Fall Seminar & Annual Meeting To Be Held In Northfield, Mass.
September 16, 17 & 18, 1970

This year, the Annual Meeting of the N.E.H.E.S. will be held at the Northfield Inn, located in the beautiful foothills of the Berkshires.

This is the first three (3) day meeting for our Society and it promises to be a very informative one. Our speakers have all been carefully selected and are qualified to speak fluently on the subjects to be presented.

Included in the three day schedule, is a tour of the Northfield Mountain Pumped Storage Hydroelectric Project, a major engineering venture. This should prove to be of great interest to all Engineers in attendance.

Your Executive Committee has been very fortunate in obtaining special rates at the Northfield Inn for the N.E.H.E.S. Meeting. Incidentally, for those who wish to extend their stay at the Inn beyond our Meeting dates, it is recommended that they check at the Registration Desk on the day of their arrival.

WELCOME ABOARD

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Bridgeport, Connecticut

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$2,000 AWARD FOR IDEA

Floyd W. Reed, an official at the Connecticut Valley Hospital in Middletown, recently received the largest monetary award given by the State of Connecticut to one of its employees.

The $2,000 gift was made to Reed, Supervisor of Plant and Maintenance, for his role in suggesting a new electrical system for the Hospital which has saved $30,000 this year and $12,000 annually, thereafter.

Reed joined the Hospital Staff in 1957 as Building Mechanical Supervisor.

The development makes more efficient use of electrical power and has allowed the Hospital to benefit from its contract with the Hartford Electric Light Co.

The size of the gift is based on the tremendous savings that the new process will allow, officials said. Reed's system is considered applicable to other areas.
Corrosion of air conditioning ductwork has been a problem for many hospitals ever since air conditioning was introduced in such institutions. The problem has been compounded by the necessity for and method of, maintaining a high relative humidity in operating suites and similar areas, coupled with the necessity for maintaining exceptionally clean air in these areas. Up until quite recently, humidification systems caused extreme corrosion in ductwork downstream from any filtering, which rust then carried directly into occupied areas. At Hartford Hospital, the problem became so acute as to dictate emergency corrective action.

We are a 1,000 bed hospital, the main building of which was occupied in 1948. The nineteen operating rooms are located on one floor, and this entire floor is air conditioned, and humidity held at 55% by means of air handling equipment centrally located. (Likewise, another floor, 5 years older, contains six delivery rooms and premature nursery, with the same problem and same solution.) Humidification is obtained with a spray chamber in this central location which saturates the air at a constant temperature, after which reheat coils control final room temperature. The basic problem was that of moisture-laden air corroding the ductwork over the years to the point where sections of duct were almost completely rusted, and even sound sections contained sufficient surface rust to periodically flake off and enter the operating suite.

Sections of the galvanized ductwork in the equipment room were replaced some years ago with copper, but this proved no real solution since copper offers its own products of decomposition in a moisture-laden atmosphere.

To replace the jungle of ducts throughout the building was considered most impractical not only from the cost standpoint, but because of the necessary interruption of business, which could have been more expensive than the duct replacement. Each room had its own duct, and the ducts were bundled together and wrapped with insulation as a unit, so that to replace one meant replacing many at one time, and the maze of piping, etc., surrounding them created a nightmare.

With a new wing at least four years away, at which time we might be able to vacate and undertake this tremendous replacement task, we desperately needed an immediate, if not permanent, solution.

Our solution was mylar, one of the toughest of plastics, practically unaffected by moisture, air and age, and rated practically non-combustible. Severe bends and transitions in the ducts were replaced with stainless steel, a fraction of the effort of changing all ductwork, and a mylar tube was pulled through the straight sections, fastened at both ends to the new stainless, and inflated to adhere tightly against the duct interior. The result was a fully-lined duct between stainless sections, smoother than the original, no interruption of business, and at a fraction of the cost for replacement. While our intent was a temporary solution until we could vacate the area to do the full replacement job, after almost a year's experience on some sections, it appears that this material may last indefinitely, since it adheres tightly against the walls with no flutter, and is subject only to the effects of air and moisture.

(Continued on Page 4)
NEW CONCEPT IN AIR CONDITIONING

Springfield Hospital Medical Center has temporarily installed a 130 ton capacity, York Open Turbopak Liquid Chiller which will air condition its entire East Wing, consisting of six floors with a square footage of 44,746 feet.

The temporary unit, weighing 4 tons and being 7 feet high and 12 feet long, is housed in a trailer adjacent to this wing. This concept of trailer installation has eliminated the necessity of expensive construction and will provide simple disposition of the unit when desired. The installation took three weeks, and the Hospital is the first York customer to purchase a unit of this size to be put in a trailer.

4" rubber hoses were used instead of the conventional welded steel piping and fittings to connect the new chiller with the existing piping for chilled water and condenser water to the tower. The unit is twinned with a 60 ton chiller in the basement of the East Wing.

HOME OF THE 130 TON CHILLER

Pictured above are William J. Rice, Asst. Plant Engineer at Springfield Hosp. Med. Center, & Fred Kahn of the York Co. showing the unusual manner in which the Hospital's East Wing is being cooled.

Springfield Hospital Medical Center is in the process of constructing a new North Wing. Upon its completion, permanent absorbers will be installed which will cool not only this new wing, but the East Wing as well. The permanent home of these absorbers will be the Hospitals Boiler Plant, which is currently undergoing an expansion program.

Dennis Desmarais, Mechanical Engineer at Springfield Hosp. Med. Center, is shown charting Data from the temperature and pressure gauges.
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A/C DUCT WORK  
(Continued from Page 2)  
And if the day does come when replacement is necessary, very little money will have been lost, since the major cost was the installation of the stainless bends and transitions, which will still be there ready to be attached to new ductwork.

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CONTRIBUTIONS TO THE NEWSLETTER  
Support your organization by submitting your thoughts and ideas in the form of editorials and pictures to the newsletter. This is our best notification to other organizations of the efforts being made by New England Hospital Engineers. The invitation is open; any submittal is appreciated.

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