

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 121**

[Docket No. 27219; Notice No. 93-2]

RIN 2120-AD74

Protective Breathing Equipment

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This notice proposes to revise the Federal Aviation Regulations (FAR) governing portable protective breathing equipment (PBE) required for crewmembers' use in combatting in-flight fires. In response to a petition from the Air Transport Association (ATA), the FAA proposes, for cargo-only operations, to reduce the number of portable PBE units that are required for the cargo area of the airplane to one unit. For operators of passenger-carrying airplanes, the proposal would eliminate the need for PBE units for cargo compartments and also clarify that a separate PBE unit is required for each required hand fire extinguisher. Lastly, this notice would eliminate the requirement that PBE units indicate the quantity of the gas supply and that a crewmember check the PBE unit to see that it is fully charged. By eliminating unnecessary costs to carriers, this action should accommodate the needs of the air carrier industry while still protecting public safety.

DATES: Comments must be received on or before May 28, 1993.

ADDRESSES: Comments on the proposals may be delivered or mailed in triplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC-10), Docket No. 27219, 800 Independence Avenue, SW., Washington, DC 20591. All comments must be marked "Docket No. 27219." Comments may be examined in the Rules Docket, room 915G, weekdays between 8:30 a.m. and 5 p.m., except on Federal holidays.

FOR FURTHER INFORMATION CONTACT: Gary Davis, Project Development Branch, AFS-240, Air Transportation Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-8096.

SUPPLEMENTARY INFORMATION:**Comments Invited**

Interested persons are invited to participate in this rulemaking by

submitting written data, views, or arguments as they may desire. Comments relating to the potential economic, environmental, energy, or federalism impact of the proposals contained in this notice are also invited.

The comments should identify the regulatory docket or notice number and should be submitted in triplicate to the Rules Docket address specified above. All comments received on or before the closing date for comments will be considered by the Administrator before action is taken on the proposed amendments, and the proposals contained in this notice may be changed in light of comments received. All comments received, as well as a report summarizing any substantive public contact with FAA personnel on this rulemaking, will be filed in the docket. The docket is available for public inspection both before and after the closing date for submitting comments. The FAA will acknowledge receipt of a comment if the commenter submits with the comment a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 27219." When the comment is received, the postcard will be dated, time stamped, and returned to the commenter.

Availability of the NPRM

Any person may obtain a copy of this NPRM by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Inquiry Center, APA-430, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-3484. Requests should be identified by the NPRM number or docket number of this proposed rule. Persons interested in being placed on a mailing list for future proposed rules should also request a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

Background

The PBE requirements that specifically apply to part 121 certificate holders are found in § 121.337 of the FAR (14 CFR 121.337). The current form of this regulation was established by FAR Amendment No. 121-193 (52 FR 20956; June 3, 1987), which became effective on July 6, 1987, and FAR Amendment No. 121-212 (55 FR 5551; February 15, 1990).

The PBE required by § 121.337 fall into two categories. The first such category consists of PBE for use by flight crewmembers (i.e., pilots, flight engineers, and flight navigators) at their assigned duty stations on the flight

deck. See § 121.337(b)(8). These units may be either fixed or portable; the important thing is that they be easily accessible for immediate use by the flight crewmembers at their duty stations. This type of PBE must be approved to meet the standards in Technical Standards Order (TSO) C-99.

The second category of required PBE, the subject of this NPRM, consists of portable PBE units which are intended for use by all crewmembers (i.e., not just pilots, flight engineers, and flight navigators, but flight attendants also) when they investigate and combat fires throughout the aircraft. See § 121.337(b)(9). This type of PBE must be approved to meet the standards in TSO C-116 and is identified as "portable PBE."

This NPRM deals with both cargo-only operations and passenger-carrying operations. In regard to cargo-only operations, this NPRM discusses the following issues:

(1) Should the regulations continue to require portable PBE units in the cargo area of airplanes that carry only cargo, or are the PBE units on the flight deck sufficient?

(2) If PBE is still needed in the cargo area of cargo-only operations, should the regulations continue to require a separate PBE unit for each individual Class A, B, or E cargo compartment?

As for passenger-carrying operations, this NPRM discusses the following issues:

(1) Should one portable PBE unit be required for each hand fire extinguisher in the passenger compartments of transport category airplanes, or should it be permissible to have one PBE for every two hand fire extinguishers as long as both of the fire extinguishers are within 3 feet of the PBE?

(2) Should the regulations require that there be portable PBE units in the cargo areas of passenger-carrying operations in addition to those in the passenger compartments?

Cargo-Only Operations

Section 121.337(b)(9)(i) requires that one PBE unit with a portable breathing gas supply be easily accessible and conveniently located for immediate use in each Class A, B, and E cargo compartment that is accessible to crewmembers in the compartment during flight. (For definitions of the various classes of cargo compartments, see 14 CFR 25.857).

