LOU ELY AND HIS PANEL DISCUSS SECURITY AT NEW ENGLAND ASSEMBLY

The President reported that he and Vice-President Gardner had worked out a program for the Society in conjunction with the New England Hospital Assembly for their meeting at the Statler Hotel in Boston on Tuesday, March 24, 1964 from 2:30 to 4:00 P.M. The subject is to be "Hospital Security and Control."

"Hospitals are usually cosmopolitan, democratic societies with freedom, mutual trust and respect among its people. This type of society makes the controls and discipline that go with security an awkward problem. An approach to solving this problem, and a practical examination of the many exposures to risk will be discussed. Administrators, Controllers, Personnel Officers, Plant Engineers, and other interested persons can gain a new insight into the perennial problem of security."

Instructor:
LOUIS B. ELY, JR.
Plant Engineer
Mary Hitchcock
Memorial Hospital
Hanover, New Hampshire

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SPRING MEETING

March 24, Hotel Bradford

The plans for the Spring Meeting have been completed and I am sure that your attendance will benefit you, and through you, your hospital.

The program committee has been able to secure good speakers with interesting subjects all designed to benefit you.

A successful meeting depends a great deal on scheduling and emphasis is placed on being punctual.

The meeting is timed to coincide with the Assembly Meeting in order to minimize expense and time away from the job. Don't miss this meeting. It is planned for you.

BY LAWS

The By-Laws of the NEHES have been revised and will be submitted for your approval at the Spring Meeting, March 24, 1964. There have been some changes and additions along with clarification and simplification. The committee feels that we are now up to date, at least for the present.

Your 1964 dues are due and payable. If you have not received your bill, drop a card to the Secretary, Warren E. Marble, Danbury Hospital, Danbury, Connecticut.

(Continued on page 3)
HOW TO WRITE SPECIFICATIONS

by LOUIS H. HOUGH

Assistant Administrator, Boston Lying-in Hospital

There is nothing new or startling in the word "specification." What is the purpose, then, of having a specification? No matter how small a job may be, the work to be done must be described before it can be started. Even a drawing of a table cannot tell how it is to be built or of what quality of materials. Some kind of further description is needed beyond the drawing, and this is your specification. If it were possible to describe specification in one word it would be "what." A specification says what is to be built, and sometimes "how."

A drawing showing the elevation of one side of a building, for example, may show a section with the word "brick" on it. The drawing cannot show such details as the kind, color, make, size, number to the foot, or thickness of the mortared joint, because there is no room. Therefore, there is a section in the building specifications probably entitled "Masonry. In it is a part called "Brick." It will be stated in that part that on the west wall, all exterior brick shall be a buff color as manufactured by XYZ Brick Co., laid in Flemish bond, so many bricks to the running foot, etc., in the most minute detail, so that there can be no doubt about what the owner expects that brick wall to look like.

What is the content of a specification? What are logical items to include in a specification? It could be said that everything to be included in the job which is not shown, or not completely shown on the drawing should be part of the contents of a specification. The whole job is contained in the drawings and the specifications. Mention of anything in either the drawings or the specifications includes it in the job. Sometimes it is contained in both, but if it is not shown in either, it is excluded from the job.

Generally, the first item in a specification is the General Conditions. These are the "ground rules" under which the owner and the builder are going to work. Here will be stated the terms of the contract. Often, the American Institute of Architects printed forms will be used. These are very inclusive, the product of years of experience, and will contain provision for most contingencies. Such matters as arbitration, ownership of drawings, right of owner to perform work, right of owner to stop work, insurance coverage of both owner and contractor, bonding of subcontractors, performance bonds, instructions to bidders, and penalties for nonperformance or tardy performance will all be stated. Usually, it is necessary to add a supplement to the general conditions section to fit the particular job in hand. This will contain special items such as access to work, requirements of owner to continue occupancy, reasonable interference with normal activity of the premises, and necessary overtime work to avoid unreasonable shut-downs.

