

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.778

National Policy

Effective Date:
6/2/26

Cancellation Date:
6/2/27

SUBJ: OpSpec/MSpec D104, Additional Maintenance Requirements—Emergency Equipment

1. Purpose of This Notice. This notice provides clarification concerning the maintenance documents and limitations and provisions for items of emergency equipment required to be documented in operations specification (OpSpec)/management specification (MSpec) D104. In addition, this notice announces nonmandatory revisions to the OpSpec/MSpec D104 templates to be issued within 180 days from the effective date of this notice. This notice contains guidance that is pertinent to Title 14 of the Code of Federal Regulations (14 CFR) §§ 91.1015(a)(5) and 119.49(c)(9).

2. Audience. The primary audience for this notice includes the Flight Standards Safety Assurance offices' principal inspectors (PI) assigned to certificate holders (CH)/program managers who maintain their aircraft under 14 CFR §§ 91.1109 and 135.411(a)(1). The secondary audience includes the Federal Aviation Administration's (FAA) Safety Standards and Foundational Business offices.

3. Where You Can Find This Notice. You can find this notice on the My FAA employee website at https://employees.faa.gov/tools_resources/orders_notices and the Dynamic Regulatory System (DRS) at <https://drs.faa.gov>. Operators and the public can find this notice on the FAA's website at https://www.faa.gov/regulations_policies/orders_notices and DRS.

4. Explanation of Changes.

a. Clarification of OpSpec/MSpec D104 Guidance. The Aircraft Maintenance Division (AFS-300) is providing clarification for OpSpec/MSpec D104 by revising its guidance in FAA Order 8900.1, Volume 3, Chapter 18, Section 6, Parts D and E Maintenance Operations Specifications/Management Specifications/Letters of Authorization. This revision is to assist and clarify for PIs and CHs/program managers what items of emergency equipment must be listed in D104. The previous version of the D104 guidance in Order 8900.1, Volume 3, Chapter 18, Section 6 stated, "Certificate holders/program managers are only required to list emergency equipment that is maintained to limitations and provisions other than what the manufacturer's maintenance documents recommend." This led to the misunderstanding that if an item of emergency equipment is in a manufacturer's maintenance document, then the item of emergency equipment did not have to be listed in D104. AFS-300 has determined this wording is contrary to 14 CFR §§ 91.1015(a)(5), 119.49(c)(9), and 135.421.

b. Revisions to OpSpec/MSpec D104 Templates. In addition, AFS-300 has issued nonmandatory revisions to the OpSpec/MSpec D104 templates (see Appendices A, B, and C), incorporating the following changes:

- (1) Changing the paragraph lettering for consistency purposes.
- (2) Changing the wording in subparagraph b from “shall” to “must.”
- (3) Revising and adding the following wording: “documents or the limitations and provisions or both listed in Table 1” to subparagraph b and subparagraph b(1) for consistency.
- (4) Revising the naming of the table to “Table 1.”
- (5) In addition to the changes listed in subparagraphs b(1)–(4) above, the following additional changes were made to MSpec D104.
 - (a) Renaming to “MSpec D104, Emergency Equipment.”
 - (b) Removing “nine seats or less” from subparagraph a. Title 14 CFR part 91 subpart K (part 91K) does not have a nine seats or less passenger requirement.
 - (c) Removing additional maintenance wording from subparagraph a. Title 14 CFR part 91K regulations do not specify additional maintenance compared to 14 CFR § 135.421.

