

[“FN” means “Facilitator’s Note”]; [“PA” means “Provisionally Agreed”]

Definitions

“Tier 1” aircraft are all new aircraft delivered 3 years after the Effective Date of the final rule that are not Tier 3 aircraft.

“Tier 3” aircraft are aircraft that:

- (a) are ordered [**x or more**] years after and delivered [**y or more**] years after the effective date of the final rule; or
- (b) [are in a new type design][are a new type design for which application is filed with the FAA more than 2 years after the effective date of the final rule].¹

1. The requirements of this section shall apply 3 years after the Effective Date of the final rule to all carriers operating aircraft that have a FAA-certified maximum passenger capacity of 60 or more seats: [PA, subject to brackets]

a. Flight attendant training

Carriers must train flight attendants to proficiency on an annual basis to provide assistance in transporting qualified individuals with disabilities to and from the lavatory from the aircraft seat, including the use of the on-board wheelchair, and with respect to any assembly or modifications to the accessibility features of the lavatory or on-board wheelchair.

b. Publication of accessibility information see []

Carriers must provide information, on request, to qualified individuals with a disability or persons making inquiries on their behalf concerning the accessibility of aircraft lavatories. This information must also be available on the carrier’s website, and in printed or electronic form on the aircraft, including picture diagrams [FN: of what?].

¹ The second brackets in subpara. (b) were requested by Boeing in prior discussions of the plenary and again in comments submitted Oct. 8 on an earlier draft of this memo (though the language was not included in the airline offer or discussion in our last conference call). Boeing’s explanation for requesting second bracket: “This gives the OEMS (for tier 3) the 2 years necessary to ensure our new type design outlined to the FAA would align with the tier 3 DOT requirement. Recall that to submit an application to the FAA we must have certain elements of the airplane defined such as fuselage size, door locations, pax count which could be impacted by a larger lav. For example of the rule were effective tomorrow, and we made applicant for a new airplane the day after, it may not have considered a larger lav.” *Facilitator Note:* This change echoes comments Michelle has made in prior proceedings, but is not textually consistent with the language in the industry offer discussed on our last call, which offer which is quoted verbatim (with the exception of subparagraph marking) in the first brackets above.

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c. International Symbol of Accessibility.

Carriers shall remove or conceal ISA from new [and in-service] aircraft equipped with lavatories that are not capable of facilitating seated independent transfer.²

2. All Tier 1 aircraft have an FAA certified maximum passenger capacity of 125 or more seats shall feature at least one onboard lavatory that meets the following specifications:

a. *Toilet seat height.* [PA subject to brackets]

[In the event that the OBW Task Force confirms that an over-the toilet OBW design is feasible for use on current-type aircraft] toilet seat height shall be set at a level that does not conflict with sink height. A seat height must be at least 17 inches high. (No specific measurement shall be provided in the proposed regulation.)³

b. *Assist handles.* Assist handles [shall be provided and positioned as required to meet the needs of individuals with executing an independent standing transfer and shall support a minimum of 250 lbs. **[PA on previous call, but wording altered by stakeholders since then]**

c. *Faucets.* Carriers shall ensure that either (i) lavatory faucets offer controls with tactile information concerning temperature or (ii) water temperature for all passengers is adjusted to eliminate the risk of scalding for any passenger. **[PA]**

Automatic or hand-operated faucets shall dispense water for a minimum of 5 seconds for each application.

d. *Flush control* **[not yet discussed]**

OEMs/carriers shall not be required to modify the location of flush controls, but location information shall be made available to passengers through informational cards, online, and upon request.

e. *Attendant call buttons.* Attendant call buttons shall be provided in the lavatory. **[PA]**

f. *Other lavatory controls and dispensers.* **[PA?]**

Information regarding location and use of all other lavatory controls and dispensers shall be made available through informational cards on request, verbally through flight attendants, online, or by phone and TTY where those services are ordinarily provided.⁴ [PA]

g. *Door sill.* The lavatory door sill shall be designed so as to prevent the leakage of fluids from the lavatory floor and trip hazards during an emergency evacuation, with minimum obstruction to the passage of the on-board wheelchair across the sill.⁵ [PA in principle,

² FN: Michelle believes the bracketed language was not agreed to on the call. My notes that the original language in the industry offer read “shall remove or conceal ISA from new [nonconforming] aircraft . . . and from existing aircraft where feasible.” Patrick then clarified that “where feasible” was an inadvertence and the phrase “where feasible” was removed, whereupon the language was provisionally agreed. Remaining language has been altered to conform to textual revision suggested by Michael Block. The revision is more clear and concise than the prior version and does not change the sense so I accepted it.

