M E 433 Professor John M. Cimbala Lecture 20

Today, we will:

- Discuss particle vs. steam plumes and how to distinguish them (Slides)
- Start talking about **particles** (sizes, shapes, terminology, classifications, etc.) (Slides)
- Introduce the concept of **number concentration** and various **mean particle diameters**

Summary Comparison of Steam Plumes vs. Smoke/Particle Plumes:

	Steam plume	Particle (smoke) plume
x	well-defined boundaries	fuzzy boundaries (not well defined)
	very white (like clouds)	can be various colors
	ends abruptly	does not end – just slowly dissipates

See Powerpoint slides on course website. (Slides_Steam_vs_Particle.pdf)



This is a:

- ⓐ Steam plume
- b. Particle/smoke plume
- → c. Combination steam and smoke/particle plume ?

<u>Particles</u> (sizes, shapes, EPA definitions, how they move, how they interact with our lungs, how to remove them, etc.)

See Powerpoint slides on course website. (Slides_Particles.pdf)