# SUPPLEMENTAL INFORMATION

# DER-ELECTRICAL SYSTEMS ENGINEERING

March 2025

This document must be used to provide supplemental information to support eligibility and qualifications for appointment as a FAA Designated Engineering Representative (DER) – Electrical Systems.

Describe your experience that pertains to qualifications for a DER-Electrical Systems appointment. Please be detailed in your responses in order to support your application. When seeking authority for multiple FAR parts, ensure that your responses account for the authority in each.

Refer to FAA Order 8000.95 Designee Management System, Volume 9 for specific requirements. You may attach additional pages and refer to them as necessary verses including all explanations in the provided boxes. For example, you may attach a resume’ that describes your work and education history and make reference to the attached resume’ from the appropriate boxes.

You can access the header of the next page with a double mouse click in the header area. Enter your name and date there and it will populate that information on each subsequent page.

Return to the body of the document by double mouse click in the body.**Common Information**

1. Do you have the basic engineering knowledge appropriate to the designation being sought, as demonstrated by 8 years of progressively responsible engineering experience? (See below.) Yes No

Note: An engineering degree may be substituted for up to 4 years of maximum credit.

Note: If no engineering degree, you may substitute 40 credit hours of successfully completed course work in engineering or related curriculum for 1 year of experience, up to 4 years of maximum credit.

1. Please provide three verifiable character references to substantiate that you possess integrity and sound judgement.

Name/phone/email

#1

#2

#3

1. Please provide three verifiable technical references to substantiate that you possess the required technical expertise for the areas of delegation being sought. (These may be the same individuals used for your character references.)

Name/phone/email

#1

#2

#3

1. Do you have significant experience in a direct working relationship with the FAA? Yes No  
   Describe your significant experience in a direct working relationship with the FAA office in which you are seeking appointment? (Your experience must be related to the processing of engineering data pertaining to FAA approval of the type in which you are seeking appointment. Your range of activities in obtaining FAA approvals must be adequate to enable the FAA to determine that you are cognizant of the technical and procedural requirements involved in obtaining such approvals and that you are well-versed in all pertinent regulations.)

Response:

1. If applying as a company DER, do you report to a level of management that enables you to administer approvals without undue pressure or influence?Yes No  N/A   
     
   Describe what level of company management you report to and how that is sufficient to enable you to administer the pertinent regulations effectively without undue pressure or influence on behalf of the FAA.

Response:

1. Do you have knowledge of regulatory requirements and problems related to civil aircraft approvals? Yes No  
   Describe your knowledge of regulatory requirements and problems related to civil aircraft approvals, and how you gained this knowledge.

Response:

1. Describe your direct experience in the general certification process.

Response:

1. Do you have a thorough working knowledge of the specific 14 CFR parts and predecessor regulations for which the designation is requested? Yes No   
     
   If yes, please describe how you acquired your knowledge.

Response:

1. Have you been in a responsible position in connection with the type of work for which designation sought? Yes No  
     
   If yes, please describe.

Response:

1. Are you cognizant of related technical requirements and problems related to civil aircraft approval? Yes No

If yes, please describe how you acquired your knowledge.

Response:

1. Have you completed the DER Initial Training? Yes No

(You must successfully complete DER Initial training prior to submitting your application. Please refer to the engineering designee training information website. Attach evidence of completion.)

**Discipline Specific Technical Information**

1. Are you applying for Software authority? Yes No

If yes, you must also provide evidence of your experience, knowledge and capabilities for the requested software development assurance level as described in FAA Order 8000.95 Volume 9, Chapter 2, Section 4, Paragraph b(3). Please ensure that your response is clear regarding the software level you are seeking. It is not sufficient to state that you have the additional requirements. Your response should describe your experience, knowledge and capabilities as they apply to the delegation you are seeking and how they were obtained.

Response:

1. Are you applying for Airborne Electronic Hardware authority? Yes No

If yes, you must also possess the additional technical qualifications and experience described in FAA Order 8000.95 Volume 9, Chapter 2, Section 4, Paragraph b(8). Please ensure that your response addresses each item separately and is clear regarding the level you are seeking. It is not sufficient to state that you have the additional requirements. Your response should describe your experience, knowledge and capabilities as they apply to the delegation you are seeking and how they were obtained.

