The 2016 NEHES Fall Conference lands in one of the most scenic New England settings in Whitefield, New Hampshire on September 25 to 28.

As usual, the conference will bring learning opportunities and networking time with fellow NEHES members. The popular technical exhibit will be bustling with activity as you'll get to know more about products and services of importance to the healthcare engineering profession.

The NEHES Annual Awards ceremony will be incorporated as part of the opening day events. Special awards will take place as part of the morning session.

The NEHES Annual Meeting will highlight the achievements in the past year as well as look to future goals for the Society.

The NEHES Annual Gala takes place on Monday September 26 from 6 to 10 PM at the Bellevue Barn at Carlisle Place in Jefferson, New Hampshire. All registered attendees, including booth holders, are entitled to attend.

A shuttle from the Mountain View Grand and the Hampton Inn in Littleton will be available.

The Technical Exhibits—Meet dozens of individual business partners who provide goods and services to hospital engineers.

The Guest Program—Grab your camera and get out in the White Mountains. Activities include riding the Cog Railway to the summit of Mount Washington, browsing the shops in Downtown Littleton (see the world’s longest candy counter!), and taking advantage of the spa and pleasant diversions at Mountain View Grand.

Keynote & Opening Day Presentations:

From Unraveled to Creating a Sustainable Health System by Dr. James Weinstein Orthopaedic Spine Surgeon, CEO and President, Dartmouth Hitchcock, co-author of the recent book, Unraveled: Prescriptions to Repair a Broken Health Care System

Can a health system succeed when its goal is to keep people healthy and out of the hospital? Can we treat people in new ways and in new, non-hospital settings, while maintaining financial health, and a healthy population?

In his keynote address, he will discuss this personal and professional journey and the path to achieving the health and health care we all want for ourselves, our families, and the patients we serve.

Creating a Culture of Civility in the Workplace by Andrea McGill-O'Rourke, Ph.D., Assistant Professor

Creating a culture of civility and respect among employees is critical for a successful healthcare organization. Incivility can have negative impacts in the workplace-costing time and money. This session will examine the high cost of incivility and equip your toolbox with a variety of management strategies to tackle this increasingly troublesome topic.

Who Should Attend?

We find that all individuals working in the healthcare facility management profession can benefit from a NEHES Conference. Attendees include:

- Facility Managers and Engineers
- Plant Operations Managers
- Vice Presidents of Support Services
- Planning, Design and Construction Professionals
- Healthcare Safety and Security Officers and Managers
- Maintenance Managers
- Healthcare Contractors
- Hospital Security and Emergency Management Professionals

Why Should You Attend

Here’s a reasonably priced program for training and education you need to do your job.

- Valuable networking opportunities to share problems, challenges and solutions with peers in the industry.
- Anticipate changes and revisions to existing codes and standards. Know how to respond to these changes.
- Evaluate the latest products and services at the vendor show. Past attendees have made inroads with vendors and suppliers that resulted in top notch solutions with increased cost savings.

The NEHES Golf Challenge - The historic Waumbek Country Club in Jefferson offers the most picturesque views of any golf course in New England.

The tournament will begin with a shotgun start at 11:30 AM on Sunday, 25. The format for play will be a Scramble that allows players to experience the challenge of the course while still permitting play to move along quickly.

The NEHES Annual Awards ceremony will be incorporated as part of the opening day events. Special awards will take place as part of the morning session.

The Guest Program—Grab your camera and get out in the White Mountains. Activities include riding the Cog Railway to the summit of Mount Washington, browsing the shops in Downtown Littleton (see the world’s longest candy counter!), and taking advantage of the spa and pleasant diversions at Mountain View Grand.

Keynote & Opening Day Presentations:

From Unraveled to Creating a Sustainable Health System by Dr. James Weinstein Orthopaedic Spine Surgeon, CEO and President, Dartmouth Hitchcock, co-author of the recent book, Unraveled: Prescriptions to Repair a Broken Health Care System

Can a health system succeed when its goal is to keep people healthy and out of the hospital? Can we treat people in new ways and in new, non-hospital settings, while maintaining financial health, and a healthy population?

In his keynote address, he will discuss this personal and professional journey and the path to achieving the health and health care we all want for ourselves, our families, and the patients we serve.

Creating a Culture of Civility in the Workplace by Andrea McGill-O’Rourke, Ph.D., Assistant Professor

Creating a culture of civility and respect among employees is critical for a successful healthcare organization. Incivility can have negative impacts in the workplace-costing time and money. This session will examine the high cost of incivility and equip your toolbox with a variety of management strategies to tackle this increasingly troublesome topic.

Who Should Attend?

We find that all individuals working in the healthcare facility management profession can benefit from a NEHES Conference. Attendees include:

- Facility Managers and Engineers
- Plant Operations Managers
- Vice Presidents of Support Services
- Planning, Design and Construction Professionals
- Healthcare Safety and Security Officers and Managers
- Maintenance Managers
- Healthcare Contractors
- Hospital Security and Emergency Management Professionals

Why Should You Attend

Here’s a reasonably priced program for training and education you need to do your job.

- Valuable networking opportunities to share problems, challenges and solutions with peers in the industry.
- Anticipate changes and revisions to existing codes and standards. Know how to respond to these changes.
- Evaluate the latest products and services at the vendor show. Past attendees have made inroads with vendors and suppliers that resulted in top notch solutions with increased cost savings.

The NEHES Golf Challenge - The historic Waumbek Country Club in Jefferson offers the most picturesque views of any golf course in New England.

The tournament will begin with a shotgun start at 11:30 AM on Sunday, 25. The format for play will be a Scramble that allows players to experience the challenge of the course while still permitting play to move along quickly.

The NEHES Annual Awards ceremony will be incorporated as part of the opening day events. Special awards will take place as part of the morning session.

The NEHES Annual Meeting will highlight the achievements in the past year as well as look to future goals for the Society.

The NEHES Annual Gala takes place on Monday September 26 from 6 to 10 PM at the Bellevue Barn at Carlisle Place in Jefferson, New Hampshire. All registered attendees, including booth holders, are entitled to attend.

A shuttle from the Mountain View Grand and the Hampton Inn in Littleton will be available.

The Technical Exhibits—Meet dozens of individual business partners who provide goods and services to hospital engineers.

The Guest Program—Grab your camera and get out in the White Mountains. Activities include riding the Cog Railway to the summit of Mount Washington, browsing the shops in Downtown Littleton (see the world’s longest candy counter!), and taking advantage of the spa and pleasant diversions at Mountain View Grand.

Keynote & Opening Day Presentations:

From Unraveled to Creating a Sustainable Health System by Dr. James Weinstein Orthopaedic Spine Surgeon, CEO and President, Dartmouth Hitchcock, co-author of the recent book, Unraveled: Prescriptions to Repair a Broken Health Care System

Can a health system succeed when its goal is to keep people healthy and out of the hospital? Can we treat people in new ways and in new, non-hospital settings, while maintaining financial health, and a healthy population?

In his keynote address, he will discuss this personal and professional journey and the path to achieving the health and health care we all want for ourselves, our families, and the patients we serve.

Creating a Culture of Civility in the Workplace by Andrea McGill-O’Rourke, Ph.D., Assistant Professor

Creating a culture of civility and respect among employees is critical for a successful healthcare organization. Incivility can have negative impacts in the workplace-costing time and money. This session will examine the high cost of incivility and equip your toolbox with a variety of management strategies to tackle this increasingly troublesome topic.

Who Should Attend?

We find that all individuals working in the healthcare facility management profession can benefit from a NEHES Conference. Attendees include:

- Facility Managers and Engineers
- Plant Operations Managers
- Vice Presidents of Support Services
- Planning, Design and Construction Professionals
- Healthcare Safety and Security Officers and Managers
- Maintenance Managers
- Healthcare Contractors
- Hospital Security and Emergency Management Professionals

Why Should You Attend

Here’s a reasonably priced program for training and education you need to do your job.

- Valuable networking opportunities to share problems, challenges and solutions with peers in the industry.
- Anticipate changes and revisions to existing codes and standards. Know how to respond to these changes.
- Evaluate the latest products and services at the vendor show. Past attendees have made inroads with vendors and suppliers that resulted in top notch solutions with increased cost savings.
I hope you are all having a good summer and participating in all your favorite warm weather activities.

Many of you took time out of your busy schedules to take advantage of the eighth annual Twin State Seminar held on August 5th at Dartmouth-Hitchcock Medical Center. Those in attendance were treated to a great group of speakers covering a wide variety of topics. The presenters at the seminar shared their knowledge and provided valuable information to a record number of attendees. Many thanks to those that participated to make the day such a success.

Another group that is working hard is the organizing committee for the Fall Engineering Week—Oct. 23-29, 2016

President’s Message—Jona Roberts

Jona Roberts, CHFM, SASHE
Engineering Manager
Dartmouth-Hitchcock Medical Center - Lebanon, NH
2016 NEHES President

As a reminder, here are some of the opportunities Active members can still take advantage of this year by being a member of NEHES:

- CHFM exam fee waivers,
- scholarships,
- internships,
- state chapter seminars,
- the Twin State Seminar,
- the Fall Conference,
- and for the first time CHC exam fee waivers. In addition, other programs are often offered depending on the needs of our membership.

You, as a member of NEHES, can help shape the future of the Society by getting involved. The easiest way is to reach out to any board member to let them know what would add value to your membership. Suggestions and recommendations are brought forward to the board’s annual planning retreat. The goal of the retreat is to set the following year’s programmatic elements and the budget.

If you’d like to be even more involved there are many opportunities available that can match your availability. If you are interested in learning more about the NEHES Board of Directors, and how you can get involved, please let us know.

All of us on the NEHES Board of Directors are here to help. Please let us know how we can. Our areas of service and contact information is available at: http://nehes.org/about/board-of-directors

Please take a moment to check out the website updates at NEHES.org and let us know what you think. And, while you’re there, take a minute to register for the 2016 Fall Conference.

I can be reached at jona@nehes.org.


This year’s theme for National Healthcare Facilities and Engineering Week is “Facilities and Engineering—Essential Members of the Healthcare Team.” The dates are October 23—29, 2016

You and your staff are important members of the healthcare team – your department keeps your facility operational, safe, and efficient. Because of all you do, there is power; running water; and a clean, comfortable, and safe healing environment for all who walk through your doors.

