

Proposed Special Condition on Shower installation

Applicable to Large Aeroplane category

Introductory note:

The following Special Condition has been classified as an important Special Condition and as such shall be subject to public consultation, in accordance with EASA Management Board decision 02/04 dated 30 March 2004, Article 3 (2.) of which states:

"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency."

Statement of Issue

An applicant has submitted a cabin design proposal, which includes a shower.

As the proposed installation is a novel and unusual design feature, the applicable airworthiness codes JAR/CS 25 do not provide standards or specific guidance material for this type of installation.

In addition to generally applicable requirements, EASA considers that the design must address the following aspects :

- Water systems
- Ventilation rate
- Firm handhold
- Emergency warning, return to seat
- Oxygen availability
- Emergency accessibility

Large Aeroplane category - Special Condition D-4314-002

- Shower installation -

Considering the specific features of a shower, the following special condition criteria define the design requirements to be met.

1- A return to seat audible and visual indication, readily detectable by shower occupants, must be activated at the same time as the fasten seat belt signs in the main cabin.

2- In case of depressurisation or drop of the oxygen masks in the cabin there must be a visual and audible indication to an occupant inside the shower. The oxygen provisions must readily be available without stepping outside the shower (reaching through an open door is acceptable).

3- Placards must be installed to indicate that the shower must not be used for the stowage of cargo or passenger baggage.

4- Appropriate firm handhold features must be available in the shower area.

5- The shower must be designed to preclude anyone from becoming trapped inside the shower. If a locking mechanism is installed, it must be capable of being unlocked from the inside and the outside without the aid of special tools.

Note :

To complement the SC criteria, a set of Interpretative Material (IM) items, with which the VIP Interior features (including the shower) must comply, have been identified as follows :

6- An analysis should be performed to identify possible water leakage failures, and to show that appropriate safety features have been included in the design.

7- The shower compartment must be considered a passenger compartment in terms of the need for ventilation. The applicant should justify that adequate ventilation is provided within the shower. The cabin air itself can be considered as "fresh air" source for the air supply of the shower.

8- The shower air outflow should be directed into aircraft areas unaffected by the high water content of the air flow.

9- Depending on the design of the shower, the Isolated Compartments CRI may be applicable.

10- Electrical power outlets shall be designed and installed according to the applicable Executive Power System (EPS) CRI.

These IM items are listed to provide commenters with the whole picture of the stated issue, and are informative materials only.