Under § 121.337(b)(9)(i), a separate PBE unit is required for each Class A, B, and E cargo compartment; thus, if there are a total of seven such compartments, then seven portable PBE units would be required under the current provision.

On behalf of six member airlines operating cargo-only aircraft, ATA

petitioned the FAA on August 14, 1989, for a permanent exemption from § 121.337(b)(9)(i). In its petition, the ATA argued that the current requirement to install a portable PBE unit for each Class E cargo compartment should be eliminated. (A Class E cargo compartment is one on airplanes used only for the carriage of cargo. See § 25.857(e), containing this and further requirements for a compartment to be classified as a Class E cargo compartment.)

In support of its petition, the ATA argued that Class E cargo compartments are generally inaccessible in flight and that established crewmember procedures are to land the aircraft as soon as possible and to combat a fire in the compartment only as a last resort. According to the ATA, the portable PBE unit on the flight deck, as required by § 121.337(b)(9)(iii), would suffice in the unlikely event that a crewmember would have to combat an in-flight fire.

The FAA agreed with the ATA that the PBE requirements for cargo-only airplanes deserved further consideration through the rulemaking process. The agency therefore extended the compliance date for certificate holders operating cargo-only airplanes to install portable PBE units for use in Class A, B, or E cargo compartments from January 31, 1990, to February 18, 1992,¹ and invited interested persons to submit comments on this subject to Docket No. 24792. See FAR Amendment No. 121-212 (55 FR 5548; February 15, 1990), which became effective on February 15, 1990.

The Air Line Pilots Association (ALPA), Airborne Express, and Mid-Pacific Air Corporation responded to the request for public comment set forth in FAR Amendment No. 121-212. Each of the commenters took the position that the portable PBE unit already required on the flight deck by § 121.337(b)(9)(iii) was adequate for investigating and combatting fires in Class E cargo compartments.

The FAA, however, does not agree. While the FAA believes that the current requirement for a separate portable PBE unit for each Class A, B, or E cargo compartment can safely be eliminated, the agency does not agree that the portable PBE unit on the flight deck is sufficient for cargo-only airplanes. Rather, in the FAA's view, safety requires that an additional portable PBE unit be available for possible use in the cargo area of cargo-only airplanes. The

FAA thinks it advisable to continue to require a separate PBE unit for each intended use: One for the flight deck, and one for the cargo compartment. An added benefit is that each of these units can serve as a back-up for the other.

Regarding the location of the second portable PBE unit, the proposed amendment would require that it be located in a position that is approved by the Administrator as appropriate to each airplane and the specific type of operation being conducted. This will ensure that the unit is easily accessible and conveniently located for use in the cargo area of the plane.

If a fire is detected in a Class E cargo compartment, the likely source of this warning would be a smoke or fire detector in the compartment that sets off a warning signal at the pilot or flight engineer station. In this situation, the required PBE unit on the flight deck would be immediately available for a crew member to investigate or fight the fire. On the other hand, if the fire is detected by a means other than the warning system, the person making the discovery would have the PBE unit near the cargo compartment, where the discovery occurred, for immediate availability in fighting the fire.

Passenger-Carrying Operations

This NPRM also addresses several issues concerning PBE requirements for passenger-carrying operations. The first issue involves the number of portable PBE units that are required in passenger compartments of transport category airplanes. In its current form, § 121.337(b)(9)(iv) requires a portable PBE to be located "in each passenger compartment, one located within 3 feet of each hand fire extinguisher required by § 121.309 of this part * * *." At least one air carrier has interpreted this provision to mean that one portable PBE would satisfy the requirement for 2 required hand fire extinguishers as long as both of those fire extinguishers are within 3 feet of the PBE. The FAA never intended such a result as evidenced in the preamble to the final rule. In response to several comments regarding the number of PBE required, the FAA stated that one PBE device at each hand fire extinguisher location required by § 121.309 will provide an adequate level of coverage and will avoid any confusing in locating the equipment since it will be near a hand fire extinguisher. Under the proposed change to the rule, the Agency's original intent would be more clearly reflected.

In the FAA's view, safety requires that each hand fire extinguisher be paired with a separate portable PBE. If only one PBE were required for every 2 required

hand fire extinguishers, then a crewmember attempting to respond to an in-flight fire might obtain a fire extinguisher from one location, but still be forced to proceed to a different location to obtain a PBE unit to use with the fire extinguisher. Since time is of the essence in responding effectively to fire, this could unduly delay the crewmember, resulting in increased danger to the crew and aircraft. To preclude this possibility, the FAA proposes that the rule clearly state that one portable PBE is required for each required hand fire extinguisher. However, if a carrier chooses to provide an additional fire extinguisher in excess of the number of fire extinguishers required by § 121.309, the carrier is not required to provide an additional PBE unit to be paired with it.

