

SAE/ISO Fire Containment Covers (FCC) and Fire Resistant Containers (FRC) Standards

Presented to: International Aircraft Systems Fire Protection Working Group.
Atlantic City, NJ

By: Dave Blake. FAA Fire Safety Branch

Date: Oct. 29-30, 2014



Federal Aviation
Administration



Fire Containment Covers (FCC)

TSO C203 for FCCs has been published by the FAA with an effective date of 7/1/2014.



Department of Transportation
Federal Aviation Administration
Aircraft Certification Service
Washington, D.C.

TSO-C203

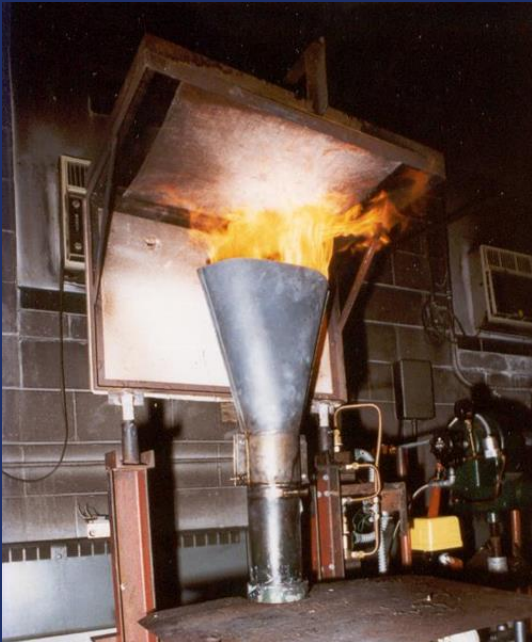
Effective
Date: 07/01/14

Technical Standard Order

Subject: *Fire Containment Covers (FCC)*

The TSO references SAE AS6453 standard with modifications.

Modifications are mostly for removal of references to non FAA requirements, and maintenance and net requirements.



Cargo liner oil burner test



Full scale mockup fire test

SAE/ISO working group members are discussing revisions to the original standard involving the requirement not to exceed 400 °F at a distance of 4” away from outside surface of the FCC.

If a change is made to the SAE standard, the TSO would also have to be changed if the FAA wants to incorporate the new version.

Fire Resistant Containers (FRC)

- **SAE standard 6278 (and ISO/CD 19281) are still under development.**
- **Last meeting was conducted on Sept 16-17, 2014 in Denver, CO**
- **Next meeting is scheduled for April 14-15, 2015 in Nashville, TN**
- **The initial drafts of both documents are very similar to the FCC standard.**



Unresolved Issues:

- **Should FRC standard still include the 14 CFR Part 25 Appendix F, Part III requirement (cargo liner oil burner test)?**
- **Lithium Batteries?**
- **Possible delayed smoke detection from a fire originating in either a FCC covered pallet or inside a FRC.**



Preliminary Smoke Detection Test Results

- **Corona Aviator theatrical smoke generator used.**
- **Ventilation system provided one air change in 4 minutes.**
- **Smoke detector alarm point was 96.5 %LT/ft**

Test Conditions	Number of Tests	Average Detection Time (min:sec)
Empty Compartment	10	0:58
Double Door AAY	3	None
Flexible Door AAY	10	7:35
FCC	10	4:40

- **Visually, the quantity of smoke produced during actual fire testing with FRCs and FCCs seems to be greater than with a theatrical generator.**
- **Additional testing is planned under more representative fire conditions.**

