shelton, Washington, for reuse or recycling. Another example is their "second-hand store" where all excess or un-needed office furniture, supplies, and anything else that is usable is collected and redistributed when needed. Clothing that can't be reused is converted into cleaning rags. They also refurbish bicycles, chairs and medical equipment.

MCC has also impressed many with its green building technology, with three of DOC's 12 LEED-certified facilities being at MCC. Ninety-nine percent of all construction waste from these three buildings was recycled! The newest building (the Jimmie Evans Training Center) is one of the few LEED Gold-certified correctional buildings in the country. ✕

Contact Paddy Hescock, 360-794-2701, or e-mail plhescock@DOC1.wa.gov, for additional information about Monroe Correctional Complex's innovative approaches to sustainability.



Sherman Smith displays one of many basins used by MCC to capture recyclable commodities.

Consortium Members

K-12 Schools

Bridgeport
Camas
Centralia
Chehalis
Chilliwack, BC
Coquitlam, BC
Delta, BC
Easton
Eatonville
Enumclaw
ESD 101 (Spokane)
**ESD 114 – Olympic
(Bremerton)**
ESD 121 – Puget Sound
(Renton)
Federal Way
Highline (Burien)
Hoquiam
Ketchikan, AK
LaCrosse
Liberty (Spangle)
Lopez Island
Lyle
McCleary
Mission, BC
Moses Lake
Mukilteo
Oak Harbor

Ocosta (Westport)
Okanagan Skaha
(Penticton, BC)
Orcas Island
Orondo
Olympia
Peninsula (Gig Harbor)
Port Angeles
Port Townsend
Renton
Saanich, BC
San Juan Island
(Friday Harbor)
Selah
Shoreline
South Kitsap
(Port Orchard)
Snohomish
Sunrise Beach (Olympia)
Surrey, BC
Thorp
Wenatchee
White River (Buckley)
Wishkah Valley (Aberdeen)
Yelm

Universities/Colleges

Clark College (Vancouver)
Community Colleges of
Spokane

Grays Harbor College
(Aberdeen)
Highline Community
College (Burien)
Olympic College
(Bremerton)
Seattle University
South Puget Sound
Community College
(Olympia)
The Evergreen State
College (Olympia)
Washington State Univ.,
Extension Energy Prog.
(Olympia)

Municipalities

City of Centralia
City of Hoquiam
City of Kent
City of Longview
City of Olympia
City of Port Townsend
City of Tumwater
City of Vancouver
Clark County
Cowlitz County PUD #1
Grays Harbor Public
Development Authority
(Elma)

Jefferson County
King County Dept. of
Exec. Services
Lakehaven Utility
District (Federal Way)
Lewis County
Pierce County
Pierce County Library
System
Pierce Transit
Port of Sunnyside
Skamania County
Sound Transit
Tacoma-Pierce County
Health Dept.
Whatcom County
Yakima County Fire
District No. 5 (Zillah)

States/Tribal/Misc.

State of Alaska Dept. of
Transportation
Squaxin Island Tribe
(Shelton)
Hopelink (BC)
Tacoma Convention &
Trade Center

Washington State Agencies

Corrections
Criminal Justice Training
Commission
Ecology
General Administration
Health
**Housing Finance
Commission**
Licensing
Liquor Control Board
Military
Natural Resources
Parks & Recreation
School for the Deaf
Social & Health Services
Transportation
Veteran's Affairs
Washington State Patrol

*Our warm welcome to new
members in **bold blue** type.
We look forward to serving
your facility and operations
needs.*

Ecology

Continued from page 5

“
**Thinking
outside
the box is
something
we're used to.**

Stephen Fry, Architect,
Washington State
Department of Ecology

in this way is something we're
used to.”

“We anticipate lower heat
bills, fewer deicers in the build-
ing and parking garage, not to
mention the savings of not having
water come into the building like
it was before,” said Fry. “People
are also much happier. They can
get in and out of the parking ga-
rage without getting wet, thanks
to an added access point from the
third floor of the parking garage
to the third floor of the building.”



Tom Aura, Mortenson Construction

Contact Stephen Fry, 360-407-6018, or
Tom Aura, 425-895-9000, for informa-
tion about the Department of Ecology's
LEED-certified building.

Notes

Continued from page 2

the augmented resources of the WSU Extension Energy program, including the Energy library and a host of engineering and energy resources! We're excited about the future and hope you'll take full advantage of the support services now available. If you would like an on-site update on program services and offerings, just give us a call and we'll schedule it.

The success of our recent Consortium webinar, *"The Dollars and Sense of Energy Efficiency,"* premiered a medium that can save time and money, while providing copious amounts of technical and qualitative data. Look for its expanded use in the months ahead. We appreciated the feedback participants provided and we'll make adjustments based on your recommendations.

The **Energy/Facilities Connections Conference** takes place May 12-14, 2010, and includes top-of-the-line presenters, such as State Representative Hans Dunshee and Bob Cowan, Director of Facilities Engineering at the Fred Hutchinson Cancer Research Center in Seattle. Breakout sessions are timely and relevant to saving dollars and energy in a tough economy. For



Hans Dunshee



Bob Cowan



Stephen Ashkin

example, the *Engrossed House Bill 2836 – A \$100 Million Investment* session enables higher education and school district members to provide input to the agencies charged with developing criteria for receipt of \$100 million in grant funds. The *"Custodial Connections Training Symposium"* is actually a conference within a conference for the same low registration fee, and features Stephen Ashkin, the "Father of Green Cleaning."

We realize these are tight fiscal times so we greatly appreciate the efforts of our conference sponsors in allowing us to offer scholarships and other subsidies to our members. We're elated to be partnering with these outstanding companies and organizations as sponsors: MacDonald-Miller Facility Solutions (Platinum); Johnson

Controls (Gold); McKinstry (Gold); Quantum Engineering and Development, Inc. (Gold); Puget Sound Energy (Silver); Honeywell Building Solutions (Silver); Avista Corporation (Bronze); BetterBricks (Bronze); Northwest Energy Efficiency Council (Bronze); Tyler Rental (Bronze); and Wenatchee School District (Bronze).

Meanwhile, your Consortium staff has received nearly 350 requests for assistance from members and has sought to resolve them within short timeframes. We appreciate the wonderful assistance rendered by many members in this effort. This is what sets the Consortium apart... you all share your expertise and hearts for the benefits of others. You are the best! ✖

Bob