What you may think is ordinary is truly extraordinary. Without you and your staff’s efforts, the doors of your facility would not be open.

Take advantage of the time to recognize your profession in meaningful ways. Consider some of the following:

- Check out the ASHE website to take advantage of their promotional materials. Each year, ASHE offers sample press releases, recognition ideas, gift ideas for recognition, and information about the facilities profession. ASHE will be a key resource in suggesting ways that you can promote National Healthcare Facilities and Engineering Week in your facility and in the local community.

- Hold an open house in your areas. Invite staff for a tour of your department. Have members of your team create an album of pictures that show the work that they are involved in on a daily basis. Food and beverages are always guaranteed to bring guests to an open house.

- Include information in your hospital newsletter and on the website about the celebration. Talk to your public relations department to see what they can do.

- Work with your state chapters to have National Health Care Facilities & Engineering Week proclaimed by the Governor and Legislature. On the local level, have a proclamation named by your town or city.

- Hang posters to bring attention to your “Essential Members of the Healthcare Team.” You can even purchase a banner to proudly display in your areas.

***Promotional products can be found at jimcolemanstore.com
While you’ve been enjoying summer, the NEHES Fall Conference Committee hosted by the NH Chapter and led by Pete Girard, Greg D’Heilly, Alison Brisson, and Jay Hall, have been hard at work planning a fantastic 4 days at the Mountain View Grand in Whitefield, NH. Educational, networking, and social events pack the schedule, providing you plenty of opportunity to reconnect with friends and clients alike. Now is the time to start talking this up with your teams, building excitement within your firms, and getting your booths ready!

If you’ve yet to sign up for a sponsorship or you missed out on a booth, there are still opportunities to get your name in front of clients.

Supporting Member Update—Anne Kroger

Anne Crowe Kroger, FSMPS, MBA, Vice President/Business Development Leader at Cannon-Design and Supporting Member Liaison

While you’ve been enjoying summer, the NEHES Fall Conference Committee hosted by the NH Chapter and led by Pete Girard, Greg D’Heilly, Alison Brisson and Jay Hall, have been hard at work planning a fantastic 4 days at the Mountain View Grand in Whitefield, NH. Educational, networking, and social events pack the schedule, providing you plenty of opportunity to reconnect with friends and clients alike. Now is the time to start talking this up with your teams, building excitement within your firms, and getting your booths ready!

If you’ve yet to sign up for a sponsorship or you missed out on a booth, there are still opportunities to get your name in front of clients.

State Chapter Officers—Promoting the Healthcare Engineering Profession

Connecticut
President and Chapter Rep: Paul Roth, CHFM, Facilities Operations Manager, Lawrence and Memorial Hospital, New London proth@lmh.org
Vice-President: Al Wasko, Associate Director, Plan Maintenance, Yale-New Haven Hospital, New Haven alwasko@ynhh.org
Secretary: Ron Hussey, Manager of Facilities and Engineering, Johnson Memorial Hospital, Stafford Springs ronald.hussey@jimmc.com

Maine
President: Chris Henderson, Facilities Director Acadia Hospital, Bangor chenderson@emh.org
Vice-President: Brian Campbell, Maintenance & Construction Manager CMMC Lewiston campbri@cmhc.org
Secretary/Treasurer: Cole Teague, CHC, CHFM, Chief of Facilities Management Franklin Memorial, Farmington cteague@fcnm.org
Chapter Representative: Dan Bickford, Director of Engineering Central Maine Medical Center, Lewiston bickfoda@cmhc.org

Massachusetts
President & State Chapter Rep: Corey McNulty, CHFM Regional Director of Plant Operations, Vibra Healthcare, New Bedford CMcnulty@newbedfordrehab.com
Secretary: Dave Fowler, Senior Director- Support Services, Anna Jacques Hospital, Newburyport DFowler@aih.org
Treasurer: Dann Boyer, Sturdy Memorial Hospital, Attleboro DBoyer@sturdymemorial.org

New Hampshire
President: Greg D’Heilly, Maintenance Operations Supervisor, Dartmouth Hitchcock Manchester, Gregory.E.DHeilly@Hitchcock.org
Vice President: Paul Colby, Carpenter, Concord Hospital, pcolby@crhc.org
Secretary/Treasurer: Tim Bishop, Director of Facilities, Riverwoods at Exeter tbishop@riverwoodsrc.org
NEHES Rep: Peter Girard, Facilities Manager, Dartmouth-Hitchcock, Concord Peter.R.R.Girard@hitchcock.org

Rhode Island
President: Charles Brown, Facilities Operations Manager, South County Hospital, cbrown@schospital.com
Vice-President: Pamela Mace, Director Facilities Services, Newport Hospital, pmace@lifespan.org
Treasurer: John R. Zoglio, MBA, CHFM, CHSP, Manager of Safety and Emergency Preparedness, Kent Hospital—john_zoglio@mhri.org

State Chapter Representative: James Carroll, Director of Facilities, Butler Hospital jcarroll@butler.org

Vermont
President: Erik Lahr, Supervisor of Facilities Management and Environmental Services, UVMC-Fanny Allen, Erik.Lahr@uvmhealth.org
Vice-President: Joe Voci, Supervisor of General Maintenance, UVMC, Joseph.voci@UVMhealth.org
Secretary/Treasurer: Robert Prohaska, Director of Plant Services, Brattleboro Memorial Hospital, rprohaska@bmhvt.org

Monday night is the Supporting Member Gala, and you don’t want to miss this social of the year! Held at the Bellevue Barn at Carlisle Place in Jefferson with dining and dancing. It promises to be an all-around great time.

Did you know that several of your fellow Supporting Members have been volunteering with NEHES and making a difference? Here’s what they are doing:

- Serving on the Sustainability Committee
- Generating sponsorships for the Fall Conference
- Serving on the Exhibit Hall Team
- Planning the gala and ensuring it’s a fun-filled night
- Reviewing Program Abstracts
- Writing newsletter articles

Want to get involved? Reach out! There’s plenty to do. I can be reached at AKroger@CANNONDESIGN.com

While you’ve been enjoying summer, the NEHES Fall Conference Committee hosted by the NH Chapter and led by Pete Girard, Greg D’Heilly, Alison Brisson and Jay Hall, have been hard at work planning a fantastic 4 days at the Mountain View Grand in Whitefield, NH. Educational, networking, and social events pack the schedule, providing you plenty of opportunity to reconnect with friends and clients alike. Now is the time to start talking this up with your teams, building excitement within your firms, and getting your booths ready!

If you’ve yet to sign up for a sponsorship or you missed out on a booth, there are still opportunities to get your name in front of clients.

Choosing the right location is crucial for any business event. Whether it’s a conference, seminar, or workshop, the venue plays a significant role in the success of the event. Here are some key factors to consider when choosing the right location:

- **Accessibility:** Consider the location’s proximity to major roads, airports, and public transportation sources. This will ensure that attendees can easily reach the venue and minimize travel time.

- **Facilities and Amenities:** Check the venue’s facilities to ensure they meet the needs of your event. This includes accommodations, audiovisual equipment, and catering options.

- **Space and Layout:** Choose a venue that offers adequate space and layout for your specific needs. Consider the number of attendees, the structure of the event, and any special requirements.

- **Technology Integration:** Evaluate the venue’s technology integration capabilities. Access to high-speed internet, wireless connectivity, and audiovisual equipment is essential for a smooth event.

- **Security:** Ensure the venue has adequate security measures in place to protect participants and equipment.

- **Parking:** Sufficient and convenient parking is a must for a successful event. Consider the venue’s proximity to parking facilities or a nearby garage.

- **Cost:** Evaluate the total cost of the venue, including any additional fees such as taxes, service charges, and setup costs. Ensure the venue fits within your budget.

These considerations will help you make an informed decision when choosing a venue for your next business event. Remember, the right location can make all the difference in the success and impact of your event.
The long-term performance of any hospital/healthcare exterior building enclosure assembly is directly related to the level of planning implemented during the initial phases of the design process; and requires the combined efforts of the owner, Building Enclosure Commissioning Provider (BECxP), design team, and contractors.

Commissioning consultation services typically begin during the creation of the Hospital’s Project Requirement document. The services continue through peer reviews of the building enclosure specifications and drawings at each design stage, focusing on the enclosure’s ability to resist moisture intrusion and air infiltration, and to maintain a continuous thermal enclosure. Extending into the construction process, the BECxP oversees peer reviews of the shop drawings and contractor coordination meetings, and performs periodic site observations and mock ups/in-field testing to confirm the performance capability of enclosure components.

Building enclosure commissioning helps avoid common issues in building construction, such as water intrusion, which frequently results in indoor air quality issues, mold growth, air infiltration, and associated energy loss. There are countless examples of enclosure failures that cost owners, insurance companies, and contractors millions of dollars to remedy the resulting mold and moisture problems. The BECxP can identify design and construction issues at a significant discount as the costs for building enclosure commissioning services are generally but a small fraction of the potential repair costs.

Some of the key causes of enclosure failures include:
- Reliance on a single rainwater barrier
- New untested building materials
- Complex geometries
- Repetitiveness of problem details
- Lack of technical understanding of moisture intrusion mechanisms
- Lack of understanding of inter-relationship with HVAC systems
- Lack of modeling/review/testing/startup
- Lack of defined expectation of the building’s performance with regard to the selection of materials and details

There is a push for tighter buildings with the introduction of air barriers into the building codes, as well as the introduction of sustainability guidelines, such as the LEED rating system. The inclusion of air barriers promised energy savings and higher performance buildings. Instead, the new science wasn’t understood by the designers or installers and small defects in the exterior enclosure led to significant moisture, mold, and indoor air quality issues. Air leakage and poor connectivity of enclosure assemblies created a situation where buildings were not meeting the promised performances.

The Evolution of Building Enclosure Commissioning

With this history of moisture intrusion in buildings, commissioning of the building enclosure became more important in order to address infiltration issues prior to the completion of the project. Building enclosure consultants turned to HVAC commissioning, which was being performed since the previous decade. As a process, building enclosure commissioning follows a similar pattern as HVAC commissioning: identification of the project performance objectives, design-phase peer reviews, and

Importance of Design Phase Review
construction-phase inspections and testing. However, for the building enclosure, there is typically nothing comparable to the test and balance, and other functional test procedures that are routinely specified in contract documents for HVAC systems. Also, HVAC systems can be tweaked and fine-tuned once the building is complete but waiting until construction is complete to test the building enclosure is too late since the façade components are already in place.