The second issue involving passenger-carrying operations is whether the PBE currently required in the cargo areas of passenger-carrying operations can safely be eliminated. The current § 121.337(b)(9)(i), which requires one portable PBE unit "for use in each Class A, B, and E cargo compartment * * * that is accessible to crewmembers in the compartment during flight," applies to both cargo-only and passenger-carrying operations. (Class E cargo compartments can only be found in cargo-only aircraft, since they are expressly defined by § 25.857 as compartments on airplanes used only for the carriage of cargo. In contrast, Class A and B cargo compartments are not so limited and may be found in both cargo-only and passenger-carrying aircraft.)

The proposed amendment would revise § 121.337(b)(9)(i) so that its requirement of portable PBE units for the cargo area of transport category airplanes would no longer apply to passenger-carrying and cargo-only operations alike but would instead be limited to cargo-only operations. Thus, the effect of this amendment would be to eliminate the current requirement of a portable PBE unit for each Class A and B cargo compartment in passenger-carrying airplanes. The FAA believes that this would not compromise safety since the regulation already requires a portable PBE on the flight deck (§ 121.337(b)(9)(iii)) and a portable PBE for each hand fire extinguisher in passenger compartments (§ 121.337(b)(9)(iv)). In the FAA's view, certificate holders should not be required to have additional portable units located in the cargo areas of passenger-carrying planes since there are sufficient numbers of both fire extinguishers and PBE units already located in the passenger compartment to

¹ Exemption No. 5407, issued to Air Transport Association on February 18, 1992, further extended the date of compliance for cargo only carriers until February 18, 1993. Exemption No. 5407A extended the date of compliance until February 18, 1994.

handle any potential in-flight fire in a cargo compartment.

Serviceability of PBE

When § 121.337 was drafted, portable PBE units had quantity gauges or some other means of determining whether the gas supply was fully charged.

In contrast, the newer portable PBE designs approved by the FAA do not have gauges indicating quantity or charge. They do, however, have vacuum seals and/or tamper-evident seals that allow the user to determine whether the gas supply is fully charged. The user is able to determine whether the unit is in a ready-to-use state (fully charged) based upon whether the seal on the newer designs has been broken. The purpose of the quantity gauges and charges on the old design was not specifically to determine the amount of gas in the portable PBE units as it was to allow a user to determine whether the units were fully charged. However, the vacuum seals and tamper-evident seals now replace the quantity gauges and charges, making them unnecessary by accomplishing basically the same objective.

This change in portable PBE design necessitates two changes in the rule. The first proposed change concerns § 121.337(b)(7)(iii), which requires a means for allowing the crew to readily determine, during flight, the quantity of breathing gas in a portable PBE unit. This provision is no longer needed since the newer PBE designs do not have a quantity gauge. The FAA therefore proposes to delete this section and reserve it for later use.

The second proposed change involves § 121.337(c)(2). This provision requires that a designated crewmember check each portable PBE unit before his or her first trip of the day to ensure that it is properly stowed and serviceable, and, for other than chemical oxygen generator systems, that the breathing supply is fully charged. The FAA proposes to delete the words "and, for other than chemical oxygen generator systems, the breathing gas supply is fully charged."

In the FAA's view, these proposed changes in the rule are needed to reflect the changes in portable PBE design; they will not adversely affect safety, since portable PBE units must still meet the standards of TSO C-116 before they will be approved for use.

Economic Assessment

The FAA finds that the set of proposals in this NPRM are not "major" within the meaning of Executive Order 12291 or the DOT Regulatory Policies and Procedures. In regard to cargo-only

operations, the proposed rule would no longer require a separate portable PBE for each Class A, B, and E cargo compartment; instead, it would require only one portable PBE for use in the cargo area of cargo-only airplanes (in addition to the portable PBE already required on the flight deck for use throughout the aircraft).

The proposed rule would eliminate the pending requirement that cargo-only aircraft must have a PBE unit for each of its cargo compartments. An adequate level of safety is met with the existing level of PBE units onboard. Without this proposed rule, the FAA would require about 450 cargo aircraft to add one or more portable PBE units to its onboard equipment. The cost of each unit is approximately \$450. The proposed rule would prevent the imposition of more than \$200,000 in costs. Hence, the proposal relieves the industry of an unnecessary potential cost burden.

As for passenger-carrying operations, the proposed rule does two things. First, it clarifies the present rule so that air carriers understand that the requirement is not met by one portable PBE for every two hand fire extinguishers if those fire extinguishers are within 3 feet of the PBE. Thus, the amended rule would clearly indicate, in accordance with the FAA's original intent, that there must be one portable PBE unit for each required hand fire extinguisher in the passenger compartments. Since the total number of required portable PBE units would not change as a result of this clarification, it yields no costs or benefits to quantify nor any economic consequences to evaluate.

