

Tiny "fibres" (dendrites) may have played role in 787 battery failure

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The U.S. National Transportation Safety Board is investigating whether tiny fibre-like formations, known as dendrites, inside lithium-ion batteries could have played a role in battery failures on two Boeing Co (BA.N) 787 Dreamliners last month.

Dendrites - just one of several possible causes under investigation by the agency - accumulate as a battery is charged and discharged, and can cause short circuits, according to battery experts.

"As part of our continuing investigation, we are looking at whether dendrites may or may not have been a factor," Kelly Nantel, director of public affairs for the NTSB, told Reuters in an email.

The Wall Street Journal reported on Monday that the NTSB was looking into dendrites, suggesting that investigators were looking at the tiny deposits as a major element in the probe.

Nantel said the NTSB has not ruled out any potential causes and that dendrites are "one of many things we are looking at" in determining what caused a battery aboard a parked Japan Airlines (9201.T) 787 to catch fire in Boston on January 7.

"We are still considering several potential causes for the short circuiting" in the sixth of eight cells in the battery on the JAL plane, Nantel said.

NTSB Chairman Deborah Hersman said last week that a short circuit in the lithium-ion battery had caused the fire.

JAPAN PROBE

The Japan Transport Safety Board JTSL is investigating a second 787 battery incident that prompted an All Nippon Airways (9202.T) plane to make an emergency landing in western Japan on January 16. That battery showed signs of overheating.

Air safety regulators worldwide later grounded all 787s until the cause and a solution are found.

Boeing did not immediately respond to a request for comment. The planemaker completed what it called an uneventful test flight of a 787 on Saturday, its first since the lightweight, carbon-composite aircraft was grounded.

Nantel said other factors under investigation include the state of charge of each cell and the method and delivery of that charge, contamination, electrode folds, wrinkles and pinches, "and the assembly of the cells and battery."

The NTSB is also looking at "the total design of the battery, including the physical separation of the cells, their electrical interconnections, and their thermal isolation from each other," she added.

SOURCE Reuters

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