



New England HOSPITAL ENGINEERS SOCIETY Newsletter



VOLUME XVIII

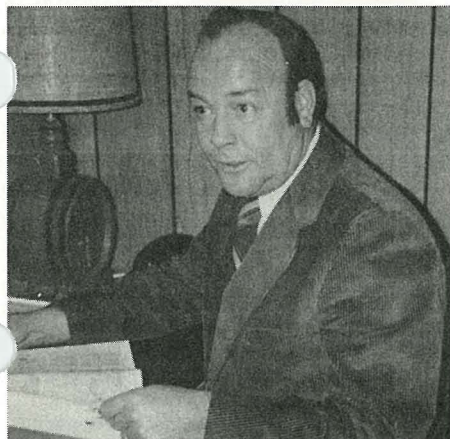
FEBRUARY 1974

NUMBER 3

SPRING SEMINAR — MARCH 26

IN CONJUNCTION WITH N. E. H. A. AT

SHERATON PLAZA — BOSTON



JAMES L. GLEASON

Co-Chairman for the Spring Seminar is James L. Gleason, Director of Maintenance at the Robert B. Brigham Hospital. Jim is a local boy, having been educated in the Wellesley Public Schools and Northeastern University, with some time given to the U. S. Marine Corps. Hired by a Boston Wool Firm, he was sent to the southwest part of Texas to help establish and supervise the formulation of a Wool Scouring Plant. On completion of the project, he was subsequently hired by the Pappas Company to direct their packaging division.

In 1963 he came to the Robert B. Brigham Hospital, and joined the New England Hospital Engineer's Society. Jim resides in Natick with his wife Paula and daughter Gail. An active town meeting member, he also served on a Committee to construct the Memorial Middle School in South Natick. He is an appointed member of the Trustee Council for the Leonard Morse Hospital and Chairman of a Committee to develop a Medical Office Building. Jim's adventures sometimes turn to mis-adventures, like last summer while participating in his favorite hobby, sailing, an incoming wave scuttled his sailfish and sent him heading for the open sea without a centerboard. But everything turned out fine, as I'm sure the Spring Seminar will with Jim at the helm.

MEET YOUR SECRETARY

RAYMOND A. KOWALSKI

Chief Engineer
Memorial Hospital
Pawtucket, Rhode Island

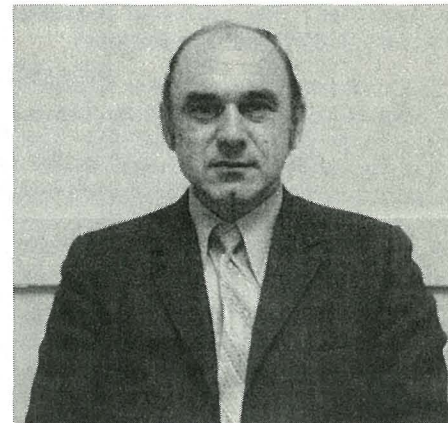
Born and brought up in Shenandoah, Pennsylvania (coal country). After service in the Navy during World War II, attended Pennsylvania State University, graduating in 1950 with a B. S. in Industrial Engineering.

Work background is basically in manufacturing. Relocated to New England from Philadelphia with Honeywell in 1957. Settled in Somerset, Mass.

Married wife Joan in 1952; have three boys aged 20, 16 and 9.

Has been in the hospital field approximately 5½ years, all at Memorial Hospital in Pawtucket.

When not working, involved in youth programs such as Little League Baseball (Manager and Coach), Junior Basketball (referee) and watching sport events.



RAYMOND A. KOWALSKI

"Energy — A New Situation"

We hear so much of an Energy Crisis today that we need to examine the literature to determine exactly what the situation is. The problem is twofold: supply availability and cost. A crisis, as defined in Webster's Seventh New Collegiate Dictionary, is the decisive moment. It is, therefore, obvious that we are not in a crisis situation. What is it then that we are in? Very simply stated, we are consuming more energy than we produce. This will continue to take place until we either reduce our consumption or increase our ability to produce. A third possibility is to increase our imports to take care of the insufficiency of our production. This looks like the only real solution on the surface, but it is so politically impregnated that it is not dependable. Since increasing our production of fuels could take a minimum of 3 to 5 years, this was not a logical answer for the short term needs.

We therefore immediately went to the reduction of consumption. We have all participated in Energy Management Programs during the past six (6) months. The programs need to be formalized into 1) Organizing Management Measures, 2) Conducting Energy Audits, 3) Set Energy Conservation Goals, and 4) Launch a Conservation Program. The question immediately that comes to mind is, why make a formalized program? In addressing this, remember that you are being and will continue to be asked what, in quantitative terms, are you doing about the problem. Without the controls of a formalized program, you will be unable to answer the questions and more importantly, you will not be able to measure your accomplishments with the goals established. How then would you know when and where to increase or decrease your efforts. With such great burden of time we all experience, our efforts must be controlled. The additional consideration here is the "Cost Containment."

