



ATA 26 – Fire protection: tube replacement.

This Special Airworthiness Bulletin (BEA) is intended to alert the civil aviation community on some events reported by the operators about corrosion presented on cargo compartment fire suppression system tubes.

This bulletin is informative, and the recommendations herein are not mandatory. Up to this time, there is no airworthiness concern that would warrant an Airworthiness Directive (AD) according to Regulamento Brasileiro da Aviação Civil (RBAC) nº 39.

Applicability:

EMBRAER S.A. airplanes model ERJ 190-400, as identified in EMBRAER Service Bulletin Nº 190E2-26-0011, Revision 01, dated November 22, 2024, or its further revisions.

Description:

During maintenance activities, holes caused by a corrosion process in the airplane cargo compartment fire suppression system tubes were detected. Further investigation has revealed that the corrosion starts after the fire suppression system activation in some tubes connected with the high-rate discharge bottles and due to the tubes geometry, which allows the fluid accumulation contaminated with the particles coming from the electro-explosive squib dispositive, as well.

Further data has shown that even in the case of a tube corroded by these particles, the resulting holes and their progression over time, are not enough to reduce the Halon concentrations in the affected cargo compartment below the levels required by the applicable regulations.

In addition to that, the current airplane Maintenance Review Board Report (MRBR) has a dedicated Certification Maintenance Requirement (CMR) task to detect a safety significant latent failure on the cargo compartments discharge tubing by doing a Functional Check (FNC) at an interval of 10,000 Flight Hours (FH).

However, as a precautionary action, the EMBRAER has issued a dedicated Service Bulletin to replace the tube subjected to a fire suppression system started at the cargo compartments to prevent a reduction of system efficiency.

Recommendations:

Within the next 90 days of any event below, replace the applicable tubes as follows.

- a) If the fire suppression system was started to the aft cargo direction, replace the tube Part Number (P/N) 476087, or P/N 196-75865-401, or P/N 196-75865-403 with a new one having same P/N.
- b) If the fire suppression system was started to the forward cargo direction, replace the tube P/N 476064, or P/N 196-75861-401, or P/N 196-75861-403 with new one having same P/N.

These replacements must be done according to the detailed instructions and procedures described in the EMBRAER Service Bulletin N° 190E2-26-0011, Revision 01, dated November 22, 2024, or its further revisions.

References:

EMBRAER Service Bulletin N° 190E2-26-0011, Revision 01, dated November 22, 2024, or its further revisions.

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