

Standards & Codes

Standards and codes interact extensively with the weld quality, inspection and testing. In implementation of standards and codes, updated awareness is often called for. The significance of the requirements of standards and codes need to be correctly understood to interpret, to use discretions, to inspect, to conduct tests and analyse test results to arrive at the right & agreed conclusions.

Standards & Codes—a new feature is opened to update awareness and for the members to participate by sending us write ups, clippings & cartoons, comments & views, A few examples of the kind of write ups we would like to include, are given in this issue.

—Editor

What is a Standard ?

Webster states that the word 'standard' originated from a Teutonic word meaning banner. More specifically, the word was associated with the emblem or figure displayed on the banner. For example, an eagle was the standard of the Roman legions. Thus, a standard was the symbol of an army or emperor having authority over a soldier or peasant.

As agriculture and industry developed and the need for commonly accepted units of measure, value and quality became evident, the rulers established the necessary standards by royal decree. Later, as representative forms of government replaced monarchies, needed standards were established by common consent. Whether established authoritatively or by agreement, the standards were intended to provide the common basis which is essential to commerce. Thus, a good definition of a standard is : a preferred solution to a common problem.

—ISI Bulletin

Standardization all the Way

Each firm in Japan is guided by one supreme principle, namely, to do exactly whatever is being done by

top firms in the industry, according to 'The Incredible Japanese', a book written by M. K. Rustomji and S. A. Sapre. This, the authors say, leads to standardization.

Another example of standardization quoted in the book relates to newspapers. There are three leading daily newspapers in Japan, each having a circulation of over five million, but in appearance they all look alike. Even the contents are standardized.

Yet another striking example is that of the lunch sold at railway stations. The small luncheon box invariably contains small pieces of fish and beef, baked or fried, seasoned with sauce; omelettes ; well-cooked seaweed and vegetables ; cucumber or radish pieces ; and a sliced piece of an apple or orange. These occupy about half of the box space. The rest is filled with cooked white rice. The quality of the foodstuff may vary from place to place but the ingredients remain identical.

This type of standardization is, in fact, said to have been noticed in very many fields.

—ISI Bulletin

Standards and Creativity

It is sometimes said that engineering standards stifle creativity.

What is meant is that use of a standard part or material will prevent the development of a new part or material which would be technologically superior. This may or may not be true. In its truest sense, a creative idea must be novel ; it is not concerned with alternatives which any good engineer can conceive. The creative idea is an unanticipated approach to a problem. The creative person does not solve problems—he circumvents them.

Thus, the relationship between a standard and a creative idea is analogous to how a person travels to a distant city for which a standard highway route has been prescribed. If the trip is to be made by automobile, it is to the driver's advantage to follow the standard route which avoids detours and gravel roads, has the necessary route markers, and passes an occasional service station. But if he decides to make the trip by airplane or boat, obviously the standard should not or could not be followed.

Standards should not stifle creativity. They should limit uneconomic or unnecessary design variations. The creative engineer does not look upon standards as obstacles. He is more likely to regard standards as design aids than the non-creative engineer.

His efforts will be concentrated on those problems which cannot be resolved with existing standards.

—ISI Bulletin

Codes for Preheating—the welder

When you see, someone is doing what you insist on—you feel happy.

Such was the source of cheer on the Surveillance man's face, when he saw this pale-looking man holding a gas torch and apparently preheating a base plate to be welded.

He always liked to listen to people who obeyed him and so, patting the pale-looking man enquired what was going on.

The pale-looking man shrugged and said that the welder asked him to hold the torch till he (the welder) comes back having his tea.

Before he could recover from the response, he saw the welder coming towards him and thought he should have talked to the welder.

And so he asked the welder, "How long do you preheat." With a tone that normally answers quite-an-

unwanted-question, the welder said, "Till the inspector comes."

The answer seemed all right, but just for a moment only—"But why wait for the inspector?" came the next query.

This sounded too stupid for the welder. Visibly annoyed, the welder replied—"How else would you measure the temperature when the thermal chinks are with the inspector?"

—Adapted from *Weld Laugh* by A. Palanippan published in *DWE EKAM*, Mar-Apr. '85. *IIW-Tiruchirapalli.*

Welding Spatter,

"It is people who matter, not just the high cost fully automated technology. Technology yearn to have the latest, but it won't work unless people want to make it work. The success in Japan and the failure in U.S.A. of the MIG based Narrow Gap could be traced to human work ethics. While India was also following the steps of the Japanese like U.S.A., the people of India exhibited an oriental work ethics which gave them a definite edge over their counter parts in U.S.A."

—Dr. Glenn. W. Olyer, Executive Director,
Welding Research Council, U.S.A.

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