ASHRAE Guideline 1-1996 *The HVAC Commissioning Process* had been in place for 20 years to help engineers and owners properly design, construct, and test HVAC systems in buildings. In 2006, the National Institute of Building Sciences (NIBS) issued a Building Enclosure Commissioning Design Guide that described the specific application of the commissioning process, laid out in ASHRAE Guideline 0-2005 as it pertained to the building enclosure. This guideline was updated in 2012. At this time, the American Society for Testing and Materials (ASTM) released ASTM E2813-2012: Standard Practice for Building Enclosure Commissioning. This standard defined the practice of building enclosure commissioning and identified the minimum requirements for two specific levels of commissioning: “Fundamental” and “Enhanced.”

Following the publication of ASTM E2813 in 2012, ASTM International and NIBS entered into a memorandum of agreement. Part of the agreement required that the NIBS Guideline be developed and published as an ASTM standard guide. This Guide was published as ASTM E2947: Standard Guide for Building Enclosure Commissioning in 2014.

### Implementing Enclosure Commissioning

The building enclosure commissioning process should begin when the hospital is first considering building a new facility or renovating an existing facility. The earlier the commissioning process begins, the easier it is to incorporate the commissioning comments into the construction documents. The following commissioning process is recommended for each building enclosure system (waterproofing, air barriers, roofing, opaque walls, fenestrations).

For more info, [galeassociates.com](http://galeassociates.com)

<table>
<thead>
<tr>
<th>Pre-Design Phase</th>
<th>Develop and Define Owner’s Project Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Review of the Design Team’s Basis of Design</td>
</tr>
<tr>
<td></td>
<td>Define Responsibilities</td>
</tr>
<tr>
<td></td>
<td>Define Scope and Budget for Commissioning Process</td>
</tr>
<tr>
<td></td>
<td>Create Commissioning Plan</td>
</tr>
<tr>
<td>Design Phase</td>
<td>Commissioning Workshop</td>
</tr>
<tr>
<td></td>
<td>Technical Peer Reviews</td>
</tr>
<tr>
<td></td>
<td>Constructability Reviews</td>
</tr>
<tr>
<td></td>
<td>Commissioning Specifications</td>
</tr>
<tr>
<td></td>
<td>Update Commissioning Plan</td>
</tr>
<tr>
<td>Pre-Construction Phase</td>
<td>Pre-bid Conference</td>
</tr>
<tr>
<td></td>
<td>Evaluation of Bidder Proposals, Requests, and Bids</td>
</tr>
<tr>
<td>Construction Phase</td>
<td>Commissioning Workshop</td>
</tr>
<tr>
<td></td>
<td>Peer Review of Submittals, Substitutions, and Shop Drawings</td>
</tr>
<tr>
<td></td>
<td>Onsite Inspections</td>
</tr>
<tr>
<td></td>
<td>Performance Testing</td>
</tr>
<tr>
<td>Post-Construction Phase</td>
<td>Review of Close-Out Documents and As-Builts</td>
</tr>
<tr>
<td></td>
<td>Facility Training</td>
</tr>
<tr>
<td></td>
<td>Occupancy and Operation Review Meeting</td>
</tr>
<tr>
<td></td>
<td>Warranty Period Walk-Through</td>
</tr>
<tr>
<td></td>
<td>Final Commissioning Report</td>
</tr>
</tbody>
</table>
6 Evidence-Based Design Strategies For Med/Surg Rooms

From Healthcare Design Magazine by Debra Levin, President & CEO, The Center for Health Design

The patient room is one of the better-researched areas of an acute care facility, and because of that it’s one of the easiest places to incorporate thoughtful evidence-based design (EBD) features.

Through grants from the ASID Foundation and the Angelo Donghia Foundation, The Center for Health Design looked at patient rooms in medical/surgical, ICU, and maternity care spaces and pulled together the known EDB features that should be incorporated in their designs.

Overall, we found 19 well-documented features worth considering for incorporation into med/surg rooms. The top six are as follows:

—To help facilitate clear and effective communication in the patient room and nurses’ stations, provide easily accessible communication systems (e.g. telephone, intercom). Provide visible and legible communication systems, such as patient room boards, to provide care team information to patients and families as well as any special instructions that might be needed.

Where possible, use a noiseless paging/visual alarm and display system to minimize noise sources. This will help to alleviate noise near the patient room, which can lead to a reduction in patient stress and anxiety and improve patient comfort. If possible, provide for telemedicine connections, as well.

—Provide for night-lighting between the bed and bathroom to improve patient mobility and reduce the risk of falls, and introduce adequate task lighting in the medication safety zone and at the bedside to prevent medication errors.

Also provide appropriate lighting for patient examination and for checking on equipment (IV pump, etc.) during the night. Think about the best lighting for the family zone areas, too, to allow family members to make use of the space without disturbing the patient.

—Improve patient mobility and reduce the risk of falls by providing a clear path for patient handling/movement equipment from the patient bed to the bathroom. Provide assist aids/lifts with ambulation capacity. Provide a percentage of patient handling/movement devices specifically designed for bariatric patients, too.

Where possible, provide ceiling lifts for patient handling/movement to reduce the potential for injury to staff during patient transfers. Provide portable floor lifts when ceiling lifts aren’t possible.

—When thinking about walls, use smooth surfaces with minimum perforations and crevices to reduce the risk of contamination. Reduce the use of ridges or reveals that could serve as dust collectors. Treat joints and seams for easy cleaning and maintenance and use wipeable/washable materials for high-touch surfaces.

For efficient delivery of care, mirror medical gases and power outlets on either side of the bed. Be sure that nurse controls for lighting and temperature are convenient. Verify the locations and height of equipment, connections, and outlets with various caregivers for ease of access and use.

Use sound-absorbing finish materials to reduce overall noise so alarm levels can be reduced. Provide patient access to electronic media for education and entertainment to improve patient engagement.

—Provide built-in sinks with seamless counter surfaces for reduced risk of contamination. Locate faucets off-center (from the side of the drain) to prevent splash and deep sink basins to prevent splashing from the drain to other surfaces. Locate the sink so that it’s easily visible to the staff as they enter the room to increase hand-washing compliance.

Create visual cues directing attention to the sink or alcohol gel dispenser. Use sensor technology for faucets, towel dispensers, gel dispensers, soap dispensers, etc.

Info: healthcaredesignmagazine.com

10 Years of Platinum Achievement

NEHES has earned the Platinum Level of Affiliation, the highest designation that can be attained by an ASHE Chapter, for the tenth year in a row. The award was presented at the recent ASHE Annual Conference this summer in Denver, Colorado.

This achievement really demonstrates the NEHES Board of Directors’ hard work and commitment to our members, especially in the areas of education, advocacy, and communication,” said Jona Roberts, NEHES President.

“Our chapter continues to be recognized for its leadership as one of the strongest in the country.”

Platinum Level is given to those chapters that take leadership in membership initiatives, ASHE programs, chapter leadership forums, education programming, chapter communication, Regional Leader nominations, website development, and an annual report of chapter goals.

In 2016, ASHE is introducing a new option for chapters that participate in the Chapter Levels of Affiliation Award program. Elite status will be granted to chapters that are actively involved with Energy to Care, ASHE’s energy benchmarking and awards program that encourages facilities to reduce operational costs through energy savings.

For info: ashe.org
Transit-oriented development models are common for commercial projects where transit and other public improvements enable the success of a commercial venture. Dense urban institutional districts – particularly those with not-for-profit Health Sciences institutions commonly wrestle with growth and renewal needs as well. While this growth many times stresses the public realm, the success of the development is enabled in significant part by improvements to the public realm.

One key public realm stress point is circulation and access. In many health sciences districts, the institutions are among the cities’ largest employers and the daily pedestrian impact can easily be doubled when including patients, students and service traffic that circulate through the district each day. Over 45,000 employees and 21,000 students travel to the Longwood Medical Area (LMA) in Boston each day. When including patients and visitors, this number swells to 110,000 people. One-third of employees are from Boston and 51 percent of all employees rely on public or private transportation. When the public realm is overstressed, impacts can include crowded sidewalks, confusion and pedestrian/vehicle conflicts, which jeopardize not only public safety but the ability of institutions to grow and modernize – essential to continued viability for health sciences institutions, given their dependence on efficient, technologically demanding and programmatically complex space.

Further, increasing disincentives to parking development and private vehicle use from a variety of sources are driving the need for solutions that place more pedestrians on bikes, buses and ultimately, on sidewalks. Making this work is more than a matter of convenience in Health Science districts where “pedestrians” can include mobility impaired patients with the need for clear wayfinding that comes with unfamiliarity and increased anxiety.

While current impacts are considerable, growth projections can significantly compound the problem.

Anecdotally, built area in the LMA has doubled every 30 years for the last 100 years; development plans currently approved or in progress by the medical institutions will total up to seven million square feet by 2035.

As Tufts Medical Center strengthens its position as a medical destination over the next generation, planning for improved access and patient experience will need to consider reduction of excessive bus traffic on Washington Street; planning for residential, retail and mixed use development will need to incorporate bike transit, improved rider experience and consider relocation of access to the Chinatown MBTA station. Some of this planning could involve rethinking the use of city-owned parcels in the area, for example, to provide off-street bus loading and unloading, a bike hub and better connection to the subway.

As these cases illustrate, increased transit capacity, centralization and accommodation of multiple modes is becoming a critical success factor for development in many dense, growth-constrained institutional districts. While transit is traditionally more the domain of municipal planning, in districts where feasibility of institutional development is dependent on public improvements (including transit), the public realm needs to be part of the core institutional planning process.

And while transit is an important stress point in the public realm, it goes further. This also means planning for walkability, open space, vibrant sidewalk life, complete (multimodal, green, smart) streets and public amenities such as social spaces and even retail. Deeper sidewalks to support a more vibrant pedestrian experience may require rounds of building improvements to fully realize as building replacement paces with institutional need and capital horizons.

Not-for-profit institutions are different than commercial ventures. Public improvements may be funded publicly or through private public partnerships making planning and consensus-building in this arena a team sport. This is where organizations such as the Medical Academic and Scientific Community Organization (MASCO) in the LMA become invaluable facilitators, thinkers and advocates for institutions they represent with the city, state and federal government. The planning team must structure an incremental roadmap where achievable near-term improvements evolve seamlessly over time with phasing, funding and approvals for more ambitious components.