Response:

**Special Delegation Information**

A DER may be authorized to approve technical data under a special delegation. Please refer to FAA Order 8000.95 Volume 9, Section 2, and paragraph 5 for additional information.

1. Are you requesting a special delegation for Major Repair authority? Yes No

This special delegation requires specialized training prior to receiving this authority. Please refer to the engineering designee training information website. Have you completed this specialized training?

Yes No

(If yes, attach evidence of completion)

If you are requesting major repair authority and you have completed the specialized training, please list your knowledge and experience appropriate for this special delegation and describe how it was obtained.

Response:

1. Are you requesting a special delegation for Major Alteration authority? Yes No

This special delegation requires specialized training prior to receiving this authority. Please refer to the engineering designee training information website. Have you completed this specialized training?

Yes No

(If yes, attach evidence of completion)

If you are requesting major alteration authority and you have completed the specialized training, please list your knowledge and experience appropriate for this special delegation and describe how it was obtained.

Response:

1. Are you requesting a special delegation for Repair Specification Authority? Yes No

If yes, please describe your significant experience appropriate to this special delegation and how it was obtained. This special delegation has specific technical qualifications and experience requirements. Ensure that your response addresses these requirements. Reference FAA Order 8000.95 Volume 9, Chapter 2. Section 4, Paragraph (b)(6).

Response:

1. Are you requesting a special delegation for Parts Manufacturer Approval (PMA) authority? Yes No

If yes, please describe your significant experience appropriate to this special delegation and how it was obtained.

Response:

1. Are you requesting a special delegation for Service Documents authority? Yes No

If yes, please describe your significant experience appropriate to this special delegation and how it was obtained.

Response:

1. Are you requesting a special delegation for Project Management authority? Yes No

If yes, please describe your significant experience appropriate to this special delegation and how it was obtained.

Response:

1. Are you requesting a special delegation for Safety Analysis authority? Yes No

If yes, please describe your significant experience appropriate to this special delegation and how it was obtained.

Response:

1. Are you requesting a special delegation for Foreign Civil Aviation Authority (CAA) Compliance Findings authority? Yes No

If yes, please describe your knowledge in the application and interpretation of the specific foreign regulations you are requesting and how it was obtained.

Response:

1. Are you requesting a special delegation for Electrical Wiring Interconnection Systems (EWIS)? Yes No

Note: This special delegation is only authorized with part 25 authority. Applicants must also complete Appendix A of this document and submit it as part of the application.

**Appendix A**

**Supplemental Information for Electrical Wiring Interconnection Systems (EWIS)**

The supplemental information in this appendix must be completed and submitted by any DER or DER applicant seeking EWIS authority.

**Qualifications for DERs with Delegated Functions Related to EWIS Areas**

An applicant for the delegated functions related to EWIS must satisfy the general requirements for delegated authority specified in FAA Order 8000.95, *Designee Management Policy*, and have the specific qualifications described below. The applicant’s qualifications must include a work history that demonstrates “hands-on” experience in performing and reviewing various aircraft EWIS activities at the detailed level. An applicant’s knowledge and experience with each of the applicable regulations and each applicable advisory circular will be considered when determining the specific authority that will be delegated.

An applicant for EWIS related delegated authority must complete this supplemental information and include it in the application package. The applicant must provide supporting evidence of their experience and familiarity that meets the specific requirements in each area requested. This supporting evidence should demonstrate their working knowledge and understanding of the specific FAR Part 25 sections related to EWIS, and the applicable advisory circulars. An applicant should also be able to demonstrate that they understand why we are treating electrical wiring and its associated components as a system. You may attach additional pages and refer to them as necessary verses including all explanations in the provided boxes.

**Areas of EWIS Delegated Authority**

An applicant for the EWIS special delegation must specify the areas for which they are seeking authorization and must meet all of the requirements for those areas. The table shown below shows the four EWIS areas that are available for authorization and delegation

Examples of activities involving each of the four areas of delegation in the table are provided below for the purposes of justifying experience in each area:

**Design** – activities such as wire routing, wire bundle fabrication, installation drawing preparation, wire length determination, form boards, etc.

**Analysis** – activities such as developing and reviewing electrical load analysis, zonal and enhanced zonal analysis, system safety analysis, failure mode and effect analysis, etc.