³ FN: This is not a policy issue, but I suggest adding the bracketed clause to supply context that will help the sentence that follows it make sense to readers outside our group.

⁴ Lavatory dispensers covered by this sub-section include: soap, cup, tissue, toilet pager, paper towel, waste bin. Controls covered by this sub-section include: Flush, Call, Lock. Faucets, Door Handle.

- h. *Sharps/bio-waste*. Carriers shall develop and, upon request, inform passengers of trash disposal procedures/processes for sharps/bio-waste. **[FN: This is PA though I modified it with what I think is an innocuous addition, that they should inform passengers of such procedures upon request.]**

- i. *Door locks*. [not yet discussed]

Carrier Position: “We do not include a door lock height standard because there is no ADA standard and we are unaware of any complaints on door lock height in aircraft.”

Advocate Position: [At least on Tier 3 aircraft], there must be at least one lavatory with a door lock accessible to an individual seated in the on-board wheelchair.⁶

- j. *Toe clearance*: [not yet discussed]

No changes to toe clearance under the sink due to engineering challenges of doing so.

3. Retrofit of aircraft **[Not yet discussed]**

OEM/Carrier position: Retrofit of existing aircraft is not required, but if a carrier chooses to retrofit/replace lavatories on existing aircraft undertaken after the 3 year, Tier 1 compliance period, the new lavatory must include the lavatory design requirements in section 2 of Tier 1 above.

Advocate Position: A carrier shall not be required to retrofit cabin interiors of existing aircraft with 125 or more seats to comply with the requirements of this section. However, if a carrier replaces a lavatory on an aircraft with more than 125 seats delivered before the delivery deadline for Tier III accessibility then it must replace it with a lavatory that meets Tier I requirements.

4. Onboard Wheelchair (OBW) **[FN: Agreed in principle, but re-worded airline proposal with neutral language.]**

New aircraft entering service 3 years after the effective date of the Final Rule shall include a redesigned onboard wheelchair that will meet DOT guidance on OBW standards, provided that such guidance shall be developed through a collaborative process that allows the participation of advocates, airlines, manufacturers of OBW, regulators, and other stakeholders. Airlines shall not be liable for the failure by third parties to develop and deliver compliant OBW. Any OBW specified by such guidelines shall fit within the existing OBW space and weight limits applicable to each carrier’s aircraft types without impact on interior configuration, storage location or weight parameters.⁷

[FN: The Advocates’ proposal contains detailed specifications for the OBW. Those specifications are best addressed to the OBW task force just mentioned, so are not detailed here.]

⁵ FN: The call revealed commonality of intent but the language was a bit imprecise for a regulation. So I re-worded this to try to make language more precise while capturing the intent expressed on the call. Since the call, one OEM has called for this provision to be removed from Tier 1 and inserted in Tier 3. However, that is not what was agreed on the call.

⁶ From Mario Damiano of Access Board: “In preparation for Monday’s call on outstanding issues, I wish to clarify with respect to the issue of door locks that (contrary to what is stated on p. 2 of the Airline Revised Lav Offer) there are ADA Standards (308.2 and 309.3) that cover reach ranges and operable parts, and would apply to something like a door lock located in front of an individual seated in a wheelchair. See: <https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-3-building-blocks>. The range would be 15-48 inches above the floor.”

⁷ Reflects slight wording changes suggested by Michael Block.

