

Part I – Science & Technology Behind Air Sampling & Monitoring

Forward

Chapter 1 – Overview – M. Hoover

Chapter 2 – Behavior of Aerosols & Gases – E. Sajo & M. Hoover

Chapter 3 – Review of Radioactivity, Detection & Measurement – M. Maiello
[includes Radiation Safety (?)]

Chapter 4 – Basic Components of Air Sampling

Overview – M. Maiello

Filtration – M. Hoover

Adsorption –

Other Collecting Media -

Chapter 5- Sampling Applications

Workplace – J. Whicker (?)

Stack – J. Glissmeyer

Environmental – (?)

Emergency Situations – T. O’Connell & WIPP personnel (?)

Chapter 6 – Calibration of Air Samplers – T. Voss

Chapter 7 – Sampler Placement - Jeff Whicker

Chapter 8 - Radon Interference & CAM – N. Harley & (perhaps J. Rodgers)

Harley for Rn and progeny details, decay and interference

Rodgers for algorithmic corrections, CAM design, alarm strategy

Chapter 9 – Special Aerosol Characterization Techniques – M. Hoover

Chapter 10 – Review of Nuclear Fallout – H. Beck

Chapter 11- Introductory Internal Dosimetry - G. Potter

Part II – Standards, Regulations and Air Sampling Support

Chapter 12 – National and International Instrument Standards – F. Morgan Cox

Chapter 13 – Regulations Relevant to Radioactive Air Sampling – C. Jones

Chapter 14 – Emergency Situation Sampling – T. O’Connell

Chapter 15 – Software Associated with Aerosols, Deposition and Dose – E. Sajo and ?

Chapter 16 – Sampling in Extreme Environments – M. Hoover

Chapter 17 – Off-normal Air Sampling Occurrences (Lessons Learned from Mistakes)

Part III – Methods for Radioactivity of Importance

Method 1- Gross Alpha

Method 2 –Gross Beta

Method 3A- Tritium

Method 3B – Tritium Oxide

Method 4 – Carbon 14

Method 5 – Iodine

Method 6 – Gamma-Emitters

Method 7 – Radon

Method 8 - Plutonium

Method 9 – Personal Air Sampling

Glossary - Maiello

Appendix I – Radionuclide Characteristics - Maiello

Appendix II – Internet Resources -