Noise Control—A Guide for Workers and Employers
US Department of Labor-Occupational Safety and Health Administration, Washington DC, (1980), 119 pp., 15.99 USD

As they say on TV, "This book is not available in stores." It is 37 years old! But it is available in many local libraries and is now available from the Noise Pollution Clearinghouse online. (www.nonoise.org/hearing/noisecon/noisecon.htm)

This review is to remind and inform younger readers, maybe who started work in the 1990s or so, of a book that might be of interest.

Noise Control—A Guide for Workers and Employers was edited and adopted by Matt Witt, a director of the American Labor Education Center based on a publication of the Swedish Work Environment Fund. The material is now in the public domain.

The book consists of five chapters after an Introduction, each briefly discussed below.

1 NOISE: ITS EFFECT ON HEALTH

This two-page chapter, as one would expect, is not a complete treatise on health issues, but, in clear terms, it discusses effects of loud noise on hearing and other possible adverse effects.

2 NOISE CONTROL: BASIC CONCEPTS AND TERMS

The six pages, which are a primer for the next two chapters, discuss, in a few paragraphs, "definitions" of sound, frequency, noise, and infra- and ultra-sound, and present concepts of the different noise spectra of common sources, decibels (without any of that fancy logarithm stuff), noise level measurements, addition of decibels (just graphically so anyone can understand it), octave bands, sound transmission and absorption, and propagation (in a free field).

3 APPLICATION OF NOISE CONTROL PRINCIPLES

The 83 pages consist of eight sections: sound behavior, sound from vibrating plates, sound production in gases, sound production in liquids, sound movement (a good way of describing propagation, which sounds a bit biblical, to the layperson) indoors, sound movement in ducts, sound from vibration machines, and sound reduction in enclosure walls. These sections include discussions of silencers, resonance surface radiation, changes, and vibration isolation, just a few of the many concepts. Each of the sections provides clear, nontechnical discussions and illustrations of the concepts.

4 NOISE CONTROL MEASURES

This eight-page section discusses general basics: change the equipment from noisy to quiet, improved material handling (do not drop stuff), enclose machines, vibration isolation and damping, sound insulation, good maintenance and designing for noise control before implementation of noise producers.

5 HOW OSHA CAN HELP EMPLOYERS AND EMPLOYEES

What to say here? In the beginning of this chapter, it presents the original OSHA 90 dBA limit and the 5-dB tradeoff. It does not refer to CFR 1910.95 specifically. It is interesting reading at least to get somewhat familiar with what the Occupational Safety and Health Administration's noise issues are. But lots have changed since 1980. It lists probably old and outdated OSHA offices and other information. And assuming the current administration in the US government does not abolish OSHA, it is probably best to find a more current reference.

I must confess that I am not an engineer and pretty new to noise and noise control, but this book (I have a hard copy) really helped me a lot in understanding principles and concepts. The discussions are easy to grasp and at least 50% of each of the book's pages is filled with easy-to-understand and explanative B&W figures.

I bet most "older" NCEJ readers in the USA have or have seen this book. For most readers of this journal, I suspect this book is pedestrian, but to have it available for spouses, partners or those who want to know about what you do or who want to try to solve problems, this can't be beat. And even better, it is available for free at many libraries or, even better, at the link above.

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