

ASHRAE Guideline 50P

Title: Acceptable Indoor Air Quality for Crewed Spacecraft and Habitats

Purpose: The purpose of this guideline is to specify the recommended indoor air quality that an environmental control and life support system for a crewed off-planet spacecraft or habitat should provide to be acceptable to human occupants and to minimize adverse health effects. This guideline is intended for application in new commercial spacecraft and habitats.

Scope:

This guideline applies to spaces intended for human occupancy within commercial spacecraft and habitats operated in microgravity and in a surrounding vacuum. This guideline provides recommendations for the design, installation, performance verification, and operation and maintenance of air cleaning and air conditioning systems. This guideline contains recommendations related to certain contaminants and contaminant sources including, but not limited to, crew members, experiment processes, docked vehicle atmosphere mixing, material off-gassing, moisture, and biological growth.