



EMSL CANADA, INC.
LABORATORY • PRODUCTS • TRAINING

NIOSH 582e Equivalent Course

Sampling and Evaluating Airborne Asbestos Dust

February 24th – February 27th, 2020

Corporate Event Centre at CHSI
5110 Creebank Rd, Mississauga, ON L4W 0A1
9:00 AM – 5:00 PM Daily

COST: \$1,695 (CAD) per student

All instruction begins promptly at 9AM. Please arrive early for registration.

1. Course Overview & Introduction

- 1.1 Registration and Course Introduction
- 1.2 Course Objectives
- 1.3 Asbestos Overview (Mineralogy, Types, History, Uses)
- 1.4 Health Effects

2. Asbestos Regulations

- 2.1 Life Cycle of a Typical Asbestos Project
- 2.2 Regulatory Bodies (NIOSH, OSHA and Ontario 278/05, etc.)
- 2.3 Compliance Determination
- 2.4 Proficiency Programs

3. Sampling

- 3.1 Safety and Respiratory Protection
- 3.2 Types of Air Filter Cassettes
- 3.3 Pumps
- 3.4 Sampling Calibrations
- 3.5 Types of Samples (Area, Personal)
- 3.6 Sampling Strategies
- 3.7 Optimal Fibre Loading

4. Phase Contrast Microscopy

- 4.1 Basics of Phase Optics
- 4.2 Components and Function of PCM
- 4.3 Microscope Alignment
- 4.4 Microscope Calibration
- 4.5 Microscope Maintenance and Cleaning
- 4.6 Resolution, Magnification and Image Quality

5. NIOSH 7400 Method

- 5.1 Overview of the Method
- 5.2 A and B Counting Rules
- 5.3 Calculations
- 5.4 Quality Control
- 5.5 Introduction to Statistics

6. Sample Receiving, Handling & Preparation

- 6.1 Sample Acceptance and Rejection
- 6.2 Unique Sample Identification
- 6.3 Chain of Custody
- 6.4 Sample Preparation Techniques
- 6.5 Hands-on Sample Preparation

7. Sample Analysis & Reporting

- 7.1 Fibre Counting Examples
- 7.2 Procedures
- 7.3 Fibre Counting Worksheets
- 7.4 Hands-on Fibre Counting
- 7.5 Other Fibre Counting/ID Methods (PLM, TEM, SEM)
- 7.6 Calculations (Concentration (f/cc), Density (f/mm²), Blanks in Relation to Calculations, Limit of Detection)

8. Homework Review, Quizzes & Final Exam

- 8.1 Filter Analysis Practical
Analyst must be able to demonstrate the ability to analyze 15 past PT samples analyzed within the acceptable limits determined for the sample.
- 8.2 Written Exam (Passing grade of at least 80%)

Product Special for Attendees ONLY

Meiji Techno offers the MT6500 Series **Phase Contrast Microscopes (PCM)** for Asbestos fibre counting applications. Meiji Techno manufactures these microscopes pursuant to NIOSH 7400 and OSHA ID 160 Reference Methods.

Includes:

- Centering telescope
- Stage micrometer
- Green filter

Product ID # 8709066: **\$2,350 (USD)**

Product ID # 8709028A: **\$3,350 (USD)**



To register, call Jennifer Mazonas at 1-800-220-3675 x-3424 or Print and Fax to 843-958-8175 or Scan and Email to jamazonas@emsl.com.

Company Name: _____

Attendee Name: _____

Address: _____

City: _____ Province: _____ Zip: _____

Phone: _____ Email: _____

Credit Card #: _____ Exp: _____

Card Type: _____

Invoice Me (Non-Refundable) Signature: _____