



SpotLight on Maintenance

OPFMA Newsletter - Connecting Knowledge with Public Facilities' Needs!
Fall 2012

Page 1 of 8

Ohio Public Facilities Maintenance Association

OPFMA is a not for profit 501(c)(3) independent educational trade organization



Inside Edition:

- ◆ OPFMA 25th Anniversary and 2012 Conference 1
- ◆ Welcome aboard - New OPFMA Members ! 2
- ◆ New BOC Grads - Dayton..... 2
- ◆ OPFMA 2012 Exhibitors 3
- ◆ Interchangeable Core Security ... 3
- ◆ Arc Flash Hazard - FAQs 4
- ◆ T12' Have Been Replaces - What's Next ? 5
- ◆ Roof Evaluation, the Right Way ... 6
- ◆ A Tale of Two Buildings..... 7
- ◆ 2012 OPFMA Board of Trustees - Composition & Contact Info..... 8
- ◆ 2012 OPFMA Board of Trustees - Meetings Schedule 8
- ◆ Publishing Submission Terms & Requirements 8

Editor's Note:

Next Edition - Dec. 2012
 Submission Deadline for articles and ads is December 01, 2012
 Follow the Publication Terms on page 8 or contact the editor.

OPFMA 25th Anniversary

By Constantin Drazanoiu, OPFMA Membership Chairman

Dear OPFMA Members,

We are celebrating the **25th Anniversary of OPFMA**, and as the Chairman of OPFMA Membership Committee, I like to express our very special appreciation of your support over the years making it possible for OPFMA to reach the 25 years milestone in business - *despite the uncertain economy when many businesses faded away* - **Thank you for support! You made it happen!**

OPFMA was founded in August 1987 to fulfill a need for on-going education for those on every level of public facilities maintenance. Our Board and Administration are continuing OPFMA's mission by organizing educative events that are beneficial to your professional development.

Only through your continued support and involvement in our educative events followed by your feedback and suggestions for better ways - OPFMA has survived some valleys and grew many times over ... even though dues are almost a decade old!

Our goal is to expand OPFMA educative events and its exposure across the state by growing closer relations via the OPFMA Chapters.

We already have (5) active OPFMA Chapters and the 6th in Ohio's NE corner that is in the formative stage having its very first meeting on Oct 18th to learn the foundation terms and code of rules that a chapter should apply.

Chapters' Chairmen are active members of OPFMA, and many are also BOC graduates!

Chapter Chairs are board members and part of the OPFMA Membership Committee - bringing in a new perspective and more detailed data on their area's specific needs.

I encourage you to get involved in chapters - meet professionals & peers from your area!

Visit: www.opfma.org - check OPFMA Chapters & chairs contact info, or with any question you might have, feel free to contact me (216) 687-5295 or the OPFMA office.

Hope to see you at the 2012 Conference Thank YOU Again! Constantin

**2012 OPFMA Annual Conference
&
Trade Show
Oct 22nd & Oct 23rd**

Attendee Registration Deadline - Oct 8th
 Visit: www.opfma.org

Special Appreciation

OPFMA 2012 Conference Sponsors!



Johnson Controls, Inc.
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Crowne Plaza Hotel - COLUMBUS NORTH -
 Need accommodations?
 Call Hotel - (614) 885-1885 • Ask about OPFMA Conference Special Rate!

Know your facts

A minister told his congregation: "Next week, I plan to preach about the 'Sin of Lying". To help you understand my coming sermon, I want you all to read Mark 17."

The following Sunday, as he prepared to deliver his sermon, the minister asked for a show of hands. He wanted to know how many had read Mark 17. Every hand went up. The minister smiled and said, "Mark has only 16 chapters. I will now proceed with my sermon on the 'Sin of Lying'."

Doctor's advice

I told the doctor I broke my leg in two places. He told me to quit going to those places

Senate rules

The reason there are two senators for each state is so that one can be the designated driver!

Police can be nice

Take your hands off the car, or I'll make your birth certificate a worthless document.

