

# R. Lee Buehler

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Federal Aviation Administration  
Engine & Propeller Directorate  
Standards Staff, Room 301  
Rulemaking and Policy Branch  
ANE-111  
Attn: Mr. Mark Rumizen  
12 New England Executive Park  
Burlington, Massachusetts 01803-5213

RE: Comments to Proposed AC20-24C

Dear Mark,

First, I wish to thank you for offering a two week extension for comments to those of us in the Clean 100 Octane Coalition. It is most thoughtful and generous of you.

Next, I wish to state that I am writing on my own behalf, and not for others in the coalition. So, first I'll introduce myself and then offer my opinions of the situation and this document.....

I operate an early model Bonanza which is currently certified only for 100LL avgas. Late this spring I became aware of the *certainty* of the eventual end of 100LL and the *uncertainty* in finding and certifying an adequate replacement. The deeper I dug trying to understand the problem, the more concerned I became. Others shared my concern. That resulted in the formation of The Clean 100 Octane Coalition, an informal affiliation of owners/operators represented through their type clubs.

It is control over *unnecessary* uncertainty, or risk, in this replacement fuel discovery and certification process which most concerns me, and which I wish to address. Uncertainty is the enemy of capital formation and progress. *Unnecessary* risk needs to be aggressively identified and eradicated. No prisoners. In my view, enacting this guidance would serve to unnecessarily and materially increase the uncertainty of this effort, and the risk for failure. This needs to be fixed. Let me explain the problems I see.

**FAA's lack of early, active participation.** This is a very big effort, full of potential difficulties. Undiscovered problems generally exacerbate their impact over time, so need to be discovered and mitigated at the earliest possible moment. Any key player – and FAA is certainly key – that postpones participation, and yet reserves the right to correct problems, inherently increases the uncertainty and cost of the project. Wasted effort will be expended anticipating FAA's reaction to various matters, and some undiscovered issues that FAA could identify will go unresolved until much later in the process. This creates unnecessary project risk which is avoidable if FAA actively involves itself from the outset.

**FAA's right to invalidate the guidance process or result at any time.** Such a right inserts a very large dose of arbitrariness into the process at virtually any point, making it difficult to rely upon obtained results and completion of milestones. You just never know. This is the ultimate capital killer. On the other hand, it is clear that FAA's safety mandate trumps everything and undiscovered safety matters {for example} need to be resolved whenever they are encountered –

which may involve a “reboot”. This risk can only be mitigated, however never eliminated, through FAA’s active participation throughout the process and the parties’ ability *to rely upon a set of rules which are not arbitrary, or arbitrarily changed.*

**Reliance upon ASTM during the early stages of the project.** The risk profile for the project is largely determined during the early stage when standards and specifications are first being developed in concert with product experience. All my previous comments apply here. To then also rely upon a body like ASTM for progress without active participation, and management, by FAA is – excuse my directness – not responsible. At least for a project of this magnitude where we need success with speed. Let me remind you of several ASTM characteristics {as you undoubtedly know }:

1. Its participants are volunteers; part-time effort substantially lengthens the timeline
2. Its participants are volunteers; motivation to perform is, at best, uneven and inconsistent
3. Its participants carry conflicting agenda, yet consensus is required; company self-interest will generally trump dispassionate decision-making
4. It meets infrequently, vastly expanding the timeline for progress
5. The history is consistent with a slow-moving, consensus-driven body

I recognize that ASTM has a very central role in this process, and I am not suggesting otherwise. Rather, I am concerned about when and under what circumstances it becomes involved, and how it is to be managed given the nature of the organization.

In summary, the effort screams for active, competent leadership from FAA throughout with a set of clear rules which are not arbitrary, or subject to arbitrary change; this circular fails to deliver these critical pieces. FAA’s stepping up to the leadership task would do much to mitigate these risks.

Mark, I encourage you to rethink this process and carve out a much more involved, active role for FAA. I think you cannot delegate leadership successfully, especially to a body like ASTM. I am aware you are swamped with requests from all directions and you cannot service them all. And you don’t want to leave yourself open to having to respond to every Tom, Dick and Harry who thinks they have the world’s answer for the avgas problem. I get that. However, this surely must be among the highest priority tasks you will ever face so perhaps this must be handled on an exceptional basis.

Please reconsider FAA’s role in this very important task.

Thanks for giving me the opportunity to comment. Best of luck with this.

Respectfully submitted,

R. Lee Buechler/N241EE