Tier 3

5. Applicability: See definitions above.

6. Specifications of Tier 3 lavatory.

OEM/Carrier Proposal (requirements for at least one lavatory per aircraft):

Tier 1 standards specified above carry over to Tier 3, plus airlines can agree to a single aisle aircraft accessible lavatory standard consistent with what currently exists for the twin aisle aircraft under 382.63.

Advocate Position (requirements for at least one lavatory per aircraft):

The following requirements shall apply to at least one lavatory on each Tier 3 aircraft (see Figure 1):

- a. The accessible Tier 3 lavatory shall permit a qualified individual with a disability to perform a seated independent transfer from the on-board wheelchair to and from the toilet by an individual equivalent in size to the 95th percentile male, and an assisted transfer from the onboard wheelchair to the toilet of an individual equivalent in size to the 95th percentile male by an individual equivalent in size to the 95th percentile male. The transfer must occur within the lavatory with the door closed.
- b. The accessible Tier 3 lavatory must afford privacy to persons using the on-board wheelchair equivalent to that afforded ambulatory users.
- c. The accessible Tier 3 lavatory shall permit a qualified individual with a disability to enter, maneuver within as necessary to use all lavatory facilities, and leave, by means of the aircraft's on-board wheelchair. The accessible lavatory should include:
 - i. Maximum sink/counter height measured from the floor to accommodate a 5th percentile female sitting in the on-board wheelchair.
 - ii. Minimum **toe clearance** dimension for the area under the sink (10 inches height).
 - iii. Minimum knee clearance such that a 95th percentile male sitting on the on-board wheelchair can access the sink. *[MA: Need clarity on this requirement to understand how to assess. For example is the person perpendicular or parallel or at another angle to the sink?]*
 - iv. Lavatory entrance configuration must provide maximum maneuvering space to allow for the on-board wheelchair to enter either forward or rear facing. *[MB: "Maximum" is subjective and doesn't consider if moving is self-motive or assisting]*
 - v. The toilet seat height and OBW height shall be consistent [KHZ: 18 inches].
 - vi. All controls and dispensers in the lavatory must be at a reach range and placement to accommodate a 5th percentile female [in the seated position].⁸

⁸ Lavatory dispensers covered by this sub-section include: soap, cup, tissue, toilet pager, paper towel, waste bin. Controls covered by this sub-section include: Flush, Call, Lock. Faucets, Door Handle. A "5th percentile female" would be a 4 foot, 11-inch woman who weighs 113 pounds.

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- vii. A flush control accessible from the seated position on the toilet (i.e., control shall be located adjacent to and accessible by a 5th percentile female and a 95th percentile male sitting on the toilet;
 - viii. An attendant call button that is separated from the flush button but accessible to an individual seated on the toilet.
- d. The accessible Tier 3 lavatory shall offer the following additional accessibility features:
- i. Visual and audible cabin announcement mechanism within the lavatory alerting the passenger to return to his or her seat. *[FN: This is the purview of the Cabinet Announcements Task Force is it not?]*
 - ii. Firm, stable, and slip resistant floor surface within the lavatory. *[MA: We have an FAA requirement for this. Should we just reference it? 25.793]*
 - iii. Mirrors installed with the bottom edge of the reflecting surface that is usable by a 5th percentile female and 95th percentile male⁹ sitting in the on-board wheelchair.
7. Compliance determination: testing of Tier III accessible lavatory

Carrier Position: No proposal. Presumably no change from current approaches used for determining compliance of twin-aisle aircraft with accessibility requirements.

Advocate Position: Compliance with the performance specifications set forth in this regulation shall be determined by the following methods:

- A virtual 3-D validation using the 5th percentile female manikin and the 95th percentile male manikin with dimensionally correct on-board wheelchair during the design phase.
- In situ testing of first production model.

[MA: To be discussed for understanding. – each FOM? Each p/n? each minor change in the lav? In situ testing – by whom?]

[MB: Disagree with proposed testing methodology. Design validation against hard requirements is acceptable, as with Part 25 and Part 121 validation. Subjective evaluation by "qualified individuals" will not be agreeable due to different capabilities and opinions.]

⁹ A “95th percentile male” would be a 6 foot, 2-inch man who weighs 246 pounds.

Figure 1