5. Background.

a. Information Required to Be Entered into D104. AFS-300 has recently responded to questions from Flight Standards offices on what exactly needs to be entered into OpSpec/MSpec D104. OpSpec/MSpec D104 requires CHs/program managers to list all items of emergency equipment required by the operating rule in the OpSpec/MSpec D104 Table 1. Within the table, CHs/program managers must list each item of installed emergency equipment, the maintenance document containing the limitations and provisions, and the specific limitations and provisions identified in the associated maintenance document.

b. Emergency Equipment Requirements Governed by Other Federal Regulations. Certain items of emergency equipment may not have an associated manufacturer’s document but are governed by other Federal regulations that are not explicitly listed under 14 CFR. In these cases, 14 CFR provides the regulatory authority to require operators to meet the additional specifications in OpSpec/MSpec D104. However, the specific technical standards that operators must adhere to are found under other Federal regulations, such as Title 49 of the Code of Federal Regulations (49 CFR). These items include:

- (1) Oxygen (O₂) bottles and liquid fire extinguishers.
- (2) Fire extinguishers.
- (3) Military-manufactured equipment.

- (4) Foreign-manufactured equipment.
- (5) Other equipment as specified.

6. Regulatory Requirements. Regulatory requirements for listing all items of emergency equipment in OpSpec/MSpec D104 include:

a. Title 14 CFR § 119.49(c)(9). Title 14 CFR § 119.49(c)(9) requires 14 CFR part 135 CHs to obtain OpSpecs to comply with 14 CFR § 135.421 for additional maintenance requirements.

b. Title 14 CFR § 119.49(c)(13). Title 14 CFR § 119.49(c)(13) explicitly authorizes the inclusion of any other items the Administrator determines to be necessary.

c. Title 14 CFR § 135.421(a). Title 14 CFR § 135.421(a) requires an operator of an aircraft type certificated for nine seats or less to comply with the manufacturer's recommended maintenance program or a program approved by the Administrator for each:

- Aircraft engine.
- Propeller.
- Rotor.
- Item of emergency equipment.

Note: Title 14 CFR § 135.421(a) establishes additional maintenance requirements by mandating that a CH follow either the manufacturer's maintenance program or a program approved by the Administrator. Since 14 CFR § 135.421(a) explicitly mandates a maintenance program for "each item of emergency equipment," then all emergency equipment items must be listed in OpSpec D104 to ensure compliance.

d. Title 14 CFR § 135.421(b). Title 14 CFR § 135.421(b) defines a manufacturer's maintenance program as one which is contained in the maintenance manual or maintenance instructions as set forth by the manufacturer for the following:

- Aircraft.
- Aircraft engine.
- Propeller.
- Rotor.
- Item of emergency equipment.

e. Title 14 CFR § 91.1015(a)(5). Title 14 CFR § 91.1015(a)(5) requires 14 CFR part 91K program managers to obtain MSpecs for the inclusion of time limitations, or standards for determining time limitations, for overhauls, inspections, and checks for airframes, engines, propellers, rotors, appliances, and emergency equipment of aircraft. MSpecs D101 through D104 are intended to meet the requirement of 14 CFR § 91.1015(a)(5).

Note: If the program manager elects to maintain the aircraft under a Continuous Airworthiness Maintenance Program (CAMP) per 14 CFR § 91.1411, the

program manager would need to obtain MSPEC D089 to meet the requirements of 14 CFR § 91.1015(a)(5). MSPECs D101 through D104 would not apply.

f. Title 14 CFR § 91.1015(a)(10). Title 14 CFR § 91.1015(a)(10) explicitly authorizes the inclusion of any other information the Administrator determines to be necessary.

g. Title 14 CFR § 91.1109. Title 14 CFR § 91.1109 requires program managers to establish an aircraft inspection program for each make and model (M/M) program aircraft and ensure each aircraft is inspected in accordance with that inspection program.

h. Title 14 CFR § 91.1109(a)(1). Title 14 CFR § 91.1109(a)(1) requires program managers to include in their written inspection program instructions and procedures for the conduct of inspections for the particular M/M aircraft, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, engines, propellers, rotors, and appliances, including survival and emergency equipment required to be inspected.

7. Guidance.

a. Order 8900.1, Volume 3, Chapter 18, Section 6. In conjunction with the revisions to the D104 templates, the FAA has updated policy in Order 8900.1, Volume 3, Chapter 18, Section 6.