You didn't think we give pretty women tickets?! You're right, we don't. Sign here.

OPFMA New Members – Welcome Aboard!

On behalf of our long term loyal members and new ones alike, OPFMA is happily extending a

Very Warm "Welcome Aboard"!

Individual Member

Dean Sandwisch - Oregon City Schools - Director of Business Affairs
Rick Bice - Auglaize County Commissioners - Maintenance Supervisor
David Starcher - Columbiana County Career & Tech. Center - B&G Supervisor
Roger McLoney - Canal Winchester Local Schools - Facility Supervisor
Lee Clark - Bellevue City Schools - Director - Buildings and Grounds
Kelly Quinn - Strongsville City Schools - B & G Supervisor
Ned Ruffer - Bryan City Schools - Maintenance Supervisor
Eric Bassett - Hicksville Exempted Village Schools - Director of Operations
Gregg Abke - Elmwood Local Schools - Facilities & Grounds Supervisor
Roger Manecke - Elmwood Local Schools - Plant Operator
Tom Clemens - United Local Schools - Supervisor
Marcus E. O'Brian - Vandalia Butler City Schools - Project Super.

Institutional I Member

The Ohio State University at Lima - Marc Pescosolido - Maintenance Supervisor
Northridge Local Schools - Brian Lairson - Maintenance Supervisor

Corporate Associate Member

Industrial Filtration Solutions - Gerry Bohlman -
The Powell Company, Ltd - Angie Carver - Outside Sales Rep
National Institute for the Uniform Licensing of Power Engineers, Inc -
 David L. Burkhard - President

◆ BOC Level-1 Graduates – Dayton ◆

March, 2012 - September, 2012

OPFMA praises all facilities for investing in their employees' training and giving them the opportunity to obtain the BOC Building Operator Certificate!

OPFMA continues to offer assistance to the BOC graduates beyond the Graduation Day as well as offering assisting to those who need to make up classes!

**Meet the BOC Graduates:**

Edd Anderson (Ohio Department of Transportation), **Zachary Coe** (Miami Trace Local School District), **Matt Dankworth** (Fairlawn Local School), **Daniel Defibaugh** (Benjamin Logan School District), **Lonnie Falknor** (ODOT District 7), **Samuel Fannin** (New Boston Local School District), **Phil Hacker III** (Kettering City School District), **Lance Hoop** (New Lebanon Local Schools), **Jeremy Hyer** (DRC Pickaway Corr Inst), **Tami Jones** (Aileron), **Bryan King** (London Correctional Institution), **Rodney Mann** (Eaton Community Schools), **Brian Mitchell** (Marion City Schools), **Ryan Morgan** (Delaware County Developmental Disabilities), **Todd Muehlfeld** (Edon Northwest LSD), **Mark Nelson** (London Correctional Institution), **Marcus O'Brien** (Vandalia-Butler City Schools), **John Parker** (Oak Hill Union Local School), **Peter Pierron Jr.** (Trotwood-Madison City Schools), **Ted Rostorfer** (Jackson Center Local Schools), **David Saunders** (Springfield Clark CTC), **Mark Siebeneck** (Continental Local Schools), **Brad Swain** (Marion City Schools), and **Robert Walesky** (DRC Belmont Correctional Inst.)

Lighting Retrofits

1-3 YEAR TYPICAL PAYBACK
UTILITY REBATES
FINANCING AVAILABLE

"Lighting Optimizers, USA provided us a lighting retrofit project that significantly reduced our electric bills while also improving our light levels." -Phil Elliot, Director of Facilities Eaton Community Schools

Professional Lighting Audit Includes:

1. Electric bill analysis
2. Review of existing lighting system
3. Detailed room by room proposed retrofit
4. Detailed financial analysis
 - Rebate opportunities
 - Project costs
 - Project savings
 - Tax credit savings
 - Return on investment (ROI)

BEFORE

High Electric Bills
Yellow Tint
High Maintenance Costs

AFTER

Significant Electric Savings
White/Daylight Color
Rebates/Tax Incentives

Lighting Retrofits will Provide:

