



New England HOSPITAL ENGINEERS SOCIETY Newsletter



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SHERATON PLAZA HOTEL - SITE OF ANNUAL N.E.H.E.S. MEETING ON MARCH 28, 1972

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Tuesday, March 28, 1972 is the date of the annual Spring Seminar to be held at Boston's Sheraton-Plaza Hotel. The program will include a talk in the morning session by Mr. David J. Murphy from Boston Edison on "Electric Power Supply to Hospitals from Utility View" and a panel discussion with Richard Stockwell serving as Moderator, William Harney, Lou Hough and Vincent Gardner, panel members, in the afternoon session. It promises to be an interesting and enlightening meeting so be sure to plan not to miss this one! In fact, make your reservations now — don't delay. Our Executive Committee is contemplating a late May or early June Seminar on Hospital Construction in the Boston area. More information will be forthcoming at the Spring Seminar.

WELCOME ABOARD

MILLARD E. LEIGHTON
Maintenance Superintendent
Parkview Memorial Hospital
Brunswick, Maine

EVERETT R. BOOTH
Plant Engineer — Providence Hospital
1233 Main Street, Holyoke, Massachusetts 01040

JOHN HARRINGTON
Assistant Engineer — The Miriam Hospital
164 Summit Avenue
Providence, Rhode Island 02906

PERCY R. DOW
Chief Engineer — Porter Hospital, Inc.
South Street, Middlebury, Vermont 05753

KNOW YOUR SECRETARY

ANDREW J. TRIANO

Plant Manager — Newington Childrens Hospital
Newington, Connecticut 06111

Born in Southington, Connecticut and upon graduation from Southington High School, Mr. Triano entered the U. S. Army as a tank driver . . . wounded twice and the recipient of the purple heart with clusters. After being discharged in 1946, he became an electrical estimator for various contractors in the New Haven area and while in this capacity, attended the now University of Hartford and received a certificate in electrical engineering.

Andy also attended Central Connecticut Teachers College, taking a course in Vocational Education 43 and 44, and received a certificate to teach in technical schools — and did teach, on a part time basis, in various technical schools in the State. He went to work at Scoville Manufacturing Company in 1948, where he became an Electrical Supervisor and received his Electrical Contractors license from the State of Connecticut.

Mr. Triano came to Newington Childrens Hospital in 1950, and during his twenty-one (21) years there, came up from licensed electrician to mechanical supervisor to Plant Manager in 1963. He is also Chairman of their very active Fire & Safety Committee which has won an award from a local insurance company.

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He took a very active part from the designing stages to completion of an over 10 million dollar building program and large renovation programs at the Newington Childrens Hospital.

Andy has attended numerous Hospital Engineers' seminars; is American Society of Hospital Engineers representative for the State of Connecticut and is a Past President of the Connecticut Hospital Engineers Society. He has served on the Park Board in Southington and six (6) years as board member of the Board of Education, and was liaison officer for the Board for all construction programs for the school system.

He is married and has one daughter.

MICRO WAVE vs THE PACEMAKER

A recent article published in the journal of the American Medical Association points out the dangers of micro-waves to people who are wearing implanted pacemakers. It was learned that in some cases when patients with implanted "demand pacemakers" came within nine (9) feet of a leaking microwave oven, they often became dizzy and confused or even lost consciousness. The reason for the effect is that the microwaves leakage had activated the pacemaker by confusing it. This stray radiation is sensed as a change in cardiac rate by the pacemaker and the pacemaker begins to set up a cardiac arrhythmia which will cease if the patient moves away, but if he remains in the radiation area, chances are that serious or even fatal damage will be done.

It has also been found that "demand pacemakers" can be disturbed in a similar fashion by the radiation energy from diathermy apparatus or from a high frequency color television.

HORSEPLAY

As a prank, two nurses poured a half pint of ether in the laps of two student nurses, ages 19 and 23. They did not see that one was smoking a cigarette. The 19 year old student nurse died of burns four (4) days later. The 23 year old student nurse died of burns seven (7) days later.

WHEN THE GREEN WIRE IS CONDITION RED

Can a properly grounded portable tool cause serious shock. Under certain circumstances – YES.

A man was using a grounded portable sander to smooth some patching plaster. He used an old indirect type floor lamp which was ungrounded and with a frayed wire which energized the lamp.

As he began to move the lamp while holding the sander, an accidental current began to flow from the shell of the lamp, through his arm, his chest area, his other arm, the sander shell, and finally through the green grounding wire, thus completing a circuit.