(1) OpSpec/MSpec D104 Authorization. This OpSpec/MSpec applies to all CHs/program managers maintaining aircraft under 14 CFR § 91.1109(b)(1) and (3) using a 14 CFR part 91K approved inspection program (AIP) and 14 CFR § 135.411(a)(1). This includes aircraft subject to an Approved Aircraft Inspection Program (AAIP) under 14 CFR § 135.419 (refer to Order 8900.1, Volume 2, Chapter 4, The Certification Process—Title 14 CFR Part 135, or Volume 3, Chapter 38, Evaluate 14 CFR Part 135 (Nine Seats or Less) Approved Aircraft Inspection Program).

(2) Additional Maintenance Requirements—Emergency Equipment. Title 14 CFR § 119.49(c)(9) requires CHs to obtain OpSpecs for additional maintenance requirements. Emergency equipment items required by the applicable operating rules are the only items to be listed in D104; other items of equipment required by 14 CFR § 119.49(c)(9) must be authorized in other OpSpecs/MSPECs such as D101, D102, and D103.

(3) Emergency Equipment. Title 14 CFR § 91.1015(a)(5) requires 14 CFR part 91K program managers to obtain MSPECs for the inclusion of time limitations, or standards for determining time limitations, for overhauls, inspections, and checks for airframes, engines, propellers, rotors, appliances, and emergency equipment of aircraft. MSPECs D101 through D104 are intended to meet the requirement of 14 CFR § 91.1015(a)(5).

Note: If the program manager elects to maintain the aircraft under a CAMP per 14 CFR § 91.1411, the program manager must obtain MSPEC D089 to meet the requirement of 14 CFR § 91.1015(a)(5). MSPEC D101 through D104 would not apply.

(4) Emergency Equipment Items. CHs/program managers must list each item of installed emergency equipment as required by 14 CFR §§ 91.1015(a)(5) and 119.49(c)(9). Certain items of emergency equipment must meet the additional specifications listed in OpSpec/MSpec D104. These items include:

- (a) O₂ bottles and liquid fire extinguishers.
- (b) Fire extinguishers.
- (c) Military-manufactured equipment.
- (d) Foreign-manufactured equipment.
- (e) Other equipment as specified.

Note: Items in subparagraphs (a)–(e) above may not have an associated manufacturer’s document but are governed by other Federal regulations that are not explicitly listed under 14 CFR. In these cases, 14 CFR provides the regulatory authority to require operators to meet the additional specifications listed in OpSpec/MSpec D104. However, the specific technical standards that operators must adhere to are found under other Federal regulations. For example, D104 subparagraph b(1)(a), Oxygen (O₂) Bottles and Liquid Fire Extinguishers, references 49 CFR § 180.209, which lists the requirements for requalification of specification cylinders. Refer to Order 8900.1, Volume 3, Chapter 57, Section 1, Maintenance Requirements for Pressure Cylinders. Other CFR titles can be located at <https://www.ecfr.gov/>.

Note: There will be differences for each CH/program manager for the emergency equipment listed in OpSpec/MSpec D104, depending on the items of emergency equipment installed on their aircraft.

(5) Maintenance Document. This contains the additional maintenance requirements. For example, D104 subparagraph b(1)(a) states, “inspections, hydrostatic tests, and life limits of pressure vessels manufactured under a Department of Transportation (DOT) specification are accomplished as set forth in 49 CFR Part 180, § 180.209, as amended.”

(a) If the aircraft or part manufacturer’s maintenance documents incorporate the 49 CFR § 180.209 specifications, then the CH/program manager would list the manufacturer’s maintenance documents in the “Maintenance Document” column and the specifications/limitations would be listed in the “Limitations and Provisions” column.