Whoever has the plan controls the discussion. This calls for a master planning process that innovates at the intersection of institutional and urban planning – and introduces some unavoidable but manageable complexity.

One key issue is time – while a master plan must outline actionable, achievable solutions to near-term problems, in this arena it must also provide a credible and reassuring long-term context for short-term initiatives (and capital expenditure). The “long term” is important because institutions - particularly in the health sciences - tend to be long-term owners and enterprises. The “value” of an expensive or complicated near-term initiative is increased many times by its impact as a step in a visionary longer term plan – for which the district and the institutions it supports can be assumed to be long-term participants. The overall plan provides incentive for approvals, entitlement and participation of multiple parties in the near term – and while any long-term plan will assuredly evolve over time, it allows whoever has the “plan” at any point to control the discussion.

Transit – and improvements to the broader public realm - is as much a success enabler in institutional districts as in commercial and mixed use districts but the return on investment accrues over a longer term and is measured more in terms of human than financial capital. A hospital can’t charge more for an emergency room visit because of proximity to transit, but it may find it is easier to recruit qualified nursing staff – which for many patients is an important public benefit.
Keeping Back-of-the-House Safety in the Forefront

What You Need To Know

Ed Lydon, MS, CHFM, SASHE, WSO/CST, Director of Support Services, Beverly Hospital—A member of Lahey Health

Hospital safety and efforts to protect staff, patients, and visitors is a high priority. Patient safety is the greatest daily focus. However, it is important to consider safety in the “back of the house” as well: the shops, mechanical rooms, central plants, tunnels, vaults, and other areas where our patients and clinicians don’t go. Facility managers who are conscientious about safety throughout the main areas of the hospital must remain just as vigilant about safety in areas not used for patient care.

Employee safety is very much a growing concern. While a number of factors contribute to this issue, including workplace violence, this article focuses primarily on safety. The Occupational Safety and Health Administration (OSHA) has stated that a hospital is one of the most hazardous places to work. In 2011, U.S. hospitals recorded 253,700 work-related injuries and illnesses, a rate of 6.8 work-related injuries and illnesses for every 100 full-time employees, according to 2016 OSHA statistics. This incidence is almost twice the rate for private industry as a whole. This statistic is alarming!

To help address this issue, OSHA and the Joint Commission have formed an alliance and have agreed to provide organizations with information, guidance, and access to training resources that will help them protect the health and safety of workers. More specifically, the alliance will work in unison to address reducing and preventing exposure to physical, chemical, biological, and airborne hazards in health care.

On July 17, 2014, Dr. David Michaels, the assistant secretary of labor for the U.S. Department of Labor sent a letter to each hospital CEO and urged executives to take the first step of assessing the workplace and benchmarking the facility against high-performing hospitals. The letter reminded executives that:

A hospital is one of the most hazardous places to work in America, In many ways, hospitals pay the price when an employee gets hurt on the job, and workplace safety also affects patient care. Occupational safety precautions need to become daily practice for facility staff. A robust facility department safety and health program should include ongoing assessment and surveillance of the physical environment and annual training. The goal should be to prevent workplace injuries, illnesses, and deaths, each of which leads to suffering and financial hardship for workers, their families, and/or the hospital.

Facility managers should be aware of two OSHA standards: 29 CFR 1910, which is the general industry standard, and 29 CFR 1926, which is the construction standard. The focus of this article is primarily general industry standard 29 CFR 1910.

A safety and health program should first assess the facility department physical environment. Ask questions such as: Where are the hazards? Are shop machines (1910.212) such as grinding wheels, drill presses, and table saws guarded? What are the hearing/noise exposure levels (1910.95) in the boiler room, chiller room, and emergency generator room during normal operations and testing? Is the paint shop storing hazardous material (1910.1200) appropriately? Is there asbestos and is it presenting a hazard (1910.1001 and 1926.1101)? Are eyewash stations (1910.151) located where caustic and acid chemicals are in use? Is personal protective equipment (PPE) (1910.133 and various standards) such as head, eye, hand, and foot protection available and worn by facility staff? Are facility staff storing PPE correctly? Often PPE is dirty, discolored, damaged, and stored inappropriately. This is a sign that staff is not wearing PPE. Look at confined spaces (1910.146 and new NFPA 350 Confined Space Guidance document), boilers, electrical vaults, steam vaults, tunnels, and the like to determine where to be concerned with maintaining egress and exiting (1910.36).

A safety and health program should also recognize that most OSHA standards require annual training. Facility insurance providers (general liability and property), material suppliers, and service companies will often offer safety and risk reduction training at no charge to the facility staff. Document the training conducted. Some of the standards requiring training include those covering:

- Confined spaces
- Lockout/tag out
- Hazardous communications
- Ladders
- Respiratory protection
- Asbestos

Common Findings for Improvement

During the past 10 years, I have performed mock Joint Commission surveys at hospital across the United States to help hospitals find areas that can be improved. During mock surveys, I perform safety tracers, which reveal aspects of the facility safety program that might require attention. Quite often I find electrical panels that have been blocked in mechanical spaces, boiler rooms, and electrical rooms—even though facility staff are well aware of the 3-foot clearance requirement in front of electrical panels. Inside the electrical panel, I may find electrical circuits turned off with electrical tape over the circuit, a practice that calls into question whether a lockout/tag out program (1910.147) is appropriately in place. A review of the panel ledger might reveal that it is not always accurate nor always legible. Finally, I may find a circuit breaker missing altogether—creating a concern about open hot contact exposure to a facility staff member accessing the panel.

After examining the electrical panel, I look at the lockout/tag out program. Often the two-page document I find gives a partial overview of the program but does not include written procedures that demonstrate that every machine and piece of equipment has been assessed
to define prevention strategies for unexpected energization, start up, or release of stored energy, all which could cause injury during a maintenance operation.

When I conduct mock Joint Commission surveys, I often also find:

- Unguarded machines and pinch points such as grinding wheels and drill presses
- Lack of confined space identification
- Inappropriately stored respirators, and facility staff unaware of the respiratory protection program; use of N95 respirators as dust masks with no compliance with a respiratory protection program
- Lack of fire extinguisher signage
- Obstructed exit egress and exit discharge
- Use and storage of hazardous material (caustic and acids) and a lack of eyewash stations
- Improper storage of cylinders and PPE for welding

These physical environment conditions (and many more) can lead to numerous OSHA and Joint Commission standard findings. OSHA, as an enforcement agency, may assess monetary penalties that will quickly add up to large sums and result in public embarrassment.

Some people may not realize how high a priority safety is to the Joint Commission. The Joint Commission has published a comparison of “Safety and Health Management Systems” and Joint Commission standards that is available on the Joint Commission web page. The Joint Commission and OSHA also publish numerous articles and fact sheets on safety topics.

OSHA’s Voluntary Protection Program

A facility that desires to become known as a high-performing facility by OSHA and the Joint Commission should consider the OSHA Voluntary Protection Program (VPP). Recognition from this program demonstrates a commitment to the safety and health of employees. According to OSHA, the VPP promotes effective worksite-based safety and health. The VPP promotes a relationship between management, labor, and OSHA to implement a comprehensive safety and health management program.

Acceptance into VPP is OSHA’s official recognition of the outstanding efforts an organization makes in occupational safety and health. The program is built on encouraging the hospital and hospital employees to reduce the number of occupational safety and health hazards within the work environment, and to stimulate management and the workforce to implement new and perfect existing programs for providing a safe and healthy working environment.

Participating in VPP is similar to other standards that facility managers follow. VPP has created performance-based criteria for a managed safety and health system and invites the hospital to an application process and on-site evaluation by a team of OSHA safety and health experts. OSHA then places the qualified hospital into one of three categories:

- Star: Recognizes employers and employees who demonstrate exemplary achievement in the prevention and control of occupational safety and health hazards and the development, implementation, and continuous improvement of their safety and health management programs.
- Merit: Recognizes employers and employees who have developed and implemented good safety and health management systems, but who must take additional steps to reach Star quality.
- Demonstration: Recognizes employers and employees who operate effective safety and health management systems that differ from current VPP requirements. This designation enables OSHA to test the efficacy of different approaches. For additional information use the following link www.osha.gov/dcsp/vpp/index.

Hospital facility managers should look carefully at the back of the house to engage facility staff and embrace worker safety and health on a daily basis. To help, OSHA has recently updated its health care material online via Hospital eTool (https://www.osha.gov/SLTC/etools/hospital/index.html), which is an informative site. Consulting firms with safety professionals can also perform safety compliance audits.

This article first appeared in the Summer 2016 edition of Inside ASHE magazine. Copyright ASHE 2016. Reprinted here with permission.

Do You Have A Story To Share?

We would like to highlight stories from your facilities to share with other members similar to those shared in this issue. Even if you only have an inkling of an idea, contact us and we can help work the idea into an article.

We need material for our quarterly newsletter but we also need ongoing material to feature on the NEHES website header. Photos from your project would be most appreciated.

For the newsletter, articles can be around 750 words with photos.

For the website, longer articles can be posted. High resolution photos work best.

Submit your story ideas to the NEHES Newsletter and Website Co-Chair at anandseth004@gmail.com.

Anand will consider all requests and work out details with our NEHES Editor, Dan Marois, from Mainely Communications.

Remember, too, that there is a cash prize given to the most outstanding newsletter article each year.
Heat Exchanger Cleaning

Preventative Maintenance Pays Dividends

Greg Foote
General Manager
American Plant Maintenance

Heat exchangers are widely used in industry both for cooling and heating large scale industrial processes. The heat exchangers used in healthcare engineering are typically on the smaller end of the scale when it comes to size, but they are no slouch when it comes to energy savings.

AHU’s reheat coils, domestic hot water heaters, and especially clean steam generators are great opportunities for energy savings.

There are two different types of fouling that take place inside of heat exchangers. The first type is called macro-fouling, and this is caused by relatively large pieces of debris that are entrained in the fluid. These contaminants are introduced to the system during construction, filling, maintenance or sometimes through normal operation. The debris causes partial or complete blockage of the heat exchange medium pathways and effectively minimizes the amount of heat exchange surface.