- Significant Energy Savings (1-3 Year Typical Payback)
- Improved Lighting Levels
- Increased Worker Productivity
- Lower Maintenance Costs

Lighting Optimizers, USA 7950 S. County Rd. 25A Tipp City, Ohio 45371 P: 937-877-1274 www.lightingoptusa.com

OPFMA 2012 Exhibitors

- Cotterman & Company Inc.
- The Gordian Group, Inc.
- TRANE
- Farnham Equipment Co.
- Allied Environmental Services, Inc.
- Noble Americas Energy Solutions
- H.E.A.T. - Total Facility Solutions
- Jacco and Associates
- Four Seasons Environmental, Inc.
- Energy Optimizers, USA
- Marshall Best Security Corp.
- Schneider Electric
- Service-Tech Corporation
- Building Control Integrators
- The Brewer-Garrett Co.
- AEP Ohio
- Lighting Optimizers, USA
- Johnson Controls Inc.
- Bruner Corporation
- StructureTec
- NIULPE
- D.L. Steiner, Inc.
- Dovetail Solar and Wind
- Stanley Security Solutions, Inc.
- CCG Energy Solutions, Inc.
- Industrial Filtration Solutions
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- Aspen Energy Corporation
- Musco Sports Lighting
- Tandus
- SchoolDude.com

Interchangeable Core Security

By Dan Barnett, Marshall Best Security Corp.

Frank E. Best, a Seattle public school English and Shop teacher, is credited with inventing the Interchangeable Core. During a school open house in 1912, several boys were seen playing with a ship model in an off-limits area. Frank served as Industrial Arts department head and was responsible for the open house. As he attended to this issue, he grew frustrated as he struggled to find a different skeleton key on his key ring for each of the glass-and-wood doors that blocked his way. By the time he got to the ship model, the boys were long gone.

The next day, he complained to the school superintendent, "Someone needs to invent a lock where one key can go through all these doors." The school superintendent replied, "That's your cue. Go to it!"

Frank took his advice to heart, and in 1925, Best Universal Lock Company was open for business. His company provided a wide selection of lock products, but the heart of each was a unique, patented keying product called an Interchangeable Core.

(Continues on pg. 4)

Interchangeable Core Security

(Continued from pg. 3)

The figure-8 Interchangeable Core, sometimes called a Cylinder, is an all-brass pin-tumbler cylinder which, unlike the other keyed cylinders in the industry, could be removed easily from the lock. The Interchangeable Core may be inserted into a full array of lock products, from Cylindrical Locks, Mortise Locks and Deadbolts, to Padlocks, Cabinet Locks, and Exit Devices.

With a special key called a Control Key, the Interchangeable Core may be removed by rotating the Control Key 18 degrees to the right. By switching out the Interchangeable Cores with a new set, control of a facility's door access can be regained in seconds and without the need for expensive professional locksmith services.

Since 1925, other companies have come out with their own versions of the Interchangeable Core, but with his brilliant engineering, Frank's design has become the industry standard, now called the Small Format Interchangeable Core. Several companies make the SFIC Core, but quality levels may vary significantly.

The second invention of Frank E. Best is Masterkeying.

Mathematical arrangement of the pin tumblers in the six or seven columns within the core allow for a hierarchical structure of access rights for each individual within a facility. This time-proven system allows for a teacher, superintendent, and staff member to each have a single key for all of those specific locks their individual responsibilities require

Combining the advantages of a Masterkeyed keying system with the flexibility inherent with Interchangeable Cores, the facility has tremendous operational advantage over traditional products.

The Best family no longer owns Frank's company. However, eight years ago, Marshall Best, grandson of Frank E. Best, reentered the lock market with Marshall Best Security Corporation, continuing the family's service-oriented tradition with his own full line of high quality, institutional grade locks, SFIC Cores and Masterkeyed security systems.

Although invented 87 years ago, Interchangeable Cores are more widely used than ever before and have proven to still be very cost-effective, convenient, and secure.

