

1969 National Safety Congress

a decision shortly on whether the Bureau will undertake this additional responsibility. For the past two years, including today, there has been no monitoring of agricultural respirators in the United States.

Question: Are panel members advocates of (1) strong government laws and rules for industrial uses of respiratory protection, or (2) of voluntary use of respirators in industry?

Answer: The panel was polled, and five of the nine voted for option (1) four for option (2).

Question: Is the new respirator designed for protection against asbestos fibers a success?

Answer: The respirator developed by Johns-Manville is presently under field evaluation. One cannot answer your question at this time. However, the unit is light-weight

and expendable. I understand that the present evaluation study will consider acceptance and level of protection afforded under field conditions.

Question: What will be the actual effect of the new Z88.2 code on the use of respirators?

Answer: It will be mandatory for users of respiratory protective devices to carry out a comprehensive program, including determination of the hazard, selection of the proper device, training the wearer, maintaining the device, and carrying out medical surveillance, since standard becomes, in fact, a part of Federal health and safety regulations. Voluntary consensus standards such as this are considered to be part of new industrial health and safety regulations being issued by Federal agencies such as the U. S. Department of Labor.

SAFETY ASPECTS OF NUCLEAR GAUGES

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Nuclear gauges using radioactive isotopes were introduced in the early 1950's. These instruments are designed to provide continuous on-line information regarding process material thickness, composition, level, or density.

Prior to 1962, the industrial usage of such gauges was controlled by the United States Atomic Energy Commission. During 1962, a program was initiated to transfer this control to the individual states. At the present time 19 states have assumed this responsibility and are known as Agreement States. Licensing by one of these agencies is a prerequisite to the possession of a nuclear gauge.

In 1964, the Titanium Pigment Division of National Lead Company instituted a study to evaluate the process control capabilities of nuclear level and density gauges. This study has resulted in the installation of numerous nuclear measurement and control systems. Further, this study has established that the radioactive materials associated with these systems represent no health

hazard when they are used in conjunction with appropriate safety procedures.

The Atomic Energy Commission and the Agreement State Boards of Health place the responsibility for the formulation and implementation of such procedures in the hands of the user and evaluate the resultant safety programs via periodic inspection.

The radiation safety program developed by the Titanium Pigment Division of National Lead Company is the subject of this report. This program has been favorably received by the United States Atomic Energy Commission, the Canadian Atomic Energy Control Board, the Atomic Energy Technical Committee of the AFL-CIO and has been cited by the Prentice-Hall Publishing Company in their monthly *Personnel Management Report*.

As is the case with any potentially hazardous material, the characteristics of the material must be understood before effective safety measures can be formulated. The first portion of this report will deal with the characteristics of nuclear radiation and the basic principles of nuclear gauges. The