The second type of fouling that is commonly seen is scaling caused by impurities that are carried in solution in the heat exchange medium. Heating causes the impurities to precipitate out of solution and adhere to the heat source, causing scale. The impurities are generally a characteristic of the source and type of fluid. Fouling reduces the effective heat exchanger surface area. It slows the transfer of heat energy across the heat exchanger and causes the temperature differential required to meet setpoint to rise, thus lowering system efficiency.

To maintain your systems, it is important to seek out a provider that can service heat exchangers to improve efficiency and allow better control of processes.

During a heat exchanger cleaning, you should expect the following from your provider:

- Pressure test heat exchanger to test for leaks prior to cleaning
- Clean heat exchanger
  * A biodegradable descaler should be circulated through the water side to sagely dissolve scale, lime, mud and trust deposits.
- The pH of the cleaning should be monitored throughout the cleaning process to ensure effective cleaning
- Flush heat exchanger
- Repeat pressure test of heat exchanger

A clean heat exchanger optimizes efficiency by increasing the effective heat transfer surface by returning it back to manufacturing specifications. This also produces less pressure drop on the system, requiring less effort on the pumps and other components.

Close up of a Tube Heat Exchanger fouling before cleaning.

Close up of a Tube Heat Exchanger fouling after cleaning.

William Norberg
Sr. Account Executive
VFA, an Accruent Company
Boston, MA

Thomas Ouellet
Vice President, Filter Sales & Services
Burlington, MA

Kevin Wyrsch
Associate Principal, Isgenuity
Boston, MA

Dana Gagnon
Maintenance Supervising
Eastern Maine Medical Center
Bangor, ME

Gregory Burgess
Commissioning Services Manager
SMRT Architects and Engineers
Portland, ME

Philip LoPresti
Director of Facilities
Stamford Health, Stamford, CT

Sarah Bollinger
Energy Solutions Executive
ESC, Inc., West Hartford, CT

David Schnell
Safety and Emergency Preparedness
Women & Infants Hospital
Providence, RI

Jonathan Halle
Principal Architect
Warrenstreet Architects, Inc.
Concord, NH

Frank Peropat
Business Development Manager
Grifols USA LLC
Bradley Beach, NJ

New and Renewing NEHES Members—— Join or Renew Today
Combined Heat and Power (CHP) Fatal Flaws

**Know the Signs**

**Reid Sprite, PE**
Engineering Manager, SourceOne

**Seth Berkman**
Marketing Coordinator, SourceOne

New England states looking to incentivize clean, reliable and cost-effective ways to produce energy are investing in combined heat and power and related technologies (CHP). Between Connecticut’s Microgrid Grant and Loan Program and the Massachusetts Green Communities Act, over $70 million has been committed to supporting microgrids technologies over the past few years. Many of the funded projects are or will be powered by some form of CHP.

Hospitals often have both substantial thermal and electrical load and relatively high load factors. As such, they can be good candidates for CHP. But abstract potential does not a sound investment make. For all their purported benefits—cost savings, emission reduction, resiliency—an ill-conceived or poorly planned CHP facility can be a large capital expense for which your reward is outsized operational costs and complications. This is why it is so critical to conduct an in-depth technical and financial fatal flaw analysis as the first step in any CHP project. The main purpose of a fatal flaw analysis is to give yourself an opportunity to do a gut-check and ask the ever-important question: Are there any show-stoppers that will prevent this project from being a success?

While a CHP plant can provide resiliency benefits, it is first and foremost an efficiency measure. CHP efficiency gains come from putting waste heat from electricity production to useful work. This depends on having a facility that can use both the thermal and electrical energy. A key component of the fatal flaw analysis is to evaluate the facility’s thermal and electrical load profiles. This is done by carefully collecting and plotting hourly data for an entire year—“8760 data”—of electricity, steam, hot water and chilled water usage.

A CHP plant that operates at or close to full capacity 24 hours a day, will be most cost effective. To do so, the facility must have consistent electrical and thermal loads, and the ratio between those loads must correspond with the plant’s power-to-heat output ratio. If the facility has insufficient or poorly matched thermal and electrical loads, the CHP plant may sit unused for a large portion of the year. This makes it very difficult to recoup the capital cost of building the plant.

This also explains why, as a rule of thumb, it is better to undersize a CHP plant than to oversize it. While an undersized plant may not be able to accommodate the facility’s peak load, it is much likelier to run continuously. The implications are two-fold. First, you will constantly be recouping your smaller-to-begin-with capital expenditure. Second, a plant that you can simply leave running requires considerably less operational attention than one which is regularly being turned on and off in response to your facility’s demand.

Even if your facility’s load profiles fit the CHP plant, there are other important factors to consider. Utility interconnection can introduce complex technical and regulatory challenges. Micro and macro grids operate more flexibly when they remain connected. So while many CHP plants are capable of operating in island mode if necessary, under normal conditions they usually run in parallel with the grid. A fatal flaw analysis offers an opportunity to check if a fuel supply to the proposed plant site already exists and whether the appropriately sized electrical connection infrastructure will fit. Connecting independent generation to the grid also requires permission from the local distribution company. By investigating the interconnection possibilities, you can identify permitting and regulatory hurdles early and resolve them.

Pointing out these obstacles is not intended to diminish the promise of CHP solutions. In a very real way, helping customers fulfill that promise is our livelihood, and SourceOne has helped implement many CHP plants at health care and other facilities to great effect. What those success stories have in common, however, is a thorough planning phase and a willingness to walk away from the project if the technology does not fit the context.

To learn more, contact Reid Sprite at rsprite@s1inc.com or 617.399.6152.
No matter how you look at it, membership in professional organizations, such as NEHES, is great for personal development and career advancement.

Alison Brisson joined NEHES about eight years ago. She says that membership has been invaluable in so many ways.

“I came to healthcare from the hospitality business,” said Brisson. “In my first experience with NEHES, I got a better understanding of the healthcare engineering industry and it allowed me to have mentors in the business and to network with other professionals.”

Brisson welcomes the fact that NEHES members have a great deal of knowledge and insight which can help make the healthcare physical environment a better place.

Her journey really began when she joined the New Hampshire Society of Facility Managers where she formed professional relationships with other leaders in the state. From there, she became the State Rep to the NEHES Board where she has been involved as Treasurer. In 2017, she will become the NEHES President.

Brisson has also served on the ASHE Annual Abstract Review Committee for the past two years and is now on the ASHE Sustainability Task Force.

Brisson would encourage all healthcare engineers and facility managers to join at least one, or possibly more, professional organizations.

“NEHES is a conduit to get timely and relevant information about our industry,” said Brisson. “It certainly helps with professional development by being active and engaged in a professional organization. It can also help to build your resume.”

And a very tangible benefit occurred when Brisson received a NEHES scholarship to continue her education. “It allowed me to further my study in business,” said Brisson, who urges all NEHES members to consider applying for scholarship aid.

Ron Vachon has worked in healthcare for 34 years. He started out of trade school as a mechanical contractor, then a supervisory position at Bath Iron Works while continuing his education at University of Southern Maine as an adult student. He later landed a position with the Veterans Hospital where he remained for 13 years.

“Early on when working at The Veterans Administration Hospital at Togus, Don Garrison invited me to my first MEHES Meeting. From there I paid my $15 dues and I had gone to several State Meetings for many years which later evolved into NEHES and ASHE national committee and board work,” said Vachon.

With NEHES he has taken on different roles including Maine State Rep, Public Relations Chair, Newsletter Chair, and Website Chair. In 2006, he served as NEHES President.

He’s gone on to serve in many roles with ASHE on the national level including serving on the charter committee in developing the CHFM program.

“Growing through the ranks of committee volunteer and officership, some of the contributions of hours of volunteer work yielded access and friendships with the likes of industry leaders such as Sammet, Mills, Stymeist, Woodin, and Lussier,” said Vachon. “It is nice to know that you can pick up a phone and call on colleagues like these to get expert information and, occasionally, get a call from them for ‘boots on the ground’ information which is assuring and confidence boosting.”

“If you contribute to committees and boards, you will be engaged and stay engaged,” Vachon emphasizes. “Recently I was invited to Chair and be the Master of Ceremonies for the ASHE Annual Chapter Leadership Forum held at the Annual Conference and I am currently on ASHE’s PDC supporting member Task Force and ASHE Compliance Tactics Task Force.”

Vachon says that he spends about 20 hours a month working on professional organizations.

“The rewards are many,” admits Vachon, who attributes much of his successes in his career to the affiliations in professional societies. “When there were limited dollars, it was a nice reward for my volunteer efforts to get offsets to attend seminars and conferences that I otherwise couldn’t attend.”

Jack Gosselin, FASHE, CHFM, has 36 years of experience in healthcare engineering with his first position being at a small hospital in Vermont.

He is a cheerleader extraordinaire when it comes to professional involvement.

“You get out of it what you put into it,” claims Gosselin. “This involvement with NEHES has been the backbone of my career.”

After a career in the industry, he started his own firm that does recruitment for key positions in healthcare engineering and facility management. On a daily basis, he is meeting and interviewing candidates for leadership positions and hospitals throughout the country.

“When I am looking for a candidate for a position, I look at their experience, that’s always important,” said Gosselin. “But I also look at their communication skills and their ability to bring initiatives to the table. The people who get the top jobs have volunteered in professional organizations and have joined committees on the local, regional and national level. Today, it is expected from a top candidate.”

Gosselin often hears comments from engineers who say they can’t afford to participate in professional organizations and they can’t find time to get away from their facility.

“You can’t afford not to be involved,” said Gosselin. “If you are effective in your job, there needs to be a structure in your job that can support your professional development.”

Want to share info on your involvement in professional groups?

Tell us how the involvement in your state chapter, NEHES or ASHE has made a difference in your career.

Send your interest to anandseth004@gmail.com
Want to get recognition for your great work? Here are levels of recognition offered by the American Society for Healthcare Engineering.

**Crystal Eagle Award** - This distinguished award recognizes one outstanding ASHE member for his or her excellent leadership qualities, innovation, and overall contribution to ASHE and/or the field of healthcare engineering and facility management.

**Emerging Regional Leader** – One person from each ASHE region, is honored for their exemplary leadership skills and their commitment to the field of healthcare facility management through their local and/or national involvement with ASHE. Our own, Paul Cantrell, CHFM was awarded this in 2015.

