

lighting systems (that is, emergency exit signs, interior lighting, exit handles, and exterior lighting) and, except for the marking requirement discussed above, proposed a compliance date 2 years after the publication date of a final rule.

*Comments:* Sixteen comments were received on proposed § 121.310. All commenters oppose the proposal to retroactively require any additional emergency exit signs or emergency lighting on 10-to-19 passenger seat commuter airplanes.

Several commenters state that the cost of retrofitting in-service airplanes with an emergency lighting system would be much more expensive than the FAA expected when the notice was prepared.

Six commenters note the size of the cabin area of these airplanes and that no person is seated more than 8 feet (or two or three rows) from an exit. One of these six also notes that no person is more than 12 feet from two exits.

Four commenters note that an emergency evacuation demonstration is required for the certification of commuter category airplanes and that these demonstrations have shown that the airplanes can be evacuated, under conditions of total darkness, in less than 90 seconds. Two other commenters note that there is no known service history or adverse accident data related to commuter operations to support the need for this proposal. Therefore, all six of these commenters believe there is no justification for the proposal and each of them recommends that it be withdrawn.

One commenter believes that the current briefing on exit locations and their use is sufficient and that no further action is needed. Two commenters believe that the requirement in § 121.310(c)(3) to show compliance with § 25.812(e) does not add any safety to these airplanes. They point out that the height of the ceiling in their airplane is only 4¾ feet high and question the need to comply with the provision of § 121.310, which requires compliance with § 25.812(e). Section 25.812(e) requires escape path markings for passenger guidance, "when all sources of illumination more than four feet above the cabin aisle floor are totally obscured." According to commenters, with a ceiling height of only 4¾ feet, it is likely that the required exit markings are located less than 4 feet above the floor and that compliance with § 121.310(c)(3) is not necessary. Another commenter believes that the requirement in § 25.812 for emergency lighting to operate for 10 minutes is not needed for these airplanes. The commenter points out that the required emergency evacuation time for these airplanes is much less than 10 minutes

and that this requirement should be adjusted accordingly. One other commenter suggests that flashlights be made available. Finally, two commenters acknowledge that emergency lighting may enhance safety; however, they also believe that this enhancement in safety can be provided by a lighting system that is less expensive, less complex, and much lighter than the one envisioned by § 121.310. Accordingly, they provide some suggestions for such a system.

Embraer, a foreign manufacturer of transport category airplanes, believes that § 121.310(f) should also be amended to exclude smaller (e.g., 20 to 30 passenger) transport category airplanes as well as nontransport category airplanes. The commenter believes that a passenger seat would have to be removed from its product for operation under part 121 if smaller transport category airplanes were not also excluded from this section.

AACA supports the proposed amendment to § 121.310(g).

The only other comment received concerning this issue was from an individual who requests resolution of the issue of whether the 2-inch wide contrasting band has to be on the fuselage surrounding the emergency exit or on the exit itself.

*FAA Response:* Section 23.803 does require an emergency evacuation demonstration, as noted by the commenters; however, the demonstration is required primarily to compensate for the differences in evacuation design features (e.g. aisle width, exit size, etc.) required by part 23 and those of part 25. Like the demonstrations required by part 25 for airplanes with more than 44 passengers, the demonstrations are intended to evaluate the evacuation capability of the airplane under standard conditions and are not intended to show the evacuation capability of the airplane under the most adverse condition that could be encountered. They are not intended, for example, to demonstrate the evacuation capability of the airplane when there is dense smoke in the cabin or when there is hazardous, damaged structure in the vicinity. The applicability of the required evacuation demonstrations to the need for emergency lighting is therefore limited.

Passengers must egress rapidly in the event of fire. Contrary to the commenters' assertions concerning a lack of adverse service experience, the FAA is aware of at least six instances since 1980 in which passengers had to be evacuated because of fire from such nontransport category airplanes or transport category airplanes with cabins

of similar size. There is no doubt that safety can be enhanced considerably by requiring compliance with the emergency lighting requirements proposed in Notice 95-5. Nevertheless, the installation of such lighting is very costly.

In response to excluding smaller airplanes from the requirements pertaining to access to exits, § 121.310(f)(2) states, in part, that there must be enough space next to each Type I or Type II emergency exit to allow a crewmember to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required (20 inches wide). Part 135 contains the same requirement for airplanes having a passenger seating capacity of more than 19 seats.

Since the commenter's product has more than 19 passenger seats and numerous examples are already in service in this country, the airplanes have presumably been shown to comply with either § 135.178(f)(2) or the identical text of § 121.310(f)(2). Thus, this rulemaking would not impose any new burden on airplanes with more than 19 passenger seats.

Section 121.310(g) states that exterior exit markings "must be a 2-inch wide colored band outlining each passenger exit on the side of the fuselage." Since the band is outlining the exit it would be on the fuselage, not on the exit.

After reviewing the costs and benefits associated with the proposed emergency lighting requirements, the FAA has decided to revise the final rule as follows:

1. The floor proximity lighting requirements in § 121.310(c) will apply to all airplanes except non-transport category airplanes type certificated after December 31, 1964. In effect, this is not a change from current requirements.

Affected airplanes with 10 to 19 passenger seats will not have to comply because of the small cabin size, the probability that passengers would be able to find the emergency exits without floor lighting, and the high cost of retrofitting for these requirements.

2. The interior light operation requirements of § 121.310(d) do not apply in the final rule to nontransport category airplanes certificated after December 31, 1964, since the requirements of § 121.310 (c) and (h) apply only to transport category airplanes.

3. The requirement for an illuminated exit operating handle (§ 121.310(e)) remains as proposed. The compliance date for retrofit requirements for 10- to 19-seat airplanes is 2 years after publication of the final rule.