DER Handbook
Order 8110.37
Revision E

Major Changes
General Changes

- Order Signed: March 30, 2011
- Compliance Date: May 30, 2011
- Revision level rolled from Rev D to Rev E
- New Order format includes
  - Appendix format change from 1, 2, 3, … to A, B, C,…
  - No paragraph references on bottom of each page
Organization Change

References to:
AIR-140, Delegation and Airworthiness Programs Branch

Changed to:
AIR-110, Engineering Procedures Office
– AIR-112, Delegation Procedures Branch, has responsibility for delegation programs
Order Number Change

References to:


Changed to:

Acoustical DERs (2-5)

- Clarified DER responsibility
- Acoustical DERs may witness and approve:
  - Noise certification tests
  - Noise data
  - Noise analysis
  - Test results
- Acoustical DERs may only recommend approval for:
  - Test plans
  - Final noise certification compliance reports
Special Authorizations
(2-6, Appendix C)

• Clarified the use of Special Authorizations
  – ACOs may have their own specific requirements for
    submitting a request for Special Authorization
  – Special Authorization must not be used to grant a
    time-limited expansion of authority. Use 8100.8
    requirements.

• Removed Special Authorization Request
  Form from Appendix C.
  – ACO may choose to still use it, but may
    use other methods as well
Repair Specification DER (2-6, 3-6)

- Added authority and functions Repair Specification DER (RS-DER)
  - Authority is a subset of Special Delegation for Major Repairs
  - “Special – Manage and Approve Repair Specifications”
- Added new paragraph 3-6 to describe RS-DER Functions
Repair Specification DER (4-13)

- Added new paragraph 4-13 for definition of repair specification and responsibilities, functions, and limitations of RS-DER
  - RS describes what, when, and how for a specific repair
  - RS is for non-serial number related multiple-use major repairs, not from Design Approval Holder (DAH)
  - RS must address Instructions for Continued Airworthiness (ICA)
  - RS-DER is a management function similar to the ACO project manager
  - RS-DER may manage and RS project with critical or life-limited parts
Repair Specification (Appendix C)

- Inserted a new Figure 5 in Appendix C to include an example of a Repair Specification Title/Signature Page.
Vintage DER (2-6)

- **Added authority for vintage DERs**
  - *One reference to Vintage DER in this order - 2-6.a.(2) Note 1*

- **Vintage DER is a subset of Major Repairs/Major Alterations Special Delegation**
  - *Qualifications found in 8100.8D*
SW/AEH Authority for TSOA (2-6, 2-7, Appendix C)

  - Removed special delegation for SW/AEH TSOA in section 2-6
  - Revised explanation of DER’s potential role in TSOA in section 2-7.c.(5).
  - Removed samples of 8110-3 that reference TSOA from Appendix C
DERs and AMOC (2-6)

- DAH structural DER can approve AMOC with structural aspects
  - *Structural ADs*
  - *Other areas where structure may be affected*

- DERs must follow same procedures as FAA engineers – coordinate with AEG.
DERs and AMOC (2-7)

• Defined normal use of an AMOC for single aircraft only
  – DER may approve global AMOC when pattern is demonstrated.

• Included types of AMOCs that cannot be delegated

• DER may approve alternate inspection method, threshold, interval for AD
DERs and AMOC (3-2, Appendix C)

- Distribution of form 8110-3 for AMOC
  - Original to ACO responsible for the AD
  - Copy to managing office

- Added an example in Appendix C for purpose of data on Form 8110-3 when supporting a global AMOC.

8. PURPOSE OF DATA
   In support of global AMOC (number).
Restricted Category Aircraft (2-7)

- Added a new paragraph in section 2-7 to address DER limitations for restricted category aircraft
  - Must coordinate with ACO to agree on a certification basis to be used
Other DER Authority (2-7)

- Clarified that DERs have authority for predecessor regulations and other airworthiness requirements

- Clarified the meaning of DER limitations when finding compliance to non-CFR requirements
  - Must be identified in DER’s authority
  - Includes standards for primary category, airship, JAA, and EASA-VLA
Use of DER Number (3-1)

• Clarified the appropriate to use of a DER number with the DER signature
  – Used for:
    • Certification Documents and Data
    • Certification Plans
    • Conformity Inspection Records
    • Repair Specifications
  – Not used for:
    • Reports
    • Drawings
    • Service documents
    • Letters
Separation of DER Duties (3-1)

