COMMENT RESPONSE DOCUMENT (CRD) TO NOTICE OF PROPOSED AMENDMENT (NPA) 2008-09

for amending Commission Regulation (EC) No 1702/2003 of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations

"Possibility to deviate from airworthiness code in case of design changes"

Explanatory Note

I. General

1. The purpose of the Notice of Proposed Amendment (NPA) 2008-09 dated 7 May 2008 was to propose an amendment to Commission Regulation (EC) No 1702/2003 of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations[1].

II. Consultation

2. The draft Opinion for a Commission Regulation amending Commission Regulation (EC) No 1702/2003 was published on the Agency web site (http://www.easa.europa.eu) on 7 May 2008.

   By the closing date of 7 August 2008, the European Aviation Safety Agency (the Agency) had received 39 comments from 12 National Aviation Authorities, professional organisations and private companies.

III. Publication of the CRD

3. All comments received have been acknowledged and incorporated into this Comment Response Document (CRD) with the responses of the Agency.

4. In responding to comments, a standard terminology has been applied to attest the Agency's acceptance of the comment. This terminology is as follows:

   - **Accepted** – The comment is agreed by the Agency and any proposed amendment is wholly transferred to the revised text.
   - **Partially Accepted** – Either the comment is only agreed in part by the Agency, or the comment is agreed by the Agency but any proposed amendment is partially transferred to the revised text.
   - **Noted** – The comment is acknowledged by the Agency but no change to the existing text is considered necessary.
   - **Not Accepted** - The comment or proposed amendment is not shared by the Agency

   The resulting text highlights the changes as compared to the current rule.

5. The Agency's Opinion on Possibility to deviate from airworthiness code in case of design changes will be issued at least two months after the publication of this CRD to allow for any possible reactions of stakeholders regarding possible misunderstandings of the comments received and answers provided.

6. Such reactions should be received by the Agency not later than 08 June 2009 and should be submitted using the Comment-Response Tool at http://hub.easa.europa.eu/crt.

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[1] Commission Regulation (EC) No 1702/2003 of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 243, 27.9.2003, p. 6). Regulation as last amended by Commission Regulation (EC) No 1057/2008 of 27 October 2008 (OJ L 283, 28.9.2008, p. 30).

IV. CRD table of comments, responses and resulting text

(General Comments)

comment 4 comment by: *AIR SAFETY GROUP*

Air Safety Group
9 July 2008.Comments on EASA NPA 2008-09

The Air Safety Group welcomes the attempt being made by EASA to provide more flexibility in defining the applicable requirements for TCs, STCs and changes to products and makes the current rules more consistent.
The NPA states that: "In principle all organisations modifying aircraft are potentially affected. However the envisaged amendment will be mainly used for modifications of cabin interiors for privately operated large aeroplanes".
It seems, however, to the Air Safety Group that although this may initially be the case, the alternative procedures will gradually become used more widely.
It will be a helpful change for the manufacturers as it will ease the burden of proof required and will allow operational limitations to be taken into account when defining the applicable requirements.
It sets a good precedent in that it recognises that CS-25 covers a range of aeroplane types and that these need not all have to be designed to the same level of safety: the safety level will be dependent on the type of operation envisaged (e.g. private aeroplanes do not need to meet the equivalent airline standards as their annual usage will be significantly less).

Consequently the Air Safety Group supports the NPA proposals.

Capt R Williams FRAeS
Chairman, Air Safety Group
13th July 2008

response *Noted*

The level of safety was not intended to be different. The proposed rule was intended to address specific designs for which the airworthiness code was not initially developed. Due to the prescriptive nature of some provisions of