



U.S. Department
of Transportation
**Federal Aviation
Administration**

SAFO

Safety Alert for Operators

SAFO 06008
DATE: 7/24/06

Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest.

Subject: Fire hazard with flameless ration heaters (aka meals, ready-to-eat (MRE))

Purpose: The Air Transportation Division, AFS-200, issues this SAFO to advise operators of the fire hazards associated with flameless ration heaters.

Background: In November 2004, a flight attendant conveyed a concern to an FAA aviation safety inspector about passengers eating MREs during flight. The flight attendant had become concerned when the MREs started producing heat and steam.

Discussion: At least one MRE manufacturer uses a combination of chemicals (e.g., food grade iron, magnesium, and salt water) that when mixed together, create heat and steam to warm the meal. At its Technical Center in Atlantic City, NJ, the FAA studied the safety of such meals onboard passenger-carrying aircraft. The FAA conducted a series of six tests in a variety of conditions in an open cabin environment and in confined spaces simulating an overhead bin or a cargo hold. The FAA summarized its findings in the following statement:

“It is evident from the tests that the release of hydrogen gas from these MREs is of a sufficient quality to pose a significant hazard onboard a passenger aircraft.”

In June 2006, the FAA released a Technical Note addressing The Fire Safety Hazard of the Use of Flameless Ration Heaters Onboard Commercial Aircraft DOT/FAA/AR-TN06/18. This report is available for download free of charge at: <http://actlibrary.tc.faa.gov/> (select Search Library Catalogue; use the terms “Flameless ration heaters”). A hard copy may be purchased from the National Technical Information Service (NTIS) at: <http://www.ntis.gov/>.

While this Technical Note does not officially establish that flameless ration heaters are hazardous material, its message regarding safety is perfectly clear: such heaters may create a safety hazard in an aircraft.

Recommended Action: Directors of safety, directors of operations, fractional ownership program managers, directors of training, and crewmembers of passenger-carrying airplanes should be familiar with the content of this SAFO, and should implement practices to prevent flameless ration heater MREs from being activated by passengers during flight.