**Maintenance** – activities such as developing/performing maintenance tasks, ICA, standard wiring practice manual etc.

**Note 1**: To satisfy the compliance needs for each regulation listed in the Table, statements must exist for each area marked “X”. An “R” in the column indicates that only a “recommend approval” may be submitted to the ACOB. Only the ACOB may approve EWIS Instructions for Continued Airworthiness (ICA). For instance, compliance statements for Design, Analysis, and Installation are required for §25.1729.

**Note 2**: The note column indicates that the DER must apply for delegated authority. Refer to “Additional Application Requirements for EWIS Related Authority” in this supplement for minimum qualification.

**Table: EWIS Areas of Delegated Authority**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Electrical Wiring Interconnection Systems (EWIS)** | | | | |
|  | Design | Installation | Analysis | Maintenance | Note |
| **Part 25, Subparts D,E,F** |  |  |  |  |  |
| 25.611(b) | X | X |  |  | Note 2 |
| 25.855(j) | X | X |  | X | Note 2 |
| 25.869(a) | X | X |  |  | Note 2 |
| 25.899 | X | X |  |  | Current HIRF/Lightning/EMC delegation authority |
| 25.1203(h) | X | X |  |  | Note 2 |
| 25.1301(b) | X | X | X |  | Revised FAR can be added to current delegation authority |
| 25.1309(f) | X | X | X |  | Revised FAR can be added to current delegation authority |
| 25.1310 | X | X | X |  | Revised FAR can be added to current delegation authority |
| 25.1353 | X | X | X |  | No new authorization is necessary. Designee’s current delegation authority is sufficient |
| 25.1357 | X |  | X |  | No new authorization is necessary. Designee’s current delegation authority is sufficient |
| 25.1360(a) | X | X |  |  | Note 2 |
| 25.1362 | X | X |  |  | Note 2 |
| 25.1365 | X | X | X |  | Note 2 |
| **Part 25, Subpart H** |  |  |  |  |  |
| 25.1701 | N/A | N/A | N/A |  | Note 2 |
| 25.1703 | X | X |  | X | Note 2 |
| 25.1705 | X | X | X |  | Note 2 |
| 25.1707 | X | X | X | X | Note 2 |
| 25.1709 | X | X | X |  | Note 2 |
| 25.1711 | X | X |  | X | Note 2 |
| 25.1713 | X | X |  |  | Designees who currently find compliance to 25.869 may find compliance to 25.1713 without further qualification |
| 25.1715 | X | X |  | X | Note 2 |
| 25.1717 | X | X |  |  | Note 2 |
| 25.1719 | X | X |  |  | Note 2 |
| 25.1721 | X | X |  |  | Note 2 |
| 25.1723 | X | X |  |  | Note 2 |
| 25.1725 | X | X |  |  | Note 2 |
| 25.1727 | X | X |  |  | Note 2 |
| 25.1729 | R | R |  | R | Note 2 |
| 25.1731 | X | X |  |  | Note 2 |
| 25.1733 | X | X |  |  | Note 2 |
| **Part 25, Appendix H** |  |  |  |  |  |
| H25.4 | X |  |  | R | Note 2 |
| H25.5(a)(1) | R | R | R | R | Note 2 |
| H25.5(a)(2) | R | R |  | R | Note 2 |
| H25.5(a)(3) | R | R |  | R | Note 2 |
| H25.5(a)(4) | R |  |  | R | Note 2 |
| H25.5(a)(5) | R |  |  | R | Note 2 |

**Additional Application Requirements for EWIS-Related Delegation Authority**

**Design**

1. Do you have an engineering degree plus four years employment experience in aircraft wiring design? Yes No

List your engineering degree and where it was obtained. Also, describe your experience and how it demonstrates a thorough working knowledge and understanding of EWIS rules applicable to aircraft wiring.

Response:

1. Do you have a thorough working knowledge and experience in each of the following areas:
   1. Electrical systems types and characteristics for transport airplanes
   2. Designing wiring in a factory setting for transport airplanes
   3. Developing test producers for testing and inspecting electrical wiring
   4. Wire and cable selection
   5. Wire connection and associated hardware
   6. Aspects of DO-160 and Advisory Circular (AC)) 43.13-1B

Yes No

Describe how you obtained a thorough working knowledge and experience in each area.