As the current surged through his body, he could not release his grip from either the lamp or the sander, or even open his eyes or stop his teeth from chattering. Losing consciousness, he fell to the floor. There he would certainly have died if he had not luckily fallen in a way as to pull the lamp plug from the receptacle. (National Safety Council Family Safety – Winter 1969)

LAUNDRY LINT HAZARD

A hospital fire resulted in considerable damage to an eight-roll flatwork ironer to which a "Feedmaster" had been added. Although the ironer was cleaned daily, lint had built up in contact with a heated roll to the point where ignition occurred. As a result, the ironer now is partially disassembled weekly to clean parts not normally accessible.

It is likely that the addition of the "Feedmaster" without redesigning the exhaust system resulted in air velocities too low to efficiently sweep the lint as it forms, and additional lint accumulation resulted.

Flatwork ironers should be inspected from time to time to determine whether lint is being removed from all sections of the machine. When accessories are installed, the air exhaust system should be studied to determine whether air exhaust velocities in the ironer and accessory will be sufficient to prevent buildup of lint.

REPORT ON OXYGEN TENT FAILURE

A cord reel on an oxygen tent failed recently at a Massachusetts Hospital. It appears that the contact assembly in the reel became short circuited to the case, causing an arc which melted a hole through two layers of metal in the case.

In regard to this incident, the following should be kept in mind:

First of all, the presence of oxygen appears to have had nothing to do with the problem. If an oxygen leak occurred in the system within the machine, there would be considerable danger of many parts flaring up, since the machine is in no way explosion-proof.

Secondly, with almost any cord reel type of device, it can eventually be expected to wear out, failing with either a short or an open circuit.

In the present case, the failure was accelerated by some or all of the following factors:

1. The cord reel was rated at 6 amperes – the machine is rated for over 7 amperes, and on start-up would be expected to draw several times the rated maximum on the cord reel.
2. The reel was mounted under the machine, where moisture and cleaning solutions could easily (and did) spill into the reel assembly either from a leaky seal in the machine, or from a drip-pan overflow.
3. The reel used inexpensive spring contacts, rather than carbon brushes.

RECOMMENDATIONS:

1. Cord reels should not be used.
2. All machines should be fused.
3. For greatest safety, machines using oxygen, or those in the presence of oxygen, should be explosion-proof.

SEVEN POINTS TO CONSIDER BEFORE YOU PURCHASE MONITORING EQUIPMENT

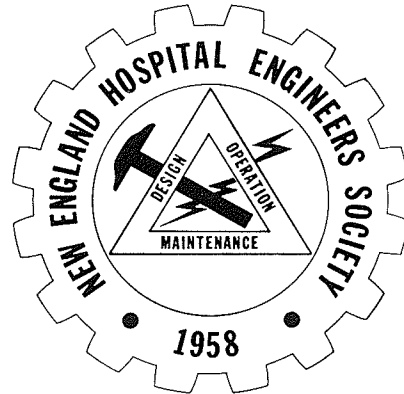
When considering the purchase of electronic monitoring equipment, the purchasing agent and the chief engineer should first cover the following points to everyone's satisfaction:

1. How much instruction will the manufacturer provide to the staff in the use of equipment? Will the manufacturer meet with all three shifts and come back to re-educate when there are major personnel changes?
2. How capable are the manufacturer's training personnel? Does the person who will do the training really understand the equipment and its use or is his knowledge confined to technics in selling?
3. Will the manufacturer adequately instruct the hospital's chief engineer or his delegate in trouble shooting and simple repairs? It is very upsetting to wait 12 hours for service to find out that a simple switch had not been set properly.
4. Will the manufacturer provide schematic drawings of the equipment if the hospital's personnel are capable of utilizing this information? It is unwise, to say the least, to depend upon a manufacturer to ship you a loan machine while you return your machine to the factory for any and all repairs. While in theory overnight delivery is possible between any two points in the country this is dependent upon good flying weather, no problems in trucking or cargo handling, and the absence of holidays. We have seen "overnight" delivery stretch to 10 days.
5. If the manufacturer uses "plug in" subassemblies, does he have sufficient product reliability information to tell you which subassemblies are most likely to cause problems so you can keep only the necessary spares in inventory?

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6. When vacuum tubes are used are they standard "off the shelf" commercial tubes or are they special or "matched" tubes that are more expensive and require longer delivery time?
 7. If the manufacturer uses a local or regional electronic service company you should investigate the service company to determine its experience with this type of equipment, its contractual obligation to service you, the speed with which it answers calls, and the hours and days it will answer calls.

(Modern Hospital – April 1968)



DUES NOTICE REMINDER

Dues for 1972 will be \$10.00 as approved at our annual meeting in Portland, Maine. Please make checks payable to Treasurer, New England Hospital Engineers' Society and mail to James Hanlon, Assistant Engineer, Kent County Memorial Hospital, 455 Tollgate Road, Warwick, Rhode Island.

Honorary members do not pay dues.

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.

WILLIAM L. FAGAN, Editor
Plant Engineer
Springfield Hospital Medical Center
Springfield, Massachusetts 01107

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