

# ARSA Regulatory Compliance Training—Questions

Part 21: Certification Procedures for Products and Articles Level 1: For anyone working in aviation

## § 21.3 Reporting of failures, malfunctions, and defects.

- (a) The holder of a type certificate (including amended or supplemental type certificates), a PMA, or a TSO authorization, or the licensee of a type certificate must report any failure, malfunction, or defect in any product or article manufactured by it that it determines has resulted in any of the occurrences listed in [paragraph \(c\)](#) of this section.
- (b) The holder of a type certificate (including amended or supplemental type certificates), a PMA, or a TSO authorization, or the licensee of a type certificate must report any defect in any product or article manufactured by it that has left its quality system and that it determines could result in any of the occurrences listed in [paragraph \(c\)](#) of this section.
- (c) The following occurrences must be reported as provided in [paragraphs \(a\)](#) and [\(b\)](#) of this section:
  - (1) Fires caused by a system or equipment failure, malfunction, or defect.
  - (2) An engine exhaust system failure, malfunction, or defect which causes damage to the engine, adjacent aircraft structure, equipment, or components.
  - (3) The accumulation or circulation of toxic or noxious gases in the crew compartment or passenger cabin.
  - (4) A malfunction, failure, or defect of a propeller control system.
  - (5) A propeller or rotorcraft hub or blade structural failure.
  - (6) Flammable fluid leakage in areas where an ignition source normally exists.
  - (7) A brake system failure caused by structural or material failure during operation.
  - (8) A significant aircraft primary structural defect or failure caused by any autogenous condition (fatigue, understrength, corrosion, etc.).
  - (9) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure.
  - (10) An engine failure.
  - (11) Any structural or flight control system malfunction, defect, or failure which causes an interference with normal control of the aircraft for which derogates the flying qualities.
  - (12) A complete loss of more than one electrical power generating system or hydraulic power system during a given operation of the aircraft.
  - (13) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

Note: §§ 21.3(d), (e) and (f) will be covered on a separate training sheet.

**Question 1:** The holder of a type certificate must report any serious failure, malfunction, or defect in any product or article manufactured by it.

- A: True.
- B: False.

**Question 2:** A person obligated to submit an SDR under § 21.3 must do so for any defect resulting in leakage of flammable fluid.

- A: True.
- B: False.

**Question 3:** A person obligated to submit an SDR under § 21.3 must do so for a malfunction resulting in the circulation of noxious gases in the passenger cabin.

- A: True.
- B: False.

**Question 4:** A person obligated to submit an SDR under § 21.3 must do so for a defect resulting in a brake failure caused by a complete hydraulic system loss.

- A: True.
- B: False.

Name and/or Identification \_\_\_\_\_

Clearly Print the Name and/or Identification of the Person Taking the Test

Date \_\_\_\_\_

Date Test was Completed

Score \_\_\_\_\_

Enter as x (number correct) of y (number of questions)

Hours \_\_\_\_\_

Time Credited for Test

Approved by \_\_\_\_\_

Signature of Supervisor or Person Administering Test

# ARSA Regulatory Compliance Training—Answers

Part **21**: Certification Procedures for Products and Articles    **Level 1**: For anyone working in aviation

## § 21.3 Reporting of failures, malfunctions, and defects.

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- (b) The holder of a type certificate (including amended or supplemental type certificates), a PMA, or a TSO authorization, or the licensee of a type certificate must report any defect in any product or article manufactured by it that has left its quality system and that it determines could result in any of the occurrences listed in [paragraph \(c\)](#) of this section.
- (c) The following occurrences must be reported as provided in [paragraphs \(a\)](#) and [\(b\)](#) of this section:
  - (1) Fires caused by a system or equipment failure, malfunction, or defect.
  - (2) An engine exhaust system failure, malfunction, or defect which causes damage to the engine, adjacent aircraft structure, equipment, or components.
  - (3) The accumulation or circulation of toxic or noxious gases in the crew compartment or passenger cabin.
  - (4) A malfunction, failure, or defect of a propeller control system.
  - (5) A propeller or rotorcraft hub or blade structural failure.
  - (6) Flammable fluid leakage in areas where an ignition source normally exists.
  - (7) A brake system failure caused by structural or material failure during operation.
  - (8) A significant aircraft primary structural defect or failure caused by any autogenous condition (fatigue, understrength, corrosion, etc.).
  - (9) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure.
  - (10) An engine failure.
  - (11) Any structural or flight control system malfunction, defect, or failure which causes an interference with normal control of the aircraft for which derogates the flying qualities.
  - (12) A complete loss of more than one electrical power generating system or hydraulic power system during a given operation of the aircraft.
  - (13) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

Note: §§ 21.3(d), (e) and (f) will be covered on a separate training sheet.

**Question 1:** The holder of a type certificate must report any serious failure, malfunction, or defect in any product or article manufactured by it.

A: True.

B: **False.** § 21.3(a) requires TC holders must report failures, malfunctions, or defects determined to have resulted in one of the occurrences listed in § 21.3(c).

**Question 2:** A person obligated to submit an SDR under § 21.3 must do so for any defect resulting in leakage of flammable fluid.

A: True.

B: **False.** § 21.3(c)(6) requires reporting for flammable fluid leakage in areas where an ignition source normally exists.

**Question 3:** A person obligated to submit an SDR under § 21.3 must do so for a malfunction resulting in the circulation of noxious gases in the passenger cabin.

A: **True.** See § 21.3(c)(3).

B: False.

**Question 4:** A person obligated to submit an SDR under § 21.3 must do so for a defect resulting in a brake failure caused by a complete hydraulic system loss.

A: **True.** See § 21.3(c)(12).

B: False.