Does the Bulk Load Fire Test Failure Mean CF3I is Inappropriate for Engine/APU Fire Extinguishing Systems, as Well?

Presenter: Robert S. Wright, Boeing

During the long search for replacements for Halon 1301, CF3I has been tested in both the propulsion and cargo applications. Boeing abandoned an effort to use CF3I in the cargo application following a test failure, which was detailed at the 2019 Triennial Fire and Cabin Safety Research Conference.

This presentation explains why the failure in the cargo scenario does not indicate a problem in the propulsion application, and why the (successful) surface burning fire scenario in the cargo application is a better indicator of propulsion performance, with a fully engaged fuel surface and no impediments to direct interaction between the agent and the flame structure. As such, Boeing is continuing to evaluate CF3I for certification for engine/APU applications.