Second, without the proposed rule, the FAA would require a PBE unit within the cargo areas of passenger-carrying planes. Eliminating this requirement should not reduce passenger or crew safety. The PBE equipment in the passenger compartments and on the flight deck would be sufficient to meet all FAA safety requirements. As with the all cargo aircraft, this proposed rule would relieve the airline industry of an unnecessary potential cost.

The FAA has determined that the proposed rule would result in some small cost reduction because it would prevent the imposition of additional costs on the industry resulting from existing requirements for PBE, i.e., the purchase of additional PBE units to refurbish newly acquired aircraft. The FAA, however, has no data on which to estimate this small cost savings. In addition, the FAA has determined that the proposed rule would have a minimal impact on existing airline safety. Because the NPRM would have

minimal effect on existing costs and airline safety, the FAA has not prepared a full regulatory evaluation for the docket. The FAA solicits specific cost savings information from commenters.

International Trade Impact Analysis

The FAA finds that this proposed amendment would have no impact on international trade.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by Government regulations. The RFA requires agencies to specifically review rules that may have a "significant economic impact on a substantial number of small entities."

This NPRM would impact entities regulated by part 121. The FAA's criteria for "a substantial number" are a number which is not less than 11 and which is more than one third of the small entities subject to this rule. For air carriers, a small entity has been defined as one which owns, but does not necessarily operate, nine or fewer aircraft. The FAA's criteria for "a significant impact" are as follows: At least \$4,150 per year for an unscheduled air carrier, \$59,100 per year for a scheduled carrier having airplanes with only 60 or fewer seats, and \$105,700 per year for a scheduled carrier having an airplane with 61 or more seats.

Using these criteria, the FAA has determined, and therefore certifies, that the proposed amendments to § 121.337, if promulgated, would not have a significant economic impact on a substantial number of small entities. None of the proposed amendments would have a significant effect on air carrier costs. Therefore, the FAA has determined that the proposed amendments to § 121.337, if promulgated, would not have a significant economic impact on a substantial number of small entities.

Federalism Implications

The changes proposed by this NPRM would not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of Government. Therefore, in accordance with Executive Order 12612, it is determined that the proposed amendments would not have federalism implications requiring the preparation of a Federalism Assessment

Conclusion

The FAA has determined that the proposals in this amendment are not major under Executive Order 12291 since they would not impose any additional costs. However, because they concern a matter in which there is a substantial public interest, the FAA has determined that this action is significant under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034; February 26, 1979).

The proposed amendments would have little or no impact on trade opportunities for U.S. firms doing business overseas or for foreign firms doing business in the United States. In addition, the amendments, if adopted, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the RFA.

The proposals in this amendment would have no additional economic impact on the public. In fact, in the case of cargo-only operators and passenger-carrying operators with Class A, B, or E cargo compartments, they would relieve costs. The FAA has determined that the expected impact of the amendment is so minimal that it does not warrant a full Regulatory Evaluation.

List of Subjects in 14 CFR Part 121

Air carriers, Air Safety, Air transportation, Airplanes, Aviation safety, Safety, Transportation.

The Proposed Rule

In consideration of the foregoing, the Federal Aviation Administration proposes to amend part 121 of the Federal Aviation Regulations (14 CFR part 121) as follows:

PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

1. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1356, 1357, 1401, 1421-1430, 1472, 1485, and 1502; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

2. Section 121.337 is amended by deleting the text of (b)(7)(iii) and reserving the paragraph; and by revising paragraphs (b)(9)(i), (b)(9)(iv), and (c)(2) to read as follows:

§ 121.337 Protective breathing equipment.

* * * * *

(b) * * *

(7) * * *

(iii) [Reserved]

(9) * * *

(i) One for cargo-only operations, in addition to the requirement of paragraph (b)(9)(iii) of this section. This unit must be located in a position that is approved by the Administrator as appropriate to each airplane and the

specific type of operation being conducted.

* * * * *

(iv) In each passenger compartment, one for each hand fire extinguisher required by § 121.309 of this part, to be located within 3 feet of each required hand fire extinguisher, except that the Administrator may authorize a deviation allowing locations of PBE more than 3 feet from required hand fire extinguisher locations if special circumstances exist that make compliance impractical and if the proposed deviation provides an equivalent level of safety.

(c) * * *

(2) Each item of PBE located at other than a flight crewmember duty station must be checked by a designated crewmember to ensure that it is properly stowed and serviceable. Each certificate holder, in its operations manual, must designate at least one crewmember to perform those checks before he or she takes off in that airplane for his or her first flight of the day.

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Issued in Washington, DC, on March 19, 1993.

William J. White,

Acting Director, Flight Standards Service.

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