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SECTION I: CHAPTER 1

INTRODUCTION TO OR-OSHA TECHNICAL MANUAL

Contents:

- I. Purpose
- II. Scope
- III. Cancellation
- IV. References
- V. Action Information
- VI. Actions Required
- VII. Significant Changes
- VIII. Content of the Manual

I. PURPOSE.

- A. The OTM provides technical information and guidance on occupational safety and health topics. The content is based on currently available research publications, OSHA standards, and consensus standards. The purpose of the manual is to assist OSHA Compliance Safety and Health Officers in hazard recognition and to provide guidance in accident prevention. It also serves as a source of advice for CSHO's on safety and health issues.

- B. The manual is not a substitute for OSHA standards and is not used for establishing Agency compliance policies. In the unlikely event of any inconsistencies between material in the manual and the requirements of the Occupational Safety and Health Act and the standards and regulations promulgated thereunder, the latter are controlling. The manual has ten sections and each section is divided into specific chapters. (See reference section below for a complete list of sections, chapters, and updates.) The information herein is valuable in establishing sound safety and health programs.

II. SCOPE.

This instruction applies OSHA-wide.

III. CANCELLATION.

OSHA Instruction TED 1.15 is cancelled.

IV. REFERENCES.

This directive may be used as a resource reference for compliance officers, in addition to OSHA Instruction CPL 2.103, Field Inspection Reference Manual (FIRM), which serves as a primary resource.

V. ACTION INFORMATION.

- A. RESPONSIBLE OFFICE. Office of Science and Technology Assessment
- B. ACTION OFFICES. None
- C. INFORMATION OFFICES. All National Office Directorates and Regions, State and Consultation Designees

VI. ACTIONS REQUIRED.

OSHA's compliance safety and health officers should use this as one of their resources for technical information on occupational safety and health matters.

VII. SIGNIFICANT CHANGES.

The following are major changes that are made in this directive:

- A. This Introduction (Section I) was added to the OTM.
- B. In Section II, Chapter 1, "Personal Sampling for Air Contaminants," the word "additive" was replaced by "synergistic" to reflect synergistic exposures and their measurement. All sections were revised, and a new Appendix (II:1-7) was added. Chapter 2, "Sampling for Surface Contamination," was extensively revised. In Chapter 3, "Technical Equipment," the section on batteries was augmented; private delivery services were added to the mailing information; and brand names were removed from the Appendixes. In Chapter 4, "Sample Shipping and Handling," mailing information was revised; and under hazardous materials "biological samples" was added.
- C. In Section III, Chapter 5, "Noise Measurement," the wording in the text

describing the procedure for measuring attenuation for dual hearing protection was modified to be consistent with the wording in Figure III 5-1, "Calculating Hearing Protection Attenuation." A new section, "New Developments in Hearing Protection Labeling," and an Appendix on Sample NHCA Labels and Recommendations of the NHCA Task Force on Hearing Protector Effectiveness were added. A table showing Threshold Limit Values for Ultrasound was replaced with one adhering to 1998 standards published by ACGIH, Figure titled "Calculating Hearing Protector Attenuation" was changed to "Case Scenarios," which consists of clearer examples of when hearing protectors are required. In Chapter 7, "Legionnaires' Disease," the micron specification of a recommended filter was changed from 1 to 0.2.

- D. In Section IV, Chapter 2, "Petroleum Refining Process," 15 tables were redesigned for a clearer representation of the process flows.
- E. In Section VII, Chapter 1, "Back Disorders and Injuries," Appendix VII:1-1 was replaced to reflect NIOSH's revised equation for the design and evaluation of manual lifting tasks. The remaining Appendixes were replaced by the current Appendixes VII:1-2, VII:1-3, VII:1-4.
- F. In Section VIII, a new chapter (Chapter 2, "Respiratory Protection") was added.

VIII. CONTENT OF THE MANUAL.

- A. The OTM is divided into the following sections and chapters:
 - 1. General Information
 - Introduction to OSHA Technical Manual (OTM)
 - 2. Sampling and measurement methods
 - Personal sampling for air contaminants
 - Sampling for surface contamination
 - Technical equipment
 - Sample shipping and handling
 - 3. Health hazards

Polymer matrix materials
Indoor air quality investigation
Ventilation investigation
Heat stress
Noise measurement
Laser hazards
Legionnaires' disease

4. Safety hazards

Oil well derrick stability
Petroleum refining processes
Pressure vessel guidelines
Industrial robots

5. Construction operations

Demolition
Excavations
Controlling lead exposures in the construction industry

6. Health care facilities

Hospital investigations
Controlling occupational exposure to hazardous drugs

7. Ergonomics

Back disorders and injuries

8. Personal protective equipment

Chemical protective clothing
Respiratory protection

9. Safety and health management

10. Miscellaneous issues

Metric system conversion

- B. OTM chapters are current as of the date of the original OTM publication, September 22, 1995, except for a) the chapters listed in the abstract under the headings "Recent Updates," and b) two chapters that were published

on May 24, 1996 (Section III, Chapter 7, "Legionnaires' Disease" and Section IV, Chapter 2, "Petroleum Refining Processes") and are current as of that date.

- C. Section VIII, Chapter 2 ("Respiratory Protection") is a new chapter and current as of May 1998.
- D. The bibliography at the end of each chapter provides a complete reference list.