FAQs Regarding Arc Flash Hazard Analysis

By Ben Gambrell, DL Steiner

“Arc flash hazard analysis” just sounds like more red tape. Why bother with it?

Because of the danger arc flash poses. Picture this: an electrician opens an electrical panel - only to have an explosion go off in his face! The flash of light is so bright it permanently damages his eyes. Heat four times hotter than the surface of the sun incinerates his clothing and skin. Molten shrapnel rips into him with bullet speed. A blast wave throws him back like a rag doll.

Over 2,000 workers enter burn units each year due to injuries from arc flash accidents - and approximately 1 worker per day dies as a result of this tragedy. On-the-job electrical accidents are rare (only 1 in 494 lost-time accidents are electrical in nature), yet they account for 1 in 20 job-related deaths. Many of these are due to arc flash.

Most workers are unprepared for the danger they face. Because arc flash is so deadly, responsible employers and facility managers make it a priority to have arc flash hazard analysis performed on their electrical systems so these dangers can be known.

I've heard that arc flash hazard analysis costs a lot. Is

it really worth the expense?

Yes, considering that a single arc flash accident can cost a company \$1 million or more. Lost production, equipment repairs, lawsuits, skyrocketing insurance premiums, and OSHA fines add up in a hurry! As a form of risk management, arc flash hazard analysis is a relatively inexpensive way to protect against the huge liabilities that can result from an arc flash accident.

My equipment is installed according to the NEC. Doesn't that guarantee it is safe?

NEC's intent is to ensure electrical equipment is installed so that it does not present an electrical hazard *under its normal working configuration*.

Maintenance techs typically work on equipment under abnormal conditions: when the equipment is broken, damaged, or in need of maintenance. This is when an arc flash is most likely to occur!

The danger malfunctioning (and even properly installed) electrical equipment poses is why OSHA asked the National Fire Protection Association (NFPA) to produce a safety standard that addresses how to protect workers whose jobs expose them to electrical hazards.

(Continues on pg. 5)

FAQs Regarding Arc Flash Hazard Analysis

(Continued from pg. 4)

The result, *NFPA 70E Standard for Electrical Safety in the Workplace*, stipulates that arc flash hazard analysis should be performed before workers expose themselves to potential electrical hazards.

No law says you have to complete an arc flash study, does it?

No, OSHA regulations do not specifically mandate completion of arc flash hazard analysis, and NFPA 70E is a *consensus standard*, not law. But OSHA does require workplaces to be “free from recognized hazards that are likely to cause death or serious physical harm to employees.” For a definition of what makes an electrically safe workplace, it looks to NFPA 70E.

Regarding arc flash hazard analysis, NFPA 70E says, among other things, “Arc flash hazard analysis shall determine the Arc Flash Protection Boundary and the personal protective equipment that people within the Arc Flash Protection Boundary shall use” and “Equipment shall be field marked with a label containing the available incident energy or required level of PPE.”

Since an electrically safe workplace is the law, not an option, OSHA can - *and does!* - fine organizations that ignore these and other arc flash hazard-related NFPA 70E safety mandates.

So, what do you think? Should you bother with arc flash hazard analysis?

The T12's Have Been Replaced: What's Next?

Doug Trimbach, Vice President - Engineering & Project Dev., Energy Optimizers, USA

Operating budgets continue to tighten across both the private and public sectors throughout our state and, as such, concern over energy efficiency remains a high priority for facility and fiscal managers.

As you know, efforts to improve building efficiency can be costly, require capital funds that simply aren't available, and often involve simple payback periods exceeding a decade or more. Beyond the “no-cost” solutions, which you've certainly already tried, energy efficient lighting improvements continue to offer an affordable option for reducing both utility and maintenance bills, often with payback periods of less than 5 years and Returns on Investment over 30%.