- Clarified separation of duties between DERs and Organization Designation Authorization (ODA) unit members
  - DER and ODA Unit Member functions are separate.
  - DERs do not support ODA projects
    - Except TC holder’s DER supporting MRA ODA
  - ODA work cannot count for DER renewal
    - ACO has some discretion
DER Candidates (3-2, Appendix C)

- Removed candidate form from Appendix C

- Added text to section 3-2 to explain how DER candidates may use Form 8110-3
  - Candidate prepares 8110-3 for signature of authorized DER and adds note about candidate review of data.
  - Candidates prepares 8110-3 with note about review of data and submits directly to ACO
Electronic Form 8110-3 (3-2)

• Added a paragraph detailing the use of electronic versions of Form 8110-3 and electronic signatures
  – Electronic Form 8110-3 available on web
  – Must be the same as printed form
  – Electronic signature may be used by agreement with managing ACO
DERs and Conformity (4-1)

• Clarified DER’s role in the request for conformity
  – DERs may submit 8120-10, Request for Conformity
  – 8110-3 not used to “approve” 8120-10
  – Reference Order 8110.44
  – DERs should use NACIP for conformity requests
**DERs and Test Witnessing (4-4)**

- Clarified the authority of a DER for witnessing tests
  - 8110-3 is not appropriate for test witnessing – no finding of compliance
  - DER may record their participation on test results
  - DER may not further delegate test witnessing
PMA Identicality (4-11)

- Clarified DER authority for findings of identicality:
  - Critical or life-limited parts -
    - DER may only recommend approval
  - Additional requirement for engine life-limited parts -
    - DER must contact ACO before recommending approval
Repairs and Alterations (4-12)

- Added description of multiple use repair and repair specification authority.
  - Non-RS-DER DERs may approve data to support Repair Specification
  - “Future use” alterations approved via STC or ATC
  - “Future use” repairs approved via Repair Specification

- Clarified the DER’s prohibition against findings of compliance to a TSO for repairs.
  - Repairs to TSO articles must still be approved to the applicable airworthiness requirements.
Repairs and Alterations (4-12)

- Clarified the DER’s role in Instructions for Continued Airworthiness (ICA) acceptance for major repairs and alterations
  - Some DERs may approve ICA for Electrical Wiring Interconnect Systems (EWIS)
  - Otherwise, no DER may accept ICA.

- Removed requirement to coordinate with Flight Standards for repairs and alterations
Human Factors (4-16)

- Added new section 4-16 describing DER’s responsibility when approving data with human factors implications.
  - No human factors authority for DERs
  - Should discuss issues with ACO
Data approval in support of 4 CFR 21.8(d) (4-17)

- Added new section 4-17 for data approval in support of 14 CFR 21.8(d).

  - “If an article is required to be approved under this chapter, it may be approved--
    (a) Under a PMA;
    (b) Under a TSO;
    (c) In conjunction with type certification procedures for a product; or
    (d) In any other manner approved by the FAA.”

  - Special authority needed
  - Approvals must be coordinated with FAA Headquarters
Commercial Parts. (4-18)

- Added new section for Commercial Parts.
  - FAA approved Commercial Parts List (CPL)
  - DAH is TC/STC and some PMA holders
  - DERs may not approve the original issuance or changes to the CPL
  - DERs may approve data in support of a commercial part replacement alternative
  - AC 21-45, Commercial Parts.
Form 8110-3 Changes (Appendix C)

- Revised form title from:
  “Statement of Compliance with the Federal Aviation Regulations”
  To:
  “Statement of Compliance with Airworthiness Standards”

- Added block numbers on form

- Revised wording in certification section
  “Part 183 of the Federal Aviation Regulations”
  To:
  “14 CFR Part 183”
Multiple 8110-3 Signatures (Appendix C)

- Added a note and examples in appendix C for guidance on how to list approved data when more than one DER signs a form 8110-3.

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<thead>
<tr>
<th>6. IDENTIFICATION</th>
<th>7. TITLE</th>
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<tr>
<td>ABC Manual 1234 Rev B. 10/20/03</td>
<td>Converter Regulatory Installation Manual (approved by DER[name])</td>
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<tr>
<td>1000047 Revision A Dated 10/22/03</td>
<td>Drawing - Converter Regulator Cooling Mod. (approved by DER[name])</td>
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<tr>
<td>1000048 Revision C Dated 10/22/03</td>
<td>Drawing - Scoop Assy. - Converter Regulator Cooling (approved by DER[name])</td>
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NOTE: This approval covers electrical details only
Compliance Date

- Compliance Date for this Order: May 30, 2011