

COMMENT RESPONSE DOCUMENT

EASA PAD No. 24-137

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Commenter 1: AIR-TEC EUROPE – Dagmar Denkova – 18/11/2024

Comment # 1

With reference to the Notification of Proposal to issue an Airworthiness Directive dated of 12.11.2024 No.: PAD No.: 24-137 our company Air-Tec submits an objection to the issued proposal.

Our company Air-Tec operates 22x L410UVP-E20 aircraft, so therefore we were asked by GE to participate in the Fuel Lubricity Improver HiTEC 580 pilot program in accordance to the SB-0004000. The procedure prescribed by the Service Bulletin was introduced into our process in December 2022. We used the recommended additive Octel DCI-4A.

With the same type of operation and the use of Fuel Lubricity Improver HiTEC 580, an increase of the failure rate of the FCUs LUN6590.71-8 was detected during the 2023. On each FCU the same failure rollback was found (no response to power lever, no response to throttle, sticking on 40%).

The problems occurred regardless of operating conditions - location of operation, fuel, climate etc.

We faced extreme costs for FCU repairs and replacements throughout 2023:

- 2 (two) pieces of FCU were scrapped due to inner corrosion and water presence in the fuel. In the last 10 years of operation, we have not registered any FCU that was discarded due to corrosion. We are talking about defects and scrapping of units not older than 3 years.
- 8 (eight) pieces of FCU had to be sent to manufacturer for repair and warranty repair. The FCU manufacturer found water contamination of the used fuel when receiving the parts and corrosion of the parts during disassembly. Two pieces were scrapped, several devices were repaired and several of them had to undergo an overhaul.

FCU manufacturer was not able to determine the root cause of the issue because it was not involved in the Fuel Lubricity Improver project.

GE requested two defective FCU under warranty for analysis. The manufacturer's findings 8D reports were submitted by the FCU manufacturer to GE. Afterwards GE invited us to have the FCU repaired by the manufacturer.

Due to the enormous failure rate of the FCUs, we have decided to discontinue further use of the Fuel Lubricity Improver HiTEC580 as of 31.12.2023. We have not had a single FCU failure since then.



Our concern regarding the above issue was forwarded to GE in January 2024 with assurances that Air-Tec had followed all the attributes of the prescribed procedure. GE has received all supporting documents from our company and the FCU manufacturer regarding our objections. We have not seen any proposed actions or solutions from GE to the situation.

Since the use of the additive has a major impact on the operation of the FCU, in our opinion, the use of the additive should at least be consulted and approved with the FCU manufacturer.

Based on 1 year of experience using HiTEC 580 to improve fuel lubrication per Service Bulletin SB-00400, we assume that the additive has a negative effect on the reliability of the new FCU model LUN6590.71-8 under the given conditions. Therefore, we have decided to suspend the use of additives from the beginning of 2024 and we hereby file an objection on PAD 24-137.

EASA response:

Comment not agreed.

Available technical data provided to EASA by the TC holder does not support the objection as reported. GEAC informed that intensive relevant investigation has been conducted and the result do not identify any unsafe situation during service. Therefore, the appropriate use of the Fuel Lubricity Improver Additives (LIA) could not be identified as contributing factor to the reported issues. The FCU manufacturer has been involved in the investigation as GEAC supplier.

EASA confirm that the use of the LIA has been approved in accordance with existing regulations (e.g., CS-E and Part 21). The HiTEC 580 LIA is currently approved for usage on all M601 and H-series engine models. It was originally certified on M601 models, and later in 2010's gradually introduced to the H-series models as the primary LIA during the initial type certification. The NALCO 5403 and Octel DCI-4A have been introduced as well for H75-200 engine model under EASA Major Approval 10079079. The engine-level ICA defined in EOMs clearly define the list of approved fuel additives and their minimum effective and maximum permitted concentrations.

No changes have been made to the Final AD in response to this comment.

