Fuel Tank Explosion Prevention Certification Requirements—
Instructors: Franklin L. Cummins, C. Bruce Stephens (This course may be taught one or both instructors.)

Description
This course provides details for all elements of fuel tank design needed for compliance with the regulation, with specific emphasis on the electrical design aspects. Some review of regulatory history and 25.981 [25-125] is included for reference and TCA, STC work. Specific design implementations are examined and evaluated.

The course will also include a high level overview of Electromagnetic Effects and Compatibility (EME / EMC), Lightning Effects (direct and indirect), High Intensity Radiated Fields (HIRF), Precipitation Static (P-Static), Electrical Bonding requirements, and requirements for Electrical Wiring and Installation System (EWIS).

Highlights
- The electromagnetic environment: considerations for 25.981
- Metallic and composite aircraft structures: considerations for 25.981
- The history of fuel tank protection requirements for aircraft certification
- Direct and indirect effects of lightning and HIRF testing for 25.981 compliance
- Requirements for in-tank mounted equipment (including FQIS)
- Requirements for out-of-tank mounted FQIS
- Requirements for fuel control equipment mounted out-of-tank
- Fuel tank bonding and continued Safety
- 25.981 ICA; Critical design configuration control limitations

Who should attend?
This course is intended for all design engineering disciplines, project managers, project engineers and laboratory personnel whose aircraft system may require protection of the airplane’s fuel system from ignition / explosion.