Solid Waste Management is beginning to have an economic application because of the base cost of our utilities. Let's take, for example, a situation where a hospital generates on the average 5 tons of combustible waste per day seven days per week. By properly grinding and mixing this waste and burning it at a controlled feed rate, the waste can generate 8000 BTU/lb. A heat exchanger can convert this energy to steam, for example. A quick calculation can show that $(8000 \text{ BTU} \times 10,000 \text{ lbs.} \times \frac{1}{1000 \text{ BTU/lbs. steam}})$ the waste can be converted into 80,000 lbs. of 100 psi steam per day. This may look insignificant in the days of \$3.00 a

thousand pounds of steam, but this amounts to \$87,600 per year. The question we must ask ourselves is, can we overlook these economies. This article doesn't discuss recycling because to date we are unaware of any economically successful system that has either short or long term benefits to us.

Electric Emergency Power Generators is another area we need to look at. Why can't this approach be used for certain critical loads on an ongoing basis. The exhaust of the generator can be used to feed a heat exchanger and heat or cool the area it is generating electrical power for. Let's take, for example, a turbine generator of 800/cu. capacity. The unit's exhaust would be capable of generating 7000 lb./hr. steam at 12 psi. This is large enough to generate 300 tons of chilled water with a steam absorption system. This example doesn't mean to say that here is a way we all should go, but rather another area to look into when we look at Energy as a system. If nothing else is pointed out, the need to know what heat valve goes out of the exhaust stack from your generator and look to see if there are ways this can help you. Haven't you ever needed more steam during a power failure?

Heat balances were things that we did when we were in school and somebody else does for us in designing new facilities. Why aren't we doing them for on-line facilities? We are encouraged to look at our facility as a system and actually calculate the balance. Looking at Energy in this fashion will make it possible for us to designate the areas of largest unbalance and the real values of the unbalance. We will then be attacking the "problem" in the areas where the greatest effect can be realized with each unit of effort. Some unbalances can be readily corrected but we must realize that some will be a long time correction.

Issues and emphases change with the times. Today and for the foreseeable future, we must consider energy in every decision we make. As safety is everybody's job, so is Energy Conservation.

NEW HONORARY MEMBERS

Members who have been transferred to Honorary Membership

Floyd Reed
Robert Kellogg
Carlton Goff

ENGINEERING BOOKSHELF

Recommended Reading:

"Medical and Hospital Control Systems"

Engineering Bookshelf (continued)

by David A. Simmons
Little, Brown and Company, Boston, Massachusetts

"How to Develop Your Executive Ability"
by Daniel Starch
Harper and Brothers Publishers

"Principles and Methods of Sterilization in Health Services"
by John J. Perkins
Charles C. Thomas, Publisher, Springfield, Illinois

NEED YOUR ASSISTANCE

Our organization is making a major effort to contact Clinical Engineers and BioMedical Engineers in our Hospitals for membership. We believe this new area should be an important arm within our organization and our Board of Directors has requested that contact be made to them. There is no easy way to obtain lists, etc., so we solicit your help to determine who and where they are. If you know of one or more, let your State Representative know so he can make the proper contact. Thank you.

News from Massachusetts

Mathew W. Hanscop, Administrative Engineer at Lawrence General Hospital, Lawrence, Massachusetts. Retired on January 18, 1974. S. Forbes Rockwell, Assistant Engineer at Lawrence General Hospital, was promoted to Director of Engineering.

Joseph Hohmann, Jr. was transferred from the VA Hospital in Bedford to West Roxbury.

In October 1973, the Middle-Mac Engineers Society (Merrimack Valley Group) held elections. The results were:

President — Joseph Sheehy, Engineer
Bon Secour Hospital
Methuen, Massachusetts

Vice-President — Robert Barris, Plant Engineer
Lowell General Hospital
Lowell, Massachusetts

Secretary-Treasurer — John Crowley,
Plant Engineer
St. Joseph's Hospital

News from Maine

Hospital Engineers in Maine met at Valle's, Exit 8, Portland, Maine in November. General hospital topics were reviewed and energy savings were of prime importance. Meeting will be scheduled for Waterville in January and Ellsworth in May.

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PROBLEM CLINIC



Problem No. 1

Hospitals and physicians are being alerted by the Food and Drug Administration's Bureau of Radiological Health to potential hazards in the use of phototherapy in the treatment of hyperbilirubinemia (jaundice) in infants. The warning has been issued of the FDA's investigation of burns suffered by two infants exposed to fluorescent lights for treatment of the condition. The bureau has "strongly recommended that hospitals and physicians using phototherapy take steps immediately to shield fluorescent lamps with ultraviolet-absorbing filter materials made from plastic or ultraviolet-absorbing glass so that filter materials are between infants and the fluorescent source. It also urged use of opaque blindfolds to protect the eyes of new born infants from the intense invisible light from phototherapy sources. "A simple bandage has been found to be effective," the Bureau said.

Problem No. 2

You have an odoriferous condition at your trash storage area or maybe at your compactor or how about a sanitary line back up that is in an inaccessible area such as a crawl space or chase. You know that you have chemicals available to counteract the odor but need a means to dispense it over a prolonged period of time.

