concentration for silicon dioxide, 5 million particles per cubic foot of air, was established by correlating industrial environmental conditions with physical findings of workers.[9] It is evident that more information is sorely needed, and with the development of new technics and instruments, such as the electron microscope, this information will be forthcoming.

In order to use maximum allowable concentrations in an industrial medical program, it is necessary to know how each was established. It is not the final answer to occupational disease control in an industrial plant, but with proper interpretation it can be a major tool. In all branches of medicine, a physician must make interpretations; for instance, without a history or a physical examination, a diagnosis of acute appendicitis cannot be made from a blood picture, but frequently the latter is the deciding factor in the diagnosis. It is just as necessary to make interpretations of maximum allowable concentrations in industrial hygiene as it is to evaluate laboratory results in clinical medicine.

Many variables must be considered in establishing maximum allowable concentrations. Recently Drinker and Cook [10] proposed that maximum allowable concentrations should be listed in zones of toxicity. They postulated that this would "extend the usefulness . . . and lead to a wider application." This suggestion is worthy of consideration. It is desirable to have precise standards, such as the ones promulgated by the American Standards Association, but it usually takes years to accumulate enough information. In the interim a tentative or working standard is needed. The maximum allowable concentration list of the American Conference of Governmental Industrial Hygienists, which is reevaluated annually, provides such a working list. Since maximum allowable concentrations should be subject to change when new scientific evidence is presented, they should not be included in basic legislation.

Present knowledge of the toxicity of beryllium is limited. Although reports of occupational diseases attributed to beryllium compounds appeared in the European literature in 1933,[11] the first reports of such cases in the United States were published in 1943.[12] Also in 1943 a rather extensive experimental study of the toxicity of beryllium compounds, made on animals, was reported, in which it was concluded that beryllium is of itself not toxic and that "whatever toxicity has been found to occur with the beryllium salts is due to the toxicity of the acid radical." [13]

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