Phase Separation: Water Ingress
Fuel Quality Concerns

- Occurs when water level reaches ~0.5% volume of blend (60°F)
  - Water tolerance less in cold weather
- Ethanol migrates to lower water phase, gasoline migrates to top
- Phase separated material is treated as hazardous material

Water Layer on Bottom
Phase Separation Correction

- Recommend removal and disposal of affected fuel
- Correct system failure that caused water introduction
- In few cases, product may be salvaged, verify fuel quality and ethanol content
  - In ground product may need to be upgraded
    - Octane
    - Vapor Pressure
    - Other possible quality concerns such as gums and particulate
- Verify State regulatory procedures
Phase Separation Prevention

• Housekeeping is key!
  – Keep system in good working condition
• Continuously check for water introduction using alcohol compatible water finding paste
  – Train personnel to recognize phase separation
  – Some water detection equipment may not detect water introduction with ethanol blended fuels
• Install water slug filters if water is an ongoing concern