Solution No. 2

You may not realize it, but all hospitals have metering equipment just waiting for us at our trash holding areas. This is the T. V. solution bottle and disposable appurtenance. Could this be used to meter chemicals to control algae in our cooling towers? Could it be used to meter a lubricant to a pump or motor which has a failing bearing? Maybe until the operation is over and even then may be until parts are located.

Submitted by: Maurice J. Lemelin
Chief Engineer
Meriden-Wallingford Hospital
Meriden, Connecticut

PRESS RELEASE

It was recently announced that the University of Vermont will be part of a project to create a medical engineering service and education program for northern New England hospitals under a \$694,079 grant from the W. K. Kellogg Foundation in Michigan.

Other offices involved will be the office of Health Care Education, New England Hospital Assembly and New England Center and the Universities of Maine and New Hampshire.

The project will use already established programs at UVM and the University of Maine. The "Northern New England Clinical Engineering Program" will create a regional staff of technical engineers to service mechanical and electrical equipment used in patient care. The program will also develop training for in-house medical staffs and train technicians in the field.

UVM's Instrumentation and Model Facility project will serve as a partial base for the New England program. The UVM project included an engineering and technical staff which repaired and designed special equipment for the university medical school.

FROM THE EDITOR

We are attempting to have our Newsletter a more interesting communication device. We also plan to print three issues per year instead of the two. Our plan is to cover four basic areas: (1) technical information, (2) information regarding Board of Directors decisions and activities, (3) reports of seminars, and (4) notes of interest to the members. In order to provide this, very obviously, your assistance is needed. Please send your information to your editor, Mr. Norman B. Fischer, Director of Engineering, Yale-New Haven Hospital, P.O. Box 1001, New Haven, Connecticut 06504.

March 4, 1974 — Seminar at Carney Hospital

The speaker will be Mr. Alan Reed, a national authority on Electrical Safety. The program includes a slide presentation on the present requirements of Article 517 with special emphasis on the electrically susceptible patient. There will also be discussions on the probable requirements in the 1974 National Electric Code. The second half of the program will be devoted to Article 250 — grounding. The program will take place from 9:00 a.m. until noon. There is no fee involved.

If interested, please contact Walter H. Johnson, Director of Maintenance and Engineering, Carney Hospital, 2100 Dorchester Avenue, Boston, Massachusetts 02124.

\$1,542.80

WELCOME ABOARD!

STEPHEN W. DUNN

Plant Engineer
St. Mary's Hospital

DEXTER P. BOWEN

Engineer
Vermont State Department of Health
Burlington, Vermont

EDWARD W. KROONER, JR.

Assistant Director, Engineering
Yale-New Haven Hospital
New Haven, Connecticut

JOHN J. FINNIGAN

Project Coordinator
New England Medical Center Hospital
Boston, Massachusetts

ROBERT STEVENSON

Chief Engineer
W. W. Backus Hospital
Norwich, Connecticut

JOHN F. FOWLER

Manager, Plant Services
Doctors Hospital of Boston
Roslindale, Massachusetts

JAMES D. MYLEN, SR.

Director of Plant Operations
Milford Hospital
Milford, Connecticut

DANIEL C. MURPHY, JR.

Assistant Administrative Engineer
Beth Israel Hospital
Boston, Massachusetts

ROBERT G. NORTON

Safety Engineer
St. Joseph's Hospital
Providence, Rhode Island

HAROLD H. ROCKWELL

Chief Engineer
The Jordan Hospital
Plymouth, Massachusetts

ALBERT D. BARNARD III

Assistant Engineer,
Construction and Maintenance
Vermont Department of Health
Burlington, Vermont

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ASHE LIASON

Bill Fagan is our A.S.H.E. Liason. Keep him informed on matters you believe should be brought to the National Society. Bill informs us that he has been appointed to a committee regarding Joint Commission standards and another committee on safety. Send him any information pertinent as soon as possible. He will be attending the next Board meeting of A.S.H.E. February 19-20, 1974.

Send to:

William Fagan,
Administrative Engineer
Springfield Hospital Medical Center
Springfield, Massachusetts.

MEMBERSHIP MATRIX

State	Members	Institutions	Participating Institutions	% Participation
Connecticut	39	69	26	38.8
Maine	19	58	14	24.1
Massachusetts	110	213	77	36.2
New Hampshire	10	37	6	16.2
Rhode Island	23	24	11	45.8
Vermont	18	22	12	54.5
SUMMARY	239	423	158	37.4

FALL SEMINAR PLANNING

Set the time aside on your calendar October 9, 10 and 11, 1974 at the Sheraton-Wayfarer, Manchester, New Hampshire. Highlights being planned are topics on Hospital Construction, putting the Hospital Facility into operation, cost containment ideas, personnel training plus plant tour to the Budweiser Plant.

MEMBERSHIP DRIVE

Ralph Henry is chairman of our Membership Committee. He is making every effort possible to get applications to all those who should be in N.E.H.E.S.

YOU CAN HELP!

If you know of someone who isn't a member, invite him to join with us. Applications are available through Ralph M. Henry, Project Coordinator, Medical Center Hospital of Vermont, Burlington, Vermont 05401.