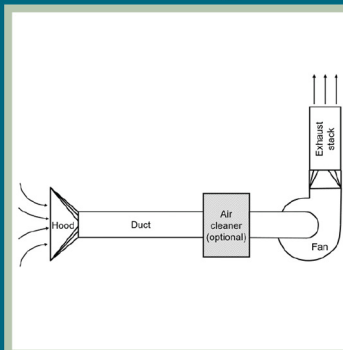


# MODERN INDUSTRIAL HYGIENE

## Volume 3

Control of Chemical Agents

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Control of Chemical Agents

Jimmy L. Perkins



# MODERN INDUSTRIAL HYGIENE

*Volume 3*

*Control of Chemical Agents*

**Jimmy L. Perkins**

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*School of Public Health*

*San Antonio Regional Campus*

**ACGIH®**

Cincinnati, Ohio, U.S.A.

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ISBN: 978-1-607260-47-9

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Printed in the United States of America

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# FOREWORD

John G. Maxwell, in his 2007 edition of *The 21 Irrefutable Laws of Leadership*, cites the “law of influence”. He states that the true measure of leadership is influence — nothing more, nothing less. And so it goes with Dr. Jimmy Perkins and his 3-volume textbook, *Modern Industrial Hygiene*. Dr. Perkins demonstrates the ability to view our professional challenges comprehensively, help set a direction, and align and motivate colleagues who further refine the direction. Ultimately, Dr. Perkins, strengthened by a longer term vision, influences the profession of industrial hygiene to realize practical outcomes, outcomes that change tomorrow what we do today.

The last 50 years have been witness to incredible shifts in the recognition, evaluation and control of chemicals, both domestically and internationally. The shifts have not been simple, incremental or consistent from one country to another. Often times, the proliferation of new chemicals and their management has required that we define and implement the best professional practices with limited or non-existent data. The new materials science horizons and introduction of nano-materials have further expanded the challenges for everyone. Civilization will always be faced with potential risk of one sort or another. It’s the nature of living. Nonetheless, it remains our challenge to make the best decisions to mitigate risk with whatever data and experience base are available. Dr. Perkins’ third, and final, volume in the series is an excellent guide in the exploration of risk management options, particularly as they apply to chemicals.

*Volume 3, Modern Industrial Hygiene: Control of Chemical Agents*, does a fine job of walking us through the following:

- Overview of Chemical Exposure Controls and Non-Ventilation Controls
- Ventilation
- “Control” at the receiver, which encompasses more traditional industrial hygiene features of respiratory protection and skin exposures
- “Control” at the receiver, which matures our thinking to encompass quality training, risk communication and behavioral based safety, and
- “Control”, which truly stretches our approaches with risk management systems,

managing with limited data, control banding and the newer European Union REACH requirements.

I have known Dr. Perkins, or as his friends, colleagues, and students call him, “Jimmy”, for more than 12 years now. We first met in the late 1990s, when we served as Directors on the American Board of Industrial Hygiene (ABIH). Since that time, we have co-chaired a number of national conference sessions, co-authored articles, and served on numerous committees together. I have always enjoyed Jimmy’s vision, insights, and keen sense of humor. I have also enjoyed his talent in selecting fine wines at dinner.

Many texts are often too conceptual in presentation and not adequately reflective of actual operations. Jimmy’s broad workplace and community environmental experiences include foundries, smelting, specialty metal products, poultry production, printing, telecommunications, educational facilities, mining, auto racing, construction, pesticide production and petrochemicals. The sheer breadth and depth of his practical experience serve us well in this one of a kind text that merges both theory and operational practice.

Our profession is grateful to Jimmy for taking this task on — grateful not only because this text strengthens our professional and technical masteries today, but because it sets a benchmark for future industrial hygiene professionals to continue to learn, adjust, and implement with both enthusiasm and courage. We shall forever be grateful for his positive influence on our profession.

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