

Comment-response document for **Special Condition on Electrical Wiring Interconnection System (EWIS) Applicable to Large Aeroplane STC applicant**

Commenter	Comment	EASA position
CAA-UK	<p>1. The introductory note of this NPA identifies that its purpose is to provide the public consultation for the EWIS Special Condition CRI (CRI H-01 circulated through LA PCM community) now being applied to airworthiness certification of STCs. However, the content of the NPA is different to that of the EWIS CRIs :</p> <p>a. Statement of Issue does not refer to MD11 and B747 accidents per CRI H-01</p> <p>b. No EASA Position section provided per CRI H-01.</p> <p>c. Reference to Part 21 regulations to explain reason for Special condition not provided: 21A.103(a)92)(iii) to address the unsafe condition and 21A.16B(a)(3) [referred to incorrectly as 21A.16(b)(iii) in EASA CRI H-01] for the special condition.</p> <p>d. Reference to EASA letter previously supplied to DOAs not referenced, per CRI H-01.</p> <p>e. The order of the presented paragraphs in “CS-25 Special Condition H-01” text is different to that of previously published EASA CRI H-01.</p>	<p>EASA position:</p> <p>1.a. Comment noted. <i>“Investigations of aeroplane accidents (including the midair explosion of a B747 and the crash of an MD 11) and later examinations of different aeroplanes types have identified safety concerns associated with aeroplane wiring systems that could potentially result in an unsafe condition”,</i> will be added to the “Statement of Issue” paragraph to provide additional background information.</p> <p>1.b. Comment noted. The regulatory framework <i>“Under PART 21A.103(a)(2)(iii), an applicant shall be entitled to have a major change to a type design approved by the Agency after the applicant has shown that no feature or characteristic makes it unsafe for the uses for which certification is requested.</i></p> <p><i>The Special Condition is not needed in case CS-25 amendment 5 is the applicable requirement.</i></p> <p><i>When CS-25 amendment 5 is not the applicable Certification Specification of the TBD product., in accordance with PART 21A.16B(a)(3), a Special Condition shall be raised if experience from other similar</i></p>

Commenter	Comment	EASA position
	<p>f. The “Requirements” section was presented as H25.5 in the EWIS CRI H-01. The material is the same, but the compliance via the NPA “requirements” text makes no reference to H25.5 losing the relevance of the reference made to H25.5 in the previous section.</p> <p>g. Given the differences, it is not clear whether the special condition CRI H-01 has been subject to public consultation. Is it the EASA’s intent to reissue the NPA to reflect CRI H-01, or revise the generic text for CRI H-01 that has been circulated through the LA PCM community?</p>	<p><i>products in service or products having similar design features, has shown that unsafe conditions may develop. Consequently, for TBD company name Certification, the Special Condition H-01 defined in appendix is proposed based on a specific provision of CS-25 amendment 5 Appendix H.”</i></p> <p>will be added to the “Statement of Issue” paragraph to provide additional background information.</p> <p>1.c. Please refer to 1.b.</p> <p>1.d. Comment not understood, reference to the EASA letter is already provided in the “Statement of Issue”.</p> <p>1.e. Comment noted. The order of paragraphs has been reestablished in accordance with already published Special Conditions on this subject.</p> <p>1.f. Comment noted. <i>“Add to: Appendix H Instructions for Continued Airworthiness”</i> and <i>“H25.5 Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness”</i> will be added to the Special condition. However, reference to H25.5 and to AMC to H25.5 was previously provided in para. 4 of the Special Condition <i>“...in accordance with CS-25 Appendix H paragraph H25.5 and AMC appendix H 25.5, paragraphs 1 and 6”</i>.</p> <p>1.g. It is EASA’s intention to update the EWIS Special Condition CRI H-01 provided for public consultation in accordance with this CRD and to use it for future</p>