A random sampling of the items contained in a specification, without any attempt to place them in order, will contain these subjects:

- Methods of construction
- Brands, sizes, and models of equipment
- Materials
- Mixing methods
- Scope of the work
- Terms of contract
- Governmental participation
- Statements of authority
- Arbitration procedures
- Penalties
- Insurance
- Certificates for payment
- Conformity with codes
- Permits, and payment therefor
- Building details
- Masonry
- Metals
- Framing
- Plumbing
- Electrical fixtures
- Wall covering
- Plastering
- Mechanical trades
- Roofing
- Time limits
- Subcontractors
- Preparation of the site
- Drainage

Certainly no one person could have such a complete command of the process of construction as to be able to sit down and write up all this material, but it is possible to reuse specifications of earlier jobs. If these are appropriate for the job in hand, and if they fit exactly the present intent of this owner, it is perfectly good practice to copy other specifications. The danger in doing this is that something will be included which is not desirable for the new job or

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New England Assembly
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Panelists:
Mr. Everett C. Benoit, P.E.
Administrative Engineering
Rhode Island Hospital
Providence, Rhode Island

Mr. Joseph Degen
Assistant Director
Mass. General Hospital
Boston, Massachusetts

Mr. George M. Lallas
Director
Abco Research Bureau, Inc.
Lowell, Massachusetts

FOOD FOR THOUGHT

OFTEN — When the other fellow takes a long time, he's slow — but when you take a long time, you're thorough.

OFTEN — When the other fellow does something without being told, he's overstepping his bounds — but when you do something without being told, that's initiative.

OFTEN — When the other fellow pleases the boss, he is polishing the brass — but when you please the boss, that's cooperation.

OFTEN — When the other fellow gets ahead, he's getting breaks — but when you manage to get ahead, it's hard work.

THERE'S ALWAYS A REASON

February 17, 1964

Dear Mr. Administrator:

I think that dogs should be allowed to come in the hospital, if they are wrapped up or in a basket. They must have all their rabies shots and have a tag and note from the veterinarian that the dog has had her shots.

The reason for this is the master gets lonesome for the dog and the dog gets lonesome for its master. My daddy is in your hospital. Our dog is a well mannered, short haired begal.

My address is:
17 Leggs Hill Road
Marblehead, Massachusetts

Yours truly,
ELLEN HOFFMAN
Age 11

Legally the husband is head of the household and the pedestrian has the right-of-way. Both are safe as long as they don't try to exercise their rights.

LOUIS B. E.I.Y., Jr.
(Continued from page 1)

last two years they have been in Worcester) Lou has had to come down from Hanover, New Hampshire the night before in order to be on time for a 10 A.M. meeting. If he misses, there must be a darned good reason.

Lou has a great regard for his profession and from all appearances, is sold on his job. Lou is a deep thinker, always one to ask why.

He has contributed many articles to the Newletter and given many papers at the various seminars, as well as being a source of information on scores of subjects.

It will be well worth your while to sit in on the session at the assembly on Security.

Lou doesn't use flowers, he uses facts.

ENGINEERS' BOOK SHELF


This handbook could well be used by many departments in the hospital but would fit much better on your bookshelf.

It is a quick reference to basic data on all kinds of industrial materials. It supplies general information with the most commonly used comparative figures on materials in their group classification in order to give a more specific understanding of commercial applications.

Relatively little perceptive reading will soon fix in the mind important points of relativity on strengths, hardness, weight, degrees of screen fineness, organic compositions and other matters that will make the path easier for a ready judgment of any new material that may come to one's attention.

One day a lion came upon a bull wandering in the jungle. He pounced upon the bull, killed him and ate him. He felt so good afterwards that he began to roar. He roared so loud a hunter heard him and came into the jungle and killed the lion.

Moral: When you're full of bull, keep your mouth shut.
How to Write Specifications

(Continued from page 2)

something that was necessary only on the other job. It would be a mistake to use an old specification for terrazzo flooring that included white and green marble chips in a decorative color scheme for a dining room floor as a flooring specification for a basement store room where smooth concrete would be both desirable and adequate. The penalty would be excessive cost and unnecessary consumption of time.