(b) If the aircraft or part manufacturer’s maintenance documents do not incorporate the 49 CFR § 180.209 specifications, then the CH/program manager would list the 49 CFR § 180.209 reference in the “Maintenance Document” column and the specifications listed in 49 CFR § 180.209 would be listed in the “Limitations and Provisions” column.

(c) If the aircraft or part manufacturer’s maintenance documents incorporate additional specifications/limitations on top of the 49 CFR § 180.209 specifications, then those

additional specifications/limitations would be listed along with the 49 CFR § 180.209 specifications in the “Limitations and Provisions” column.

(d) If the aircraft or part manufacturer’s maintenance documents incorporate the 49 CFR § 180.209 specifications but were changed by the manufacturer to be more restrictive, then the more restrictive of the specifications would be required to be listed in the “Limitations and Provisions” column.

(6) Limitations and Provisions. This contains the intervals/frequency of the additional maintenance requirements (in hours, cycles, calendar time, etc.).

Note: It is not acceptable to reference only the manufacturer’s manual/document in the “Limitations and Provisions” column of D104 Table 1. The interval and frequency must be listed in the table.

b. Sample D104 Templates. Appendices to this notice show the revised templates. This notice contains the following:

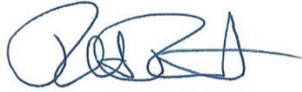
Appendix	Authorizing Document	Paragraph	Applicable to 14 CFR Part
A	OpSpec	D104	135
B	OpSpec	D104	121/135
C	MSpec	MD104	91K

8. Action.

a. General. This notice requires action by the PIs assigned to CHs/program managers that maintain their aircraft under 14 CFR § 91.1109 or § 135.411(a)(1). The PIs should provide a copy of this notice to their assigned CHs/program managers. Within 180 days from the effective date of this notice, PIs must coordinate with their assigned CHs/program managers and verify that OpSpec/MSpec D104 is populated correctly with all emergency equipment required by operating rule. If discrepancies are noted, update the nonmandatory revision of the applicable OpSpec/MSpec D104 with the correct information and document accordingly in the Safety Assurance System (SAS) per Order 8900.1, Volume 10, Safety Assurance System Policy and Procedures.

b. For PIs With Program Managers Issued MSpec D104. Within 180 days from the effective date of this notice, reissue MSpec A004, Summary of Special Authorizations and Limitations, to update the authorizing statement associated with the revised D104.

9. Disposition. We will incorporate the information in this notice into Order 8900.1 before the notice expires. Direct questions concerning the information in this notice to AFS-300 at 9-AWA-AFS-300-Correspondence@faa.gov.

A handwritten signature in blue ink, appearing to be 'R. Reckert', with a long horizontal stroke extending to the right.

Robert Reckert for
Hugh Thomas
Executive Director, Flight Standards Service

**Appendix A. Sample OpSpec D104, Additional Maintenance Requirements—
Emergency Equipment: 14 CFR Part 135**

a. The certificate holder is authorized to use the following emergency equipment in its 14 CFR Part 135 operations of aircraft type certificated for nine seats or less, provided the applicable aircraft have met the additional maintenance requirements of Part 135, § 135.421.

b. Emergency Equipment. Each item of installed emergency equipment must be maintained in accordance with the manufacturer’s maintenance documents or the limitations and provisions or both listed in Table 1.

(1) In addition to the maintenance documents or the limitations and provisions or both listed in Table 1, the following specifications must be followed for the applicable listed emergency equipment items and documented in Table 1:

(a) Oxygen (O₂) Bottles and Liquid Fire Extinguishers. Inspections, hydrostatic tests, and life limits of pressure vessels manufactured under a Department of Transportation (DOT) specification are accomplished as set forth in 49 CFR Part 180, § 180.209, as amended.

(b) Fire Extinguishers. Inspections, hydrostatic tests, and life limits of portable fire extinguishers are accomplished as set forth in 46 CFR Subparts 71.25 and 162.028, as amended.