Commenter	Comment	EASA position
		applications. However, there are no regulatory differences, which would require a reissue of already published Special Conditions on this subject.
CAA-UK	<p>2. If the text of CRI H-01 that this NPA is intended to address is to be commented on, the “Identification of Issue” first paragraph could be revised to improve its readability, and included within the NPA’s text.</p> <p>Proposed text : <i>“Investigations of aeroplane accidents (including the midair explosion of a B747 and the crash of an MD 11) and later examinations of different aeroplanes types have identified safety concerns associated with aeroplane wiring systems that could potentially result in an unsafe condition”.</i></p>	<p>EASA position: Comment noted. Please refer to 1.b.</p>
CAA-UK	<p>3. Statement of issue Amendments to text of “Statement of issue”, to improve readability</p> <p>Proposed text : <i>“To enhance the safety of large aeroplanes’ wiring systems, the EASA has developed, in cooperation with FAA, a regulatory package that includes new and revised certification and maintenance requirements to address the shortcomings of current wiring systems design, installation and maintenance practices. The new certification requirements were published in CS-25 amendment 5, dated 5 September 2008.</i></p>	<p>EASA position: Comment noted. Text will be amended to improve readability.</p> <p><i>“To enhance the safety of large aeroplanes’ wiring systems, EASA has developed, in cooperation with FAA, a regulatory package that includes new and revised certification and maintenance requirements to address the shortcomings of current wiring systems design, installation and maintenance practices. The new certification requirements are contained in CS-25 amendment 5, dated 5 September 2008.</i></p> <p>By letter “EASA D (2008) CEXP/PME/84328” dated, 31</p>

Commenter	Comment	EASA position
	<p>By letter “EASA D (2008) CEXP/PME/84328” dated, 31 October 2008, the EASA has requested <i>that</i> applicants for an EASA STC conduct <i>the wiring</i> analyses <i>necessary and</i>, when required, develop Instructions for Continued Airworthiness (ICA) on Electrical Wiring Interconnection System (EWIS) by 7th of June 2010 or the date of issuance of the certificate, whichever occurs <i>later</i>”.</p>	<p>October 2008 EASA has requested <i>that</i> applicants for an EASA STC conduct <i>Electrical Wiring Interconnection System (EWIS)</i> analyses <i>necessary and</i>, when required, develop Instructions for Continued Airworthiness (ICA) on <i>Electrical Wiring Interconnection System (EWIS)</i> by 7th of June 2010 or the date of issuance of the certificate, whichever occurs <i>later</i>”.</p>
CAA-UK	<p>4. CS-25 Special Condition H-01 Last sentence on “CS-25 Special Condition H-01” prior to “Requirements” section:” when the design change...” is a duplicate of the text in the second paragraph of the same section and should therefore be removed.</p> <p>Proposed text : [...] for the representative aeroplane’s Electronic Wiring Interconnection System (EWIS) as defined in CS 25.1701 in accordance with CS-25 Appendix H paragraph H25.5 and AMC appendix H 25.5 paragraphs 1 and 6 when the design change for which approval is sought does necessitate a revision of the EWIS ICA.”</p>	<p>EASA position: Comment noted. Text will be amended accordingly. Refer also to comment 1.e.</p>
CAA-UK	<p>5. Requirements section III Amendments to text of last two paragraphs of Requirements section III, to improve readability.</p> <p>Proposed text : “Where the analysis of the design change and the TC holder’s EWIS ICA identifies that no revision to the EWIS ICA, this shall be substantiated as part of, or supplementary to, the certification package for the approval of the STC by 7 June 2010 or the date of issuance of the certificate whichever occurs later.</p>	<p>EASA position: Comment partially accepted. The proposed text may lead to misunderstandings and has not been fully adopted. It should be noted there is an initial assessment to be done (not an EZAP analysis) in accordance with AMC 20-21. The initial assessment shows only that a revision to the EWIS ICA <u>may</u> be necessary, and to determine this, an EZAP analysis is to be performed. Pending on the</p>

Commenter	Comment	EASA position
	<p><i>Where the analysis of the design change and the TC holder's EWIS ICA identifies that a revision to the EWIS ICA is necessary, the applicant for the STC must perform an EZAP analysis in accordance with AMC 20-21 and, if necessary, submit final EWIS ICA to the Agency by 7 June 2010 or the date of issuance of the certificate whichever occurs later."</i></p>	<p>result of the EZAP analysis, this then may require a change of the original EWIS ICA (or not). However, the text will be revised into <i>"In case the initial assessment shows that no revision is necessary for the EWIS ICA, this shall be substantiated as part of the certification package for the approval of the STC.</i></p> <p><i>In case the initial assessment shows that a revision to the EWIS ICA may be necessary, the applicant must perform an EZAP analysis and, if necessary, submit final EWIS ICA to the Agency by 7 June 2010 or the date of issuance of the certificate whichever occurs later."</i> for clarity.</p>

Following the comments received, EASA has decided to modify and to re-issue the EWIS SC H-01 ([Click here](#)).
As comments received were mainly 'wording' related, a new consultation period has not been deemed necessary.