Response:

**Installation**

1. Do you have a minimum of 4 years employment with practical experience in wiring installations for aircraft? Yes No

Describe your employment and practical experience in wiring installation for aircraft.

Response:

1. Do you have a thorough working knowledge and experience in each of the following areas:
   1. Wire installations in a factory setting in transport airplanes
   2. Performing wiring inspection
   3. Aircraft wire types and their unique characteristics
   4. Aircraft zones and unique characteristics (e.g., temperature, vibration, moisture, etc.)
   5. Wire connection and installation hardware
   6. Aircraft wiring separation standards and wiring best practices

Yes No

Describe how you obtained a thorough working knowledge and experience in each area.

Response:

**Analysis**

1. Do you have an engineering degree? Yes No

List your engineering degree and where it was obtained

Response:

1. Do you have a thorough working knowledge and experience that includes the application or development of each of the following:
   1. Aircraft electrical load analysis
   2. Safety analysis
   3. Industry EWIS design standard
   4. Aircraft Functional Hazard Assessments
   5. System Functional Hazard Assessments
   6. System Safety Assessments (Fault Tree Analysis/Dependence Diagrams)
   7. Failure Modes and Effects Analysis Common Cause Analyses (Zonal Analysis/Common Mode Analysis)

Yes No

Describe how you obtained a thorough working knowledge and experience in each area.

Response:

**Maintenance**

1. Do you have a minimum of 4 years employment with a thorough working knowledge and experience in each of the following areas:
   1. Performing electrical wiring maintenance at a maintenance facility
   2. Performing wiring tests, inspections, troubleshooting
   3. Wire and cable selection
   4. Wiring components and installation hardware
   5. Standard Wiring Practice Manual
   6. Aircraft zonal analysis
   7. Wiring inspection techniques (e.g., visual inspection, detailed visual inspection, etc.)
   8. Understanding of and experience with the aspects of Advisory Circular (AC) 43.13-1B

Yes No

Describe how you obtained a thorough working knowledge and experience in each area.

Response:

**Areas of EWIS Delegated Authority**

Applicants must use this table to indicate the specific areas they are requesting authority as described in “Areas of EWIS Delegated Authority” above. Only mark those areas that you are requesting.

**Table: EWIS Areas of Requested Authority**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Electrical Wiring Interconnection Systems (EWIS)** | | | | |
|  | Design | Installation | Analysis | Maintenance | Note |
| **Part 25, Subparts D,E,F** |  |  |  |  |  |
| 25.611(b) |  |  |  |  | Note 2 |
| 25.855(j) |  |  |  |  | Note 2 |
| 25.869(a) |  |  |  |  | Note 2 |
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| 25.1362 |  |  |  |  | Note 2 |
| 25.1365 |  |  |  |  | Note 2 |
| **Part 25, Subpart H** |  |  |  |  |  |
| 25.1701 |  |  |  |  | Note 2 |
| 25.1703 |  |  |  |  | Note 2 |
| 25.1705 |  |  |  |  | Note 2 |
| 25.1707 |  |  |  |  | Note 2 |
| 25.1709 |  |  |  |  | Note 2 |
| 25.1711 |  |  |  |  | Note 2 |
| 25.1713 |  |  |  |  | Designees who currently find compliance to 25.869 may find compliance to 25.1713 without further qualification |
| 25.1715 |  |  |  |  | Note 2 |
| 25.1717 |  |  |  |  | Note 2 |
| 25.1719 |  |  |  |  | Note 2 |
| 25.1721 |  |  |  |  | Note 2 |
| 25.1723 |  |  |  |  | Note 2 |
| 25.1725 |  |  |  |  | Note 2 |
| 25.1727 |  |  |  |  | Note 2 |
| 25.1729 |  |  |  |  | Note 2 |
| 25.1731 |  |  |  |  | Note 2 |
| 25.1733 |  |  |  |  | Note 2 |
| **Part 25, Appendix H** |  |  |  |  |  |
| H25.4 |  |  |  |  | Note 2 |
| H25.5(a)(1) |  |  |  |  | Note 2 |
| H25.5(a)(2) |  |  |  |  | Note 2 |
| H25.5(a)(3) |  |  |  |  | Note 2 |
| H25.5(a)(4) |  |  |  |  | Note 2 |
| H25.5(a)(5) |  |  |  |  | Note 2 |