As most of you are aware, a federal mandate took effect this summer bringing an end to the production of inefficient T12 fluorescent lamp and ballast technology, forcing many to implement interior lighting upgrades before enhanced financial incentives from utility providers dried up. While the “rush to upgrade” caught many off guard, these newer efficient lighting systems are delivering upwards of 60% in energy savings as well as decreases in anticipated maintenance costs. So, what are your options now that your interior lighting has been improved, and the transition from T12 to T8 or T5 lighting is complete?

Alongside the T12 Phase Out, this year has also brought significant reduction in overall costs for exterior lighting improvements, particularly with regard to Light Emitting Diode (LED) technology, offering those tasked with facility management a new, affordable avenue for continued lighting efficiency improvements. Compared with interior lighting, exterior lighting systems often operate for longer hours over the course of the calendar year and commonly utilize High Intensity Discharge (HID) lamps and ballasts

such as Metal Halide and High Pressure Sodium, adding unnecessary weight to your facility's electrical load. On average, new LED fixtures consume 40% - 60% fewer watts per fixture versus their conventional HID counterparts as well as triple (or more) times the maintenance-free life expectancy for their components. As such, exterior lighting improvements offer significant electrical and maintenance savings as well as an opportunity to enhance the safety conditions near your buildings by improving light conditions in parking areas and facility perimeters.

Recently, Tecumseh Local Schools in Southwest Ohio began replacing all of their parking lot, perimeter, and façade lighting with LED fixtures at three of their school facilities, each less than 7 years old. We anticipate annual savings of over \$35,000 from the improvement with an additional \$6,000 in annual savings associated with maintenance costs.

The upgrade will also involve integration of the new LED lighting into the District's Building Automation System (BAS), allowing for greater control over scheduling of burn times as well as the ability to create ‘zones’ of operation based on building occupancy, time of night, activity schedules, etc. Each of these controls options provides additional potential for enhanced savings and greater assurance that District facilities are safely lit for staff, students, and community members.

In developing your next energy efficiency project, be sure to take a close look at your exterior lighting and an even closer look at your lighting maintenance bills. While affordable LEDs for interior settings might still be around the corner, affordable exterior LED options are here, being installed throughout our State, and are delivering savings and performance not to be ignored.

Roof Evaluations - "The Right Way"

Nicholas J. O'Hare - Client Relations Manager - StructureTec

Buildings' roof may be your organization's most valuable and the most vulnerable asset. Being exposed to weather 24 hours a day, 365 days a year is the reason that no roof system lasts forever!

Keeping the elements outside the building and protecting all valuable inside components such as furniture, electronics, carpeting, etc., is the reason for making sure the roof is in peak condition. Neglecting your roofs can mean leaks, degradation or major damage. Without proper inspections and maintenance, roofs are at a high risk for premature failure.

There are certain indicators or conditions that should be addressed when inspecting a roof. Most roofing systems have specific guidelines for inspecting the condition of all aspects of the roof.

Being proactive in roof evaluation's process will allow the facility manager or building owner to be effective in managing the roofing assets on a prioritized basis and developing a successful long-range roofing program.

Prior starting roof evaluation review the current roofing system any existing info. Drawings and specifications should be reviewed to understand what materials were used and design details. Any warranties to be reviewed for the time remaining and various restrictions that could void the warranty.

A rating system should be established based on two main components: age of the roof vs. the expected design life, and roof's actual condition. The rating system should also give a timeframe for roof's corrective action.

The roof should be divided into manageable sections. Areas should be sectioned off by natural separations such as parapet walls, expansion joints, etc. Each individual section will be treated as a separate roof and assigned an appropriate rating upon completion of the evaluation.

The surface conditions should be reviewed first. Look for roof's condition such as coating deterioration, loss of the protective coating and stained surfaces indicating ponding water conditions. Ponding water is defined as any standing water remaining on the roof surface 48 hours after a rain. Other issues, such as shaling ballast which could damage and puncture the membrane, debris on the roof system and significant levels of dirt and fines within the stone ballast, must be recorded.

The roofing membrane is the weatherproofing layer and its condition should be examined. There are two major types: Built-up systems and Single-ply systems. Built-up systems are constructed with multiple plies of a felt material saturated with coal tar pitch or hot asphalt.