**Energy to Care Award** - The Energy to Care Awards honor health care facilities that reduce energy consumption by 10 percent. The program also recognizes previous award winners that reduce energy consumption by 5 percent.

**Energy Champion Award**—The Energy Champion Award is given out once per year to honor a single facility (acute care hospital or medical office building as defined by Energy Star) that has demonstrated outstanding leadership in energy efficiency. Hospitals and medical office buildings participating in Energy to Care that have an ASHE member on staff are eligible for this prestigious award.

**Excellence in Facility Management Award** - Honors individuals and teams who exemplify how facility managers and care-givers join together to identify an issue and create a proactive and viable approach to attaining resolution that optimizes the physical environment and improves patient care.

**President's Award**—The President's Award is presented at the discretion of the sitting ASHE president to an individual who has made significant contributions to the health care facility management profession and has gone above and beyond the call of duty in an effort to optimize the health care physical environment.

**Vista Awards** - Recognizing teamwork in the design and construction of the healthcare physical environment for new construction, renovation and infrastructure.

**SASHE** - Senior status (SASHE) is granted to an ASHE active member demonstrating a commitment to the healthcare facilities management profession and recognizes their contribution to the industry through leadership, education and publishing.

**FASHE** - Fellow status (FASHE) is granted to ASHE active members who have achieved Senior status and continue to demonstrate commitment to the healthcare facilities management profession.

**Certifications**—In an effort to develop leaders who work in unison to optimize the physical healthcare environment, ASHE offers two professional certifications:
- Certified Healthcare Constructor (CHC)
- Certified Healthcare Facility Manager (CHFM)

For more info on recognition, [ASHE Awards](https://www.ashe.org/ASHE_Awards.html).

---

**Join ASHE Today**

The American Society for Healthcare Engineering (ASHE) is one of the largest associations devoted to optimizing the healthcare built environment and is a personal membership organization of the American Hospital Association.

Joining ASHE provides you with access to a robust network of trusted resources to further enhance your experience as professional working in healthcare.

When you join ASHE, you gain access to a robust network of 11,000+ professionals who are passionate about delivering safe and effective patient care environments. Plus, you will have access to several trusted resources to further enhance your experience as a professional working in healthcare.

$25 **Educator/Student Member**
These individuals are full-time educators teaching or college students taking course work related to any discipline represented by ASHE. Educator/Student members may serve on committees and participate in the Actions for Professional Excellence (APex) recognition program, but may not vote or hold office.

Think about it. For much less than the cost of a cup of coffee—40 cents a day—you can become part of one of the most prestigious professional associations in the US.

You can easily join ASHE online. Do it today. [ASHE Membership](https://www.ashe.org/join.html).
Effective Daylighting Can Reduce Building Energy Consumption

Published in proudgreenbuilding.com, up to 60 percent of a company’s energy consumption – fueled mostly by lighting and HVAC – can be lowered by properly regulating the amount of natural light used or not used in its facilities, according to the U.S. Department of Energy.

The concept of daylight harvesting has grown in popularity in recent years as companies look to reduce their energy consumption for environmental and budgetary reasons. Here are four trends dominating the conversation, according to a release from light management solutions company Ver-Tex.

Smart technology integration: Buildings are becoming more and more connected, whether it be thermostats or coffeemakers. With smart technology becoming commonplace, it only makes sense to determine how dynamic components supported by powerful software can determine the proper amount of sunlight needed in a space.

Stronger usage of daylight and less usage of artificial light: Most buildings are over-lit and with light levels set higher than required for the space. Oftentimes, spaces are lit even when they are unoccupied. By regulating daylight, facilities can maximize energy efficiency, comfort and productivity.

Automate interior shading: Automated shades can adjust based on the sun’s position throughout the day. Settings can be programmed based on the season, building location and façade. New technologies, which include brightness and shadow sensors, provide solutions designed to optimize comfort and lower energy costs.

Integrate lighting control system: Lights can brighten and dim automatically, as more or less light is needed. On a sunny day, spaces need less artificial light. Conversely cloudy days require interior lights which brighten the space to create an ideal work environment. Working in tandem, both automated lighting and shading control systems can conveniently and significantly reduce energy costs.

“While we use Earth Day as a moment in time to look at sustainability, we should be considering these important issues all year long,” said Matthew Goodwin, Ver-Tex CEO. “These convenient, integrated solutions save energy, which is important for the environment, while enhancing productivity, which is great for the business.” More info, proudgreenbuilding.com

How Reprocessing Medical Devices Can Save Millions While Diverting Waste

Medical waste — more than 5.4 tons per year for an average operating room — costs each operating room about $5,243, according to the 2015 Practice Greenhealth Sustainability Benchmark Report.

A partnership between Johnson & Johnson subsidiary Ethicon, which manufacturers surgical devices and Intermountain Healthcare is tackling this issue, reducing waste and operating room expenses, through a circular systems approach. In 2015 this approach saved the health care company about $250,000 on medical devices, or 22 percent on total spending of $1.1 million. It also diverted 59,964 pounds of waste from landfills, avoiding 35,978.4 pounds of CO2 emissions.

Single-use medical devices, such as ultrasound catheters, surgical drills and laparoscopy scissors, are designed to be used only once and then tossed. This creates a huge amount of medical waste — and can be expensive for hospitals to replace new single-use items.

Intermountain, a Salt Lake City-based health care system with 22 hospitals and 185 clinics, already recycled materials and had been doing this for several years. But simply recycling wasn’t helping the health care company meet its environmental or business goals, says Steve Bergstrom, Intermountain director of sustainability. “We needed to reduce consumption and the only way to accomplish that was through a circular approach,” he said in an interview with Environmental Leader.

After discussing this concept at CleanMed, a health care industry environmental conference, Intermountain and Ethicon teamed up to improve medical device collection and reprocess devices. The partnership works like this: Intermountain collects used medical devices. It returns them to Ethicon, which sends them to Sterilmed, also a Johnson & Johnson company, for reprocessing. Sterilmed turns the old devices into new ones and then Intermountain buys back a mix of reprocessed and OEM devices from Ethicon.

“It required an interdepartmental effort on both sides to make this work,” Tim Lessek, senior marketing manager of Ethicon, told Environmental Leader. For complete story, environmentalleader.com

EPA’s Climate Leadership Award

Health care organizations can gain a number of returns by investing in sustainable interiors. Green interior design enables facilities to be responsible stewards of environmental health and safety as well as their financial health.

Healthful materials generally can be obtained at little or no additional cost — and sometimes can cost even less.

“For hospitals, the focus on indoor-air quality for occupants’ health is where there’s a lot of low-hanging fruit in sustainable materials, both from contributing to overall sustainability and from an ROI perspective,” says Robin Guenther, FAIA, LEED Fellow, sustainable health care design leader in the New York City office of Perkins+Will and senior adviser to environmental health care group Health Care Without Harm.

In the past, facilities often paid a premium for materials that did not emit volatile organic compounds. “But, by and large those materials have become much more cost neutral as they’ve become the predominant materials in the marketplace,” Guenther says.

According to Guenther, materials with recycled content also have been integrated into the market to the point that they no longer come at a premium. This is becoming true for interior products in general. Manufacturers are looking to remain relevant to a market concerned with material health; in addition, they’re realizing benefits from not having to buy and handle as many regulated chemicals.

“As a result, hospitals have more options for healthful materials than in the past,” says Jackson.

If health care wants better materials, healthful materials and more sustainable materials, they have to be willing in a way to invest in growing those markets,” she says. In addition, health care organizations can use their buying power to actively influence manufacturers to develop sustainable alternatives.

“At 18 percent of the GDP, if health care can consolidate and ask for a healthful product, the market is going to deliver.”

Full story: hfmmagazine.com
Globally Harmonized System Now On Tap

The Globally Harmonized System (GHS) was established by the United Nations to create a unified system for identifying and communicating hazardous chemicals. According to OSHA, the new standard covers more than 43 million workers who produce or handle hazardous chemicals in more than 5 million workplaces across the country.

GHS compliance is required even for chemical formulations purchased in bulk containers for cost savings, such as barrels of disinfectant, sanitizer, or sterilant, that are transferred to smaller “down-packed” containers, such as bottles, for portable use. Container sizes requiring GHS-compliant labeling generally range from 55-gallon drums down to spray bottles and even small samples or test vials.

With the just-passed GHS deadline for health care facility and lab end users in mind, here are six tips to quickly get up to speed on GHS regulation and ensure compliance for even smaller “down-packed” chemical container labeling.

1. Have GHS-compliant safety data sheets and labels and train workers to handle hazardous chemicals properly. On each GHS label, six items of data are required: Product Name or Identifier; Hazard Statement; Signal Word; GHS Pictogram symbols; Precautionary Statement; and Supplier Information.

Instead of the familiar black-and-white pictogram symbols previously used in safety labeling, GHS labels now require pictogram symbols that convey hazard information with a red diamond border.

2. Label all secondary containers. If a chemical is supplied to the workplace with a GHS label, it must be maintained. If the chemical is transferred to a secondary container, such as a tank or bottle that stays in the workplace, employers may label it with information from the original GHS shipping label or safety data sheet.

However, employers may choose to use an alternate system, such as the National Fire Protection Association's (NFPA) Standard 704 or the American Coatings Association (ACA)'s Hazardous Materials Identification System (HMIS®). If using an alternate system, the employer must ensure the information is consistent with GHS and that workers understand specific physical and health hazards.

If a chemical is transferred to a “portable” secondary container, such as a flask, beaker, or dropper bottle, for use only by the person who transferred it during the same work shift, a label is not required because it is considered "immediate use."

3. Save on printing with durable label options on demand. For those currently using HMIS or NFPA labels for health care or lab containers, related written documentation, and training, the question is how to achieve GHS compliance and integrate it with HMIS or NFPA, which have been used for decades. Though differences exist in GHS, HMIS, and NFPA, such as opposite numbering for GHS level of hazard, OSHA allows employers to use HMIS and NFPA in the workplace as long as they are consistent with GHS (HCS 2012) and workers are properly trained for GHS.

Implementing GHS labeling can seem daunting to industrial end users, but it does not have to be. Many are turning to flexible, lower-cost options, such as industrial-grade labels that allow printing durable GHS, HMIS, or hybrid labels on demand with existing laser printers and pigment-based inkjet printers. Unlike standard labels, industrial labels are used in harsh environments and so must be very durable and able to withstand exposure to chemicals, abrasion, tearing, moisture, sunlight, and high temperatures.

