

necessary for the Administrator to determine whether the product and its parts conform to the type design;

(c) Except as otherwise authorized by the Aircraft Certification Directorate Manager for the geographic area which the manufacturer is located, for products manufactured more than 6 months after the date of issue of the type certificate, establish and maintain an approved production inspection system that insures that each product conforms to the type design and is in condition for safe operation; and

(d) Upon the establishment of the approved production inspection system (as required by paragraph (c) of this section) submit to the Administrator a manual that describes that system and the means for making the determinations required by § 21.125(b).

[Doc. No. 5085, 29 FR 14568, Oct. 24, 1964, as amended by Amdt. 21-34, 35 FR 13008, Aug. 15, 1970; Amdt. 21-51, 45 FR 60170, Sept. 11, 1980; Amdt. 21-67, 54 FR 39291, Sept. 25, 1989]

**§ 21.125 Production inspection system: Materials Review Board.**

(a) Each manufacturer required to establish a production inspection system by § 21.123(c) shall—

(1) Establish a Materials Review Board (to include representatives from the inspection and engineering departments) and materials review procedures; and

(2) Maintain complete records of Materials Review Board action for at least two years.

(b) The production inspection system required in § 21.123(c) must provide a means for determining at least the following:

(1) Incoming materials, and bought or subcontracted parts, used in the finished product must be as specified in the type design data, or must be suitable equivalents.

(2) Incoming materials, and bought or subcontracted parts, must be properly identified if their physical or chemical properties cannot be readily and accurately determined.

(3) Materials subject to damage and deterioration must be suitably stored and adequately protected.

(4) Processes affecting the quality and safety of the finished product must be accomplished in accordance with ac-

ceptable industry or United States specifications.

(5) Parts and components in process must be inspected for conformity with the type design data at points in production where accurate determinations can be made.

(6) Current design drawings must be readily available to manufacturing and inspection personnel, and used when necessary.

(7) Design changes, including material substitutions, must be controlled and approved before being incorporated in the finished product.

(8) Rejected materials and parts must be segregated and identified in a manner that precludes installation in the finished product.

(9) Materials and parts that are withheld because of departures from design data or specifications, and that are to be considered for installation in the finished product, must be processed through the Materials Review Board. Those materials and parts determined by the Board to be serviceable must be properly identified and reinspected if rework or repair is necessary. Materials and parts rejected by the Board must be marked and disposed of to ensure that they are not incorporated in the final product.

(10) Inspection records must be maintained, identified with the completed product where practicable, and retained by the manufacturer for at least two years.

**§ 21.127 Tests: aircraft.**

(a) Each person manufacturing aircraft under a type certificate only shall establish an approved production flight test procedure and flight check-off form, and in accordance with that form, flight test each aircraft produced.

(b) Each production flight test procedure must include the following:

(1) An operational check of the trim, controllability, or other flight characteristics to establish that the production aircraft has the same range and degree of control as the prototype aircraft.

(2) An operational check of each part or system operated by the crew while in flight to establish that, during