



Professional Development Course:

Crash Course on Asbestos Risk Assessment: Workers, Community, Consumers
Crowne Plaza Nottingham. Monday 18 November 2019

Course Tutors

Dr. Andrey Korchevskiy is a certified toxicologist (DABT), certified industrial hygienist (CIH), and is the Director of Research and Development at C&IH (Wheat Ridge, Colorado).

Andrew Darnton, MSc, is one of the leading internationally renowned epidemiologists, famous for his landmark publications on asbestos health risk assessment. He is a statistician at the HSE, UK.

Bruce Case, MD, is a pathologist and epidemiologist at McGill University, Canada, one of the most advanced experts in the area of asbestos pathology. He has been a member of BOHS since 1985.

Course Information

Despite significant regulation, and in some cases a ban on their commercial use, asbestos and other elongate minerals remain one of the most significant occupational and environmental concerns worldwide. Notwithstanding the attempts to control its use, asbestos remains a hazard in various settings. For example, asbestos fibers can be found in ambient air as a background contaminant, at workplaces where asbestos-containing materials (ACMs) have yet to be removed, where employees are involved in abatement operations, in automotive brakes, in industrial filters, in endogenous soils and rocks, etc. Potential concerns regarding fibrous components of commercial products (like cosmetic talc and other) require special attention. To address these concerns, it is necessary to apply a systematic and scientifically-based approach to controlling exposure and risk. It is not enough just to compare exposure levels with existing regulatory standards, because applicability of these exposure limits can be questionable for various practical settings and for various fiber and particle types, resulting in both under-protective and overprotective limits. As a result, risk assessment has become the method of choice in many situations when occupational hygienists, environmental experts, public health professionals, and toxicologists face, analyze, manage, and regulate elongate mineral contaminants in air, soil, or commercial products.

This PDC will introduce the audience to cutting-edge topics applicable to asbestos and other elongate mineral risk assessment. The participants will utilize the four-step risk assessment paradigm (i.e., hazard identification, exposure assessment, dose-response assessment and risk characterization) that represents the preferred framework for dealing with elongate mineral contamination. The audience will test various probabilistic techniques for exposure estimation, including how to evaluate various exposure scenarios utilizing Monte Carlo and Markov's chain frameworks. The participants will also learn how to apply dose-response relationships for different fiber types and sizes, determine benchmark dose values, and probabilistically predict various health outcomes of exposure. A new model to predict potency factors of naturally occurring asbestos will be presented. Examples of applying the risk assessment approach to exposures from occupational activities, residential soil contamination, and commercial talcum powder will be demonstrated and discussed.