(c) Military-Manufactured. Pressure vessels manufactured under a MIL-SPEC are maintained in accordance with the applicable military specifications.

(d) Foreign-Manufactured. Foreign-manufactured pressure cylinders are maintained in accordance with the applicable foreign manufacturer’s specifications.

(e) Other. Pressure cylinders not manufactured under DOT, foreign, or U.S. MIL-SPECs are maintained in accordance with the applicable aircraft manufacturer’s specifications.

Table 1 – Emergency Equipment

Emergency Equipment Items	Maintenance Document	Limitations and Provisions

**Appendix B. Sample OpSpec D104, Additional Maintenance Requirements—
Emergency Equipment: 14 CFR Part 121/135**

a. The certificate holder is authorized to use the following emergency equipment in its 14 CFR Part 135 operations of aircraft type certificated for nine seats or less, provided the applicable aircraft have met the additional maintenance requirements of Part 135, § 135.421.

b. Emergency Equipment. Each item of installed emergency equipment must be maintained in accordance with the manufacturer's maintenance documents or the limitations and provisions or both listed in Table 1.

(1) In addition to the maintenance documents or the limitations and provisions or both listed in Table 1, the following specifications must be followed for the applicable listed emergency equipment items and documented in Table 1:

(a) Oxygen (O₂) Bottles and Liquid Fire Extinguishers. Inspections, hydrostatic tests, and life limits of pressure vessels manufactured under a Department of Transportation (DOT) specification are accomplished as set forth in 49 CFR Part 180, § 180.209, as amended.

(b) Fire Extinguishers. Inspections, hydrostatic tests, and life limits of portable fire extinguishers are accomplished as set forth in 46 CFR Subparts 71.25 and 162.028, as amended.

(c) Military-Manufactured. Pressure vessels manufactured under a MIL-SPEC are maintained in accordance with the applicable military specifications.

(d) Foreign-Manufactured. Foreign-manufactured pressure cylinders are maintained in accordance with the applicable foreign manufacturer's specifications.

(e) Other. Pressure cylinders not manufactured under DOT, foreign, or U.S. MIL-SPECs are maintained in accordance with the applicable aircraft manufacturer's specifications.

Table 1 – Emergency Equipment

Emergency Equipment Items	Maintenance Document	Limitations and Provisions

Appendix C. Sample MSpec MD104, Emergency Equipment: 14 CFR Part 91K

a. The program manager is authorized to use the following emergency equipment in its operations, provided the applicable aircraft have met the requirements of 14 CFR Part 91, § 91.1015(a)(5).

b. Emergency Equipment. Each item of installed emergency equipment must be maintained in accordance with the manufacturer’s maintenance documents or the limitations and provisions or both listed in Table 1.

(1) In addition to the maintenance documents or the limitations and provisions or both listed in Table 1, the following specifications must be followed for the applicable listed emergency equipment items and documented in Table 1:

(a) Oxygen (O₂) Bottles and Liquid Fire Extinguishers. Inspections, hydrostatic tests, and life limits of pressure vessels manufactured under a Department of Transportation (DOT) specification are accomplished as set forth in 49 CFR Part 180, § 180.209, as amended.

(b) Fire Extinguishers. Inspections, hydrostatic tests, and life limits of portable fire extinguishers are accomplished as set forth in 46 CFR Subparts 71.25 and 162.028, as amended.

(c) Military-Manufactured. Pressure vessels manufactured under a MIL-SPEC are maintained in accordance with the applicable military specifications.

(d) Foreign-Manufactured. Foreign-manufactured pressure cylinders are maintained in accordance with the applicable foreign manufacturer’s specifications.

(e) Other. Pressure cylinders not manufactured under DOT, foreign, or U.S. MIL-SPECs are maintained in accordance with the applicable aircraft manufacturer’s specifications.

Table 1 – Emergency Equipment

Emergency Equipment Items	Maintenance Document	Limitations and Provisions