

# GEHS 7500

## Air Sampling & Analysis

### Part 7:

- Sample Collection & Analysis for Gases and Vapors

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- a sample of air is collected, often with concentration of pollutant, and the contaminant is manually analyzed in the laboratory by appropriate instrumental or wet-chemical techniques.

- advantages:

- generally more accurate and reliable than direct-reading devices
- usually less subject to interferences
- more sensitive (can increase sample volume as needed)
- vast majority of “standard” methods

- disadvantages:

- requires highly trained personnel
- slow (laboratory analysis)
- requires appropriate laboratory support
- labor intensive
- limited amount of samples can be taken

## Classifications of methods:

1. *in situ* collection of contaminated atmosphere sample
2. selective collection/concentration of contaminant from flowing air stream

or

3. grab sample: essentially instantaneous
4. integrated sample: sample collected/averaged over some defined sampling period