4. Meet rugged GHS industrial requirements to stay compliant. The challenge is that, to be GHS compliant, labels must stay reliably affixed without fading or becoming unreadable, despite harsh conditions that include exposure to chemicals, moisture, and spills.

Some industrial label companies have designed their labels to meet rigorous GHS requirements. One type is chemical resistant, tear resistant, abrasion resistant, and constructed with a marine-grade adhesive that is waterproof and passes a 90-day seawater submersion adhesion test. Unlike typical labels, which crack and harden in harsh conditions, the GHS labels are also very UV and temperature resistant. In addition, they resist harsh chemicals such as acetone and MEK when printed from pigment-based inkjet printers.

"Staying GHS compliant will not only help health care and lab end users avoid OSHA fines, sanctions, or auditing, but also position them ahead of the curve if other industry standards are allowed to sunset," said Glenn Hallett, president of RightAnswer.com, Inc., a chemical compliance and information specialist.

Hallett notes that remaining GHS label compliant depends on the durability of the appropriate label substrate, getting the label content right, and effective document management.

"Health care and lab settings that have long used HMIS labels will now also want the ability to print GHS labels, HMIS labels, NFPA labels, or some alternative that will accommodate their requirements," he said. "Such flexibility will help ease the industry's transition to GHS labeling and minimize any operational disruption."

5. Take advantage of free label-printing software. GHS-, HMIS-, and NFPA-compliant label software is available at no cost. Employees can create and print their own GHS and HMIS labels from pre-designed templates, create on-demand labels step by step at their desk, and create GHS and HMIS hybrid labels capable of satisfying both systems. Most employers find such a process intuitive, since it resembles creating an office document from pre-designed templates.

The software includes the pictograms and GHS compliant statements needed for GHS labeling; allows customizable text and the insertion of logos or other images; generation of 18 types of barcodes; and a sequential numbering feature to add lot numbers or other variable data. GHS, HMIS, and NFPA labels can be securely saved online or to a computer. The software is also capable of printing other safety labels, such as OSHA, ANSI, and DOT labels.

6. Choose GHS labels that work with the full range of container sizes and container surface types. GHS and HMIS labels are available in a range of sizes—to fit drums, totes, pails, cans, jugs, containers, and even small bottles—that can be applied to a variety of surfaces, such as metal, plastic, glass, ceramic, polycarbonate, painted surfaces, and more.

Info: ohsonline.com

The final rule adopting the 2012 edition was published in the Federal Register on May 4 and is available on the Federal Register’s public inspection site.

The document includes about 100 pages of background material, but ASHE has extracted the final rule from the larger document to more easily show the relevant conditions of participation for hospitals, ambulatory surgical centers, and other health care facilities; that information is on the ASHE website.

The change went into effective July 5 and comes after years of CMS considering the change to the more updated standard. In its rule, CMS adopts the 2012 edition of the Life Safety Code and the 2012 edition of NFPA: Health Care Facilities Code—but makes several changes to the codes. For example, the chapters of NFPA 99 on the following topics are not included in the adoption: information technology (Chapter 7), plumbing (Chapter 8), emergency management (Chapter 12), and security (Chapter 13). CMS had previously proposed its own emergency preparedness rules separate from NFPA 99 requirements.

The rule will also make several changes for hospitals, including:

- Corridor doors and doors to rooms containing flammable or combustible materials must be provided with positive latching hardware. Roller latches are prohibited on such doors under the CMS rule.
- In consideration of a recommendation by the state survey agency or accrediting organization, CMS may waive specific provisions of the Life Safety Code that would result in unreasonable hardships but only if the waiver will not adversely affect the health and safety of the patients.
- Hospitals may install alcohol-based hand rub dispensers in its facility if the dispensers are installed in a manner that adequately protects against inappropriate access. This requirement from CMS differs from the Life Safety Code, which doesn’t have any requirements against inappropriate access.
- When a sprinkler system is shut down for more than 10 hours, hospitals must either evacuate the building or portion of the building affected by the system outage until the system is back in service or establish a fire watch until the system is back in service.
- Buildings must have an outside window or outside door in every sleeping room, and for any building constructed after 60 days past the publication date of the rule, the sill height must not exceed 36 inches above the floor. Windows in atrium walls are considered outside windows for the purposes of this requirement. The sill height requirement does not apply to newborn nurseries and rooms intended for occupancy for less than 24 hours. The sill height in special nursing care areas of new occupancies must not exceed 60 inches.

ASHE had encouraged CMS to adopt the 2012 edition, and applauds CMS for taking this step toward more current codes. The 2012 edition of the Life Safety Code includes several advantages compared to the 2000 edition, which is currently required by CMS. The 2012 edition reduces conflicts with other codes, including the International Building Code, meaning hospitals will use fewer resources trying to comply with conflicting codes. The 2012 edition also reflects the needs of modern health care facilities, such as larger critical care patient rooms.

ASHE has several resources available—and new resources coming soon—for members responsible for addressing these regulatory changes in their facilities. Resources include:

- An ASHE monograph exploring the specific differences between the 2000 and 2012 editions of the Life Safety Code. ASHE members can download the monograph for free. [Download monograph]
- A webinar series explaining code changes in the 2012 edition of the Life Safety Code. All webinars in the series are free for ASHE members, and recordings of previous webinars in the series are available for free to ASHE members. [Previous webinars available on demand]
- The 2012 Edition of NFPA 101 and Its Impact on Health Care Facilities
- Chapter 43 of NFPA 99 and Its Impact on Health Care Facilities

Visit ASHE’s webinar webpage to learn more or register for these events.

An e-learning course on the applications of NFPA 99 in health care facilities. The course covers the 2012 edition of NFPA 99, including the important shift to a risk-based approach. Learn more about the course online.

Special Session at the NEHES Fall Conference


The long awaited announcement from CMS that the adoption of the 2012 editions of NFPA 99 and 101 has finally occurred. With an effective date of July 5, this is now a reality for facilities. This session will detail key provisions you should be aware of in the 2012 edition of NFPA 99; the application of NFPA 99 to existing facilities; and what provision must our existing buildings/systems/equipment meet in order to comply.

On top of covering the organizational and stylistic changes, this session will also cover the most important technical changes made throughout the code as well as topics that are of the most interest to healthcare engineers.
We are looking for 15 hospitals to meet the challenges.

Energy to Care participants can engage in friendly competition to see which facilities can record the greatest reductions in energy use. To create your own internal challenge as a health care system or ASHE chapter, please contact the Energy to Care help desk at energytocare@aha.org. ASHE is currently enrolling ASHE-affiliated chapters in the Energy to Care Chapter Challenge.

The Energy to Care ASHE Chapter Challenge program allows ASHE affiliated chapters to participate in a friendly competition against one another in an effort to reduce their energy consumption. To participate in this challenge, chapter leaders must submit applications by September 15, 2016. Detailed instructions are listed below.

CHAPTER CHALLENGE INFORMATION

- The Challenge will compare weather-normalized Source EUI between two, 12-month period ending dates 12/31/2015 and 12/31/2016. The group that demonstrates the greatest percent-based reduction in weather normalized EUI across the two periods will be the winner.
- ASHE’s Energy to Care team will conduct the calculations and will post an updated list of standings throughout the challenge.
  - A chapter must enroll a minimum of 5 hospitals to compete and there are two categories of participation:
    - Small chapter category (5 to 15 enrolled hospitals)
    - Large chapter category (more than 16 hospitals)
- To participate in this year’s challenge, you must sign up your chapter by completing the steps below by September 15, 2016.
  - Click here to review the Energy to Care Data Use Policy.

PARTICIPATION INSTRUCTIONS

To participate in the challenge, chapter leaders should take the following steps:

1) Talk to chapter members and gather information on the Energy to Care participating hospitals that want to participate in the Chapter Challenge program. To get a list of hospitals in your chapter area that currently participate in Energy to Care, email energytocare@aha.org. You will need the required data for each of the hospitals that want to participate in the Chapter Challenge using this Excel spreadsheet that will be uploaded as part of step 4.

2) Prior to the submission deadline, request hospitals participating in your chapter challenge to submit their baseline/mid-year energy data in Portfolio Manager by completing this data request. Data request templates are automatically populated by Portfolio Manager and can be generated quickly. Hospitals will automatically receive an email acknowledging your data has been received.

3) The ASHE Energy to Care Chapter Challenge is following ENERGY STAR competition guidelines and is co-branded as an EPA ENERGY STAR Battle of the Buildings competition. Complete the following application requesting to host your statewide Battle of the Buildings competition and upload with your application.

4) Complete the following Energy to Care ASHE Chapter Challenge online application form and submit it.

Application Form Word Document >>
Online Application Form>>

For more information on the NEHES Sustainability efforts, go to the website or contact the Committee Chair, Ed Browne at ebrowne@chaliance.org.
Are fans allowed in patient care areas, laboratories, or other support areas in an organization?

There are no specific Joint Commission standards that prohibit the use of fans.
While fans may be used for additional comfort of the patient, such as those with respiratory distress or post cardiac surgery, they may indicate to surveyors that a temperature control or ventilation problem exists, as described by EC.02.06.01.

Space temperature issues can impact equipment, patient testing results, and overall patient care. This concern usually arises after adding equipment or use of the space without increasing the capability of space cooling/ventilation.
The organization should perform a risk assessment, per EC.02.01.01 that includes the most appropriate persons available to the organization. Examples of assessment concerns could include:

- Risks pertinent to the needs of the patient
- Ventilation and/or temperature concerns for equipment
- Airborne particles/contamination that may impact patient care
- Procedure/treatment processes or equipment operation
- Maintaining the cleanliness of fan blades/housing;
- Possible tripping hazard(s) created by cords

Infection control should be a key element in the assessment process. The survey process will evaluate the risk assessment for effectiveness and validate proper implementation of the resulting policy/practice. Adjustments to the implemented process are to be made as needed. [EC.02.06.01]

What is the requirement for documentation of indoor quality and ventilation maintenance?

The Joint Commission requires no specific documentation or forms to be filled out for indoor air quality and proper ventilation maintenance.

Evidence of compliance with regard to the following criteria is required. Standard EC.02.05.01 EP 15 requires the hospital to maintain appropriate pressure relationships, air-exchange rates, and filtration efficiencies for the critical space types described in the EP Note. This includes implementing methods to validate continuous compliance for these three criteria at the space, and implementing methods to maintain the infrastructure equipment that achieve these three criteria.