The benefit of a Built-up roof system is the redundancy, with multiple plies of weatherproofing protection. Typical conditions seen within a built-up system are blisters, which indicate that there is entrapped moisture within the roofing

system, alligating of the membrane, voids that could be a lack of bitumen within the plies, and bare or exposed felts. The single-ply roofing systems primarily consist of EPDM, TPO, and PVC membranes.

Single-ply roofing systems requires cautious on membrane deficiencies since there is only one layer of protection. Typical conditions affecting the Single-ply systems are open lap seams, thermal membrane shrinkage with EPDM membrane and plasticizer migration within the PVC/TPO systems which causes brittleness of the membrane. Fastener backout and punctures in the membrane are also typical deficiencies of PVC and TPO systems.

A strict review of all components such as perimeter edges, copings, base flashings, counter-flashings and area dividers requires a high attention-to-detail during construction and are problematic as time passes. All flashings should be inspected to ensure that they are properly sealed and are free of voids, punctures and blisters, and that there are no open laps. Sealants should be inspected for voids and deterioration at every coping joint and coping end. Termination bars and counter-flashings' conditions must be evaluated, as well as Flashing and Sealant conditions around every penetration, rooftop unit, skylight, and any other projections.

Drains, scuppers and gutters must be inspected to ensure that water has a route to exit the roof. On a low-sloped or "flat" roof system, the roof has no less that ¼ inch per foot slope to drain to allow adequate drainage. Signs of inadequate drainage are standing or ponding water on the roof surface. Staining of roof's surface indicates ponding water conditions. All drains should be inspected and cleaned of any debris, ensuring all drain strainers and bolts are present and tight.

Drains should also be inspected for adequate flashing and sealants. Scuppers and gutters should be inspected to ensure that they are free of debris, properly flashed and sealed. Adequate drainage plays a key role in roof's longevity. The transitions at the roof/wall tie-ins tend to be particularly problematic. These would include parapets, penthouse walls, and the walls at the roof line. It's easy to mistake water leakage in the roof system and make roof repairs when the water is actually entering into the wall system and eventually finding its way into the building.

The data collected through roof's evaluation should be used to drive future decisions. A three-pronged approach for corrective action can be developed.

First, roofs rated in good to excellent condition are scheduled for preventive maintenance to address all deficiencies. The **second** option - roofs rated in poor to failed condition are in need of a major capital replacement. The **third** option is to decide if any of the areas are candidates for roof restoration or deferred capital expenditures.

Roof restoration is a process that when done correctly can double the existing roof's life at about 25% of the cost of full replacement!

A Tale of Two Buildings: Which is More Energy Efficient?

By Joseph Ventresca, M.S. Energy, LEED AP '04

joe@maxgreenenergy.net



California Building



Ohio Building

Here are a few hints: Both were designed about the same time, the California building is owned by a non-profit agency and “was conceived with aspirations to be the greenest office building in the urban U.S.” It features lots of cool stuff, like wind mills and solar collectors. The Ohio building is owned by a for-profit company, and the owner admitted the building was simply designed to be a practical, traditional, cost-effective building!

A final hint - Even if you didn't know which one is in California, *which one has lots and lots of glass and just looks GREEN?*

Here's the answer: the California building, was designed to use “32% less energy than similarly-sized office buildings”. The Ohio building designed achieved a 50% Energy Cost Reduction (ECR) according to the LEED energy points' simulation criteria. It also achieved an 80% reduction in fossil fuel design CO2 global warming gas emissions to exceed the rigorous Architecture 2030 challenge by buying green power to qualify for 2 LEED Green-Power points!

The additional cost is only \$1,400/yr versus \$115,000/yr design energy bill reduction savings. Also, green power purchase off the grid is the best way to let the ‘free market’ find the best price in areas like Lake Erie wind for Ohio!

But the best part is that the energy efficiency investment had a payback of about 7 years, for an approximate internal rate of return of 14%, and the energy savings just gets bigger every year as energy prices go up.

The Ohio building demonstrated that Corporate America can achieve 50% design energy cost reduction and 80% design CO2 reduction with the additional investment cost for typically achieving only about 20 to 30% reduction; and doing it cost-effectively, with a positive cash flow from day one, from the energy savings paying the additional mortgage cost of the energy investment. And it should be easier for public facilities, since they are obliged to be good stewards of tax dollars rather than to make a profit.

To California building's credit, it has many Green features - especially gray and black water on-site water bio-treatment system designed to reduce water use 60%. However, Green innovations should not alleviate a fundamental Green responsibility to achieve optimal Energy Cost Reduction!

Both buildings are LEED Platinum, but with all the LEED points from the cost-effective energy investment, the Ohio building construction cost was about \$186/SF, while the California building cost was much more expensive, about \$525/SF. Financial sustainability is critical for Greening the world!

How did the Ohio building achieve such great energy results? Simply by optimizing the energy efficiency of every area of energy use, not by picking glitzy technologies at the start!

The following 9-Step Energy Optimization Procedure that is applicable to all new construction and renovations:

1. Set a very aggressive goal that you probably won't achieve, like 80% energy cost reduction.
2. Evaluate *all* energy efficiency options *including* longer paybacks of 10 to 20 years that will improve the building' efficiency, which will greatly reduce the size & cost of the HVAC system & produce *synergistic effects* that will yield a good average overall payback.
3. Do financial analysis to assure the Energy Investment is cost effective, with the additional mortgage cost paid by energy savings from year one. Even for a worst case 14 yr. payback, the cash-flow is net positive from the 1st yr. at *today's low interest rates*.
4. Do many *iterative* energy simulations beginning at conceptual design, while holding the HVAC system constant at the base code system to control for ‘order of implementation effect’ that makes savings from the 1st ones implemented look larger.
5. Simulate and evaluate *every* energy use area: Envelope insulation & infiltration, Lighting, Day-lighting, Heating, Cooling, Ventilation, Pumps, Fans, Electrical ‘plug’ loads, Site Energy, Miscellaneous Energy, and Operations & Maintenance.
6. Bring in energy experts to get up-to-the-minute information & simulations for all options.
7. Select the optimal package from the above simulations, and then simulate more efficient HVAC system options.
8. Keep doing iterative simulations and analysis for the *Energy Optimization procedure to define the technologies*.
9. Achieve cost-effective responsible energy use!

2012 Board Meetings

Schedule:

Mar 7th 2012June 6th 2012Sep 19th 2012Dec 5th 2012

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Phone – Conference**3rd Wednesday on:**

April

May

July

August

November

•

2012 Conference &**Trade Show****Oct 22nd & Oct 23rd****Conference Committee****Sunday, Oct 21st***For the newsletter archive
visit our website!***www.opfma.org****2012 OPFMA Board of Trustees & Contact Information****Executive Committee**

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Note from the Editor:

Dear reader, OPFMA publishes the "SpotLight on Maintenance" for your benefit - YOUR feedback is of a paramount importance!

Suggestions – Sharing Experiences – and Constructive Criticism! Your experience could be valuable help for another reader!

Let your voice be heard - Just drop a note at: editor@opfma.org or visit www.opfma.org and click on "Contact Us"

I would happily bring your ideas and comments in The SpotLight!

Thank you,
Alex

Publication Submission & Terms Info

"Spotlight on Maintenance" is the official publication of the **Ohio Public Facilities Maintenance Association**, a 501(c) (3) not for profit organization for educational and professional development of public facilities maintenance employees.

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A special edition would be added as events dictate.

All materials published are copyrighted. SpotLight on Maintenance Editor/Publisher is Alexandra Schneider.

Deadline for articles and photos' submission is the 1st day of the month - March, June, September and December.

All documents must be submitted in Word format and sent as an e-mail attachment.

All photos and ads must be in JPEG format and sent as an e-mail attachment.

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