Manufacturer's Specifications

Manufacturers will gladly furnish free specifications for their products. The inherent danger of this practice is that their specifications tend to promote their own product. If any of similar products gives equal satisfaction and one wants the least expensive item, copying the manufacturer's specifications would be risky. The contractor could fulfill his obligation only by furnishing that one brand, and then the element of competition would be lost. So, too, might any savings. It would be better, under these circumstances, to name all three brands as being acceptable, or name one as typical with the words "or equal" as alternates. If door closers are being considered, and the specifications writer has no objection to any of brand A, B, or C, the specifications could mention all three, and the contractor could offer the one on which he could make the most money. If, however, the existing building is equipped with brand A and there is good reason to establish continuity and to reduce inventory of spare parts, then that brand can be specified. All bidders will then quote on brand A closers, whatever they may have to pay for them.

When the words "or equal" are used, they usually follow a particular brand name. Thus, "brand A or equal," might be specified if it did not matter what brand was furnished, as long as it was a good, reputable make. In such a case, the owner gains the advantage of competition because the bidders can shop for the brand on which they can get the best price, and the owner may get his closers for less money than if he had insisted on one make only. It is necessary to state, however, who will determine that the alternate is equal. Usually the owner or architect is designated as the judge.

If other specification sources fail, it may be necessary to go to the person who wants the final product—the owner. He should be able to tell what he wants: how big, what will it be used for, what should it be made of, why he wants it, how often it will be used, or why a standard item won't be acceptable. The owner is both the first and the last resort for the contents of the specifications. The writer may be able to guide his choice in one direction or another, but the owner wants the job and is going to pay for it. He should have the selection of what goes into it.

The size, cost, complexity, purpose, builder, and design of the project all affect the form of the specifications. If we want a small table built for the X-ray department, we can tell the carpenter in the maintenance department what kind of a table we want by giving him a verbal specification and drawing a sketch. These should be a sufficient set of specifications for that job. If the carpenter follows those specifications, the table will be what X-ray wants, and it will cost as much as expected. It will be done on time, and the job will be completely satisfactory. If, however, the job to be done is a six-story building completely equipped as a research laboratory, obviously a simple verbal specification is not going to suffice. Because an outside general contractor must be employed for the job, and the cost of construction will be considerable, the specification must be sufficiently detailed, complete, and precise so that the owner gets what he wants as economically as it can be built in the time available. The specifications for this job will eventually be a rather large volume of printed and written sheets of paper. Form is important here. The experienced specifications writer will find his way quickly and accurately in the written material by following a standard form. He can look up the item or items in which he is interested, and be sure that when he finds it, he has all the information required to describe it.

Logical Sequence

Besides the general conditions and the supplementary general conditions, there will be an index. This lists the headings which are to follow, and one of the early evidences of logical sequence appears. One of the first steps is clearing the site, which may involve demolition or excavation before the foundation is built. Thus, "Concrete" will be among the first items to follow the roothing conditions. The index will list the titles of the sections in roughly the sequence of the events that occur in the building process. It would be likely that "roofing" would appear after "steel structural." Exceptions—such as "roofing" and "dampproofing"—would be possible when one particular trade has functions both early and late in the building procedure. The foundations and basement floors might be waterproofed by the same subcontractor who does the roofing. In such a case, either the two processes would be covered in two different parts of the specifications and the subcontractor would have to look in two places to find his work, or the two specialties would be lumped together in one place, even though roofing would then appear illogically right after dampproofing of the sub-basement walls.

The same sort of sequence is followed within each section as that set up for the whole specification. The first paragraph is a small set of general conditions for that particular trade. The second paragraph makes reference to certain documents or drawings by name and number, which will illustrate the applications of the work exactly where and what sort of work is to be covered, and how it fits into the whole job. Next is the schedule and the relationships with work of others, be they the owner or other subcontractors. Thus the form of the specifications, as well as the form of the parts, is an aid to those who use it. Even the numbering system assists, where the whole number represents the trade section in which it appears, and the decimal shows where in that trade section the appropriate paragraph may be found.

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