

International Maintenance Review Board Policy Board (IMRBPB)

Issue Paper (IP)

Initial Date (DD/MMM/YYYY):03/12/2009

IP Number: IP 104

Revision / Date (DD/MMM/YYYY):

Title: Consideration of so called “maintenance functions/systems” in MSI analysis

Submitter: EASA

Issue: Some manufacturers use a policy which allows

- Selecting non-MSI
- Not developing level 1 and level 2 analyses within an MSI

for respectively systems or functions required solely on ground for maintenance purpose (including trouble-shooting) and called “maintenance systems/functions”

Examples of “maintenance functions/systems”:

- function to depressurize the hydraulic reservoir for maintenance reason,
- ground/service door (e.g. to allow access to the landing gear bay for maintenance purpose)
- service area lighting.

Problem:

Strictly following the MSG3 MSI selection criterion, “maintenance systems” should be selected as MSI because they are usually hidden to the crew during normal duties (‘YES’ to the first MSI selection question).

Similarly, strictly following the MSG3, “maintenance functions” within an MSI should undergo level 1 and level 2 analyses.

However some TCH use above-mentioned policy explaining that failures of maintenance functions have no direct adverse effect on operating safety and capability as they are not used during operation.

The PB should consider the following:

- Spurious failure of “maintenance systems” (e.g. spurious opening of ground/service door in flight) could have an adverse effect on operation, possibly on safety.
- Some failure mode of “maintenance system/function” could remain hidden to the maintenance crew (e.g. wrong manometer indication to the mechanics)
- Systems like CMS or SHM, which are used during performance of maintenance should undergo MSG3 analysis (see also IP76)

Recommendation (including Implementation):

The PB considers that any “maintenance Systems or functions” as long as installed on the aircraft should be addressed as per MSG 3 as any other item. The 4 initial questions are applicable and should be considered. If one of them is yes then the item must be considered as / within an MSI and a normal level 1 and Level 2 analysis must be performed.

IMRBPB Position: Agreed

Date: 28/APR/2010

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Status of Issue Paper (when closed state the closure date):

Closed 28/APR/2010

Recommendation for implementation:

Important Note: The IMRBPB positions are not policy. Positions become policy only when the policy is issued formally by the appropriate National Aviation Authority.