

Chapter 3: Sound Measurement: Instrumentation and Noise Metrics

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Introduction

In industrial hygiene practice, noise exposure is measured to assess its potential detrimental effects on humans. Although hearing damage is the primary concern, other effects such as speech interference and annoyance are also of interest. Two categories of measurement are necessary. One provides data for predicting the potential effect of noise exposure on humans; the other provides data for engineering purposes directed toward mitigating hazardous noise exposures.

Mikroprocessors, computers, inexpensive mass storage, and mobile devices have led to a revolution in noise-measuring instruments, data processing, and data retention. Connections between health factors and potential stressors in the environment permit a deeper level of understanding of their relationship with health outcomes. Because of the miniaturization of equipment and

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