Day One (8 hours)

Program Overview and Objectives

Basic Understanding
Students will learn fundamental principles useful for evaluating control practice effectiveness and/or unintended consequences, understanding air quality regulations, and determining how agricultural practices and controls relate to existing and proposed regulations.

- Ideal Gas Law
- Psychrometrics
- Conservation Of Mass and Energy
- Particulate Matter Statistics

Practical Application
Students will learn about equipment used for sampling gases and particulate matter, the analysis techniques to determine emission rates and emission factors, and understand the assumptions and associated errors.

- Gaseous Measurements
- Particulate Measurements
- Emissions Calculations

Regulations
Students will be given an introduction to the various regulatory issues facing agricultural operations. Instructors will discuss thresholds, permitting requirements, control requirements, and multimedia concerns.

- Concepts and Terms
- NAAQS

Practice Exam

Day Two (8 Hours)

Review Practice Exam
Review Concepts and Terms

Control Equipment
Students will be exposed to various control methods for point sources. Instructors will discuss the applicability, effectiveness, and costs associated with the various methods.

- Hoods, Ducts, and Fans
- Cyclones
- Fabric Filters
- Electrostatic Precipitators
- Particulate Scrubbers
- Adsorption, Absorption
- Biological Filters
- Waste Treatment Lagoons

Agricultural Sources and Controls
Students will learn about typical agricultural pollutant sources, associated regulations, and proven and potential control strategies.

- Confined Animal Feeding Operations
- Field Operations
- Feed Mills and Grain Handling Facilities
- Cotton Gins

Final Exam