Methods are established by the criteria described in EC.02.05.01 EP 1 through 7; systems are designed appropriately, inventoried and assessed, and a maintenance strategy established/implemented based upon manufacturers’ recommendation or an alternate equipment maintenance (AEM) strategy.

Frequencies of maintenance and testing are determined by assessment of the particular circumstances of the installation. Examples of air pressure relationship management could include periodic testing (like tissue/smoke test with logged results), continuous indicators (like ball-in-tube, mounted mechanical or electronic manometer), remote building automation system monitoring, etc.

Air exchange rate management could include periodic air balance tests, a building automation system with flow measurement capabilities, etc.

Air filtration efficiencies are maintained by regular evaluation and replacement of air handling unit and other system filters that serve these critical spaces. Infrastructure equipment maintenance includes ventilation fan and distribution system maintenance (AHU, exhaust/return fan systems), control and indicator maintenance/calibration, and critical space structural integrity (doors, walls, etc.).

The organization must document that the maintenance and testing activities implemented were performed on the schedule established. For other spaces assessed to be less critical, evidence of continuous compliant ventilation, temperature and humidity levels may not be required, but are to be initially set-up properly when affected by new construction, alteration or renovation, and through methods such as regular environmental rounding, occupant feedback and through maintenance activities. [EC.02.05.01]

What is the design and operational criteria for eye wash stations and emergency showers?

The Joint Commission references ANSI Z358-1 as a basis for evaluating eye wash station and emergency shower design configurations and functionality.

However, a proactive, defensible, documented risk assessment process that may deviate from Z358.1 is acceptable provided OSHA criteria is not compromised.

Eyewash bottles are acceptable as supplemental devices to eyewash stations (cannot replace) and should be employed through the risk assessment process for applicability.

What are the requirements for an emergency call button in a public accessible restroom?

See the FGI Guidelines for Design & Construction of Hospital and Health Care Facilities (2010 edition) for specific application of nurse call and call buttons.

The requirements are not the same for different services that may be provided - the level of risk to the patient determines location.

If the restroom application is not in the Guidelines, conduct a risk assessment to determine the need of a call button. Also, in a business occupancy, the risk assessment may include the physical condition/ability/needs of the public that may use a public restroom. Another consideration may be the organization’s policy of response in a public setting (i.e., does the organization provide assistance or contact EMS as first responder to a public occurrence?).

In addition to the FGI, NFPA 99 lists requirements for nurse call systems with a more technical focus on installation requirements. In addition, the only guidance provided for call cord length is for psychiatric hospitals, geriatric, Alzheimer’s, or other dementia units where the length is limited to six inches. All other locations should be assessed by the organization to determine an appropriate height for patient use and patient safety. [EC.02.06.01]
The group also enjoyed a boat ride to Cabbage Island located in Boothbay Harbor. The end of program year excursion has become a tradition in the Pine Tree State.

In the photo, Mike Connolly of Mercy Hospital in Portland is ready for the feast.

Erik Lahr—A Reflection from the Vermont Healthcare Engineers Society

One of the great things that I love about belonging to Vermont Healthcare Engineers’ Society and NEHES is that you see involvement from people representing all different facets of hospital construction, safety and maintenance.

When you have diverse groups like this assembling for meetings and educational sessions you get some great idea generation and everyone can return to their organizations and improve the hospitals that they serve.

In Vermont we had a particularly great and diverse educational session in May. The topic was compliance with USP 797 and 800; the regulatory standards for compounding pharmacies. We saw a great opportunity to tailor the presentation not only to facilities engineers, but also to pharmacists, environmental health and safety personnel and representatives from the VT Board of Pharmacy.

Pharmacy and health and safety staff were in attendance from many Vermont hospitals. Members of the Board of Pharmacy attended and also presented.

We had a great educational session from Fitzmeyer & Tocci, ATC Group, the VT Board of Pharmacy and the folks from Copley Hospital; who recently upgraded their pharmacy to meet USP797 and 800 standards.

When I think back on this meeting I realize that this is what belonging to VHES and NEHES is all about; putting together interesting and relevant educational sessions in order to improve our organizations. We worked hard to make the May meeting educational to appeal to a multidisciplinary audience, and because of that we had people from a wide spectrum of departments in the room.

And we all know very well, when many departments in a hospital can work together toward a single goal, the synergy can improve what we do and, ultimately, benefit our patients.

Website Upgrades

If there is one thing for sure in the world of websites, it is that things are always changing.

And nobody knows this better than Ron Vachon, the NEHES Website Chair, from Maine

“We have recently done some upgrades to the site always trying to improve the look and navigation,” said Vachon. “We don’t want things to get static.”

Vachon explains that the industry is moving away from blog type websites to more visual interaction. There are also new developments designed to accommodate the various viewing devices that people use to access websites. (Interestingly, most NEHES members still access the website through a desktop PC as opposed to Smartphones, Kindles or tablets.)

The Home Page now opens to a section with the more popular categories including events, education, news, state chapters, sustainability and supporting members.

“Our supporting members will easily be able to access the list of sponsorship opportunities for our Spring Seminar, Fall Conference, and for year round promotional venues,” said Vachon. “For members’ convenience, we now have a list of all of our supporting members so that their goods and services can be accessed.”

Need A Scholarship to Advance Your Career?

Are you looking to advance your career by furthering your education? Why not consider applying for a NEHES scholarship to help pay for those expenses?

NEHES is pleased to offer scholarships to Active Members who are pursuing a degree or ASHE-sponsored education. Scholarships are awarded on a rolling basis until all funds have been allocated. The maximum amount each year that may be awarded for an active member scholarship is $2,000.

For information on scholarships, contact - Milt Dudley at mdudley@emh.org 207.861.3394.

You can also complete the scholarship application from the online link at nehes.org/wp-content/uploads/2014/05/Active-Member-Scholarship-Application-2016-1.pdf

State Chapter News

We are eager to have information about what you are doing in your state chapters. On the NEHES website, there are pages for state chapters where you can share info about upcoming events, provide information to prospective members, and share info about your successes and accomplishments.

We will also, where appropriate, share your state information on the NEHES Facebook Page and the NEHES LinkedIn Page that now has 389 members.

To provide info for your state chapter web page, go through your Chapter Representative who will send info to both anandseth004@gmail.com and neheseditor@gmail.com

Maine Chapter Starts Program Schedule at Compass Healthcare Facilities Symposium

The MHES will be kicking off the 2016-2017 schedule with its first meeting being held at the upcoming Compass Healthcare Facilities Symposium, hosted by WBRC Architects Engineers, taking place on Thursday, September 8, 2016, at the Portland Marriott Sable Oaks, South Portland, Maine.

Registration is free of charge for this one day event. The theme is Health Tech 2.0: Leveraging Technology Today, Tomorrow, and Beyond. This year’s speakers will address how to plan for and implement new technologies in the context of limited financial and human resources.

Info and registration can be found at compass-symposium.com. The Chapter is working with ASHE to secure CEU’s for all those facility managers attending the event.
**NEHES Newsletter**
Volume LV II #3

**New England Healthcare Engineers’ Society:**
Founded in 1958; Affiliated with the American Society for Healthcare Engineering (ASHE)

**President**
Jona Roberts, SASHE, CHFM
jona@nehes.org

**President-Elect**
Alison Brisson, CHFM
Alison.w.brisson@hitchcock.org

**Secretary**
Wes Pooler, CHFM
Wes.pooler@uvm.health.org

**Treasurer**
David Rosinski, CHFM
David.Rosinski@baystatehealth.org

**Immediate Past President**
Paul Cantrell, CE, CPE, CHFM
paul.cantrell@lahey.org

**Newsletter Chair**
Anand Seth
anandseth004@gmail.com

**Website Chair**
Ron Vachon, SASHE, CHFM, CHEC
rvachon@stmarysmaine.com

**ASHE Region 1 Director**
Ed Lydon, MS, SASHE, CHFM
elydon@nhs-healthlink.org

**Administrative Director Office**
Michele Deane
Michele@NEHES.org
Jack Gosselin
Jack@NEHES.org

**Newsletter Editor**
Dan Marois
neheseditor@gmail.com

---

**Events & Dates to Remember**

- **September 15, 2016**
  *Life Safety Webinar Series>>*
  CMS Adoption of the 2012 Edition of NFPA 99 and What It Means for Health Care Facilities
  Noon—Central Time

- **September 25-28, 2016**
  NEHES Fall Conference
  Mountain View Grand—Whitefield, NH
  Organizers: New Hampshire Society of Healthcare Facility Managers—

- **October 23-29, 2016**
  National Health Care Facilities and Engineering Week
  www.ashe.org/engineeringwk/index.shtml

- **March 12-15, 2017**
  2017 International Summit & Exhibition on Health Facility Planning, Design, & Construction—Orlando, Florida
  ashe.org/PDC/index.shtml#.V6zQbo-cGUk

- **March 31, 2017**
  NEHES Spring Seminar
  Doubletree by Hilton- Leominster, MA

- **September 24—27, 2017**
  NEHES Fall Conference
  Sheraton Hotel
  Burlington, Vermont
  Organizers: Vermont Healthcare Engineers’ Society

- **August 6–9, 2017**
  54th ASHE Annual Conference and Technical Exhibition—Indianapolis, IN
  ashe.org/annual/index.shtml#.V6zQtY-cGUk

- For full list of **ASHE Calendar of Events**

**NEHES Time Travel—2006, 1996, 1976**

**August, 2006—** Larry Labor, the man behind the co-generation project, lit the furnace at North Country Hospital (Newport, Vermont) on June 29, 2005, making the hospital most likely the first in the nation to use woodchips to produce both heat and electricity.

**August, 1996—** John Wright (left) Cheshire Medical Center, Keene, NH, gets more information from Ron Cote, Principal Safety Engineer with NFPA.

**August, 1976—** The newly created Vermont Hospital Engineers Society will hold its first election of officers on September 8, 1976 at the Holiday Inn in Waterbury, Vermont at a meeting jointly sponsored with the Technical Services Program.

The opinions expressed by authors do not necessarily reflect the policy of NEHES.

All material in this newsletter is provided for information only, and should not be construed as professional advice. Please consult with your own professional advisors.