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Department of Transportation, Dockets
Docket No. FAA-1999-6411 -19
400 Seventh Street SW, Room Plaza 401
Washington, DC 20590

Subject: Transport Airplane Fuel Tank System Design Review, Flammability Reduction,
Maintenance and Inspection Requirements.
Notice of Proposed Rulemaking (NPRM)
Docket NO. FAA01999-6411, Notice No. 99-18

Dear Sir or Madam:

I would like to submit comments to the Drafts of AC's Nos. 25.981-1X and 2X, related to the NPRM above mentioned. I have been working as a consultant for Aviation Safety Facilitators (ASF).

1. AC 25.981-1X

In page 10, paragraph (b), third line, it is mentioned: ". . . Use of new technology, such as fiber optics, may provide a means of reducing or eliminating electrical powered components from inside the fuel tanks." (Our underline)

This assertion is in line with ASF's proposal regarding the use of fiber-optic oxygen monitoring systems, which will allow the crew of transport airplanes to become aware of the formation of potentially explosive vapors inside the fuel tanks.

2. AC 25.981-2X

In page 5, paragraph d., second line, it is mentioned: ". . . **because** methods that could completely prevent the development of flammable vapors in fuel tanks, such as fuel tank **inerting**, have not currently been shown to be practical."

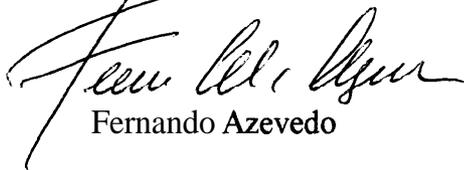
This assertion will not be valid if ASF proves the feasibility of its proposed fire suppression system based on miniaturized cryogenic technology and liquid nitrogen. These technologies, originally developed for military and space applications, are presently available for license into the private sector. They relate to methods for storing bulk inventories of inert gas onto aircraft at a minimum weight increase.

3. General Comments

If ASF proves the feasibility of an integrated system covering: (i) monitoring the oxygen level in fuel tanks; and (ii) **inerting** the vapors when they become potentially explosive, the approach of AC 25.981-2X should be changed in order to consider this breakthrough technological solution.

I would like to thank FAA for the opportunity to offer these comments.

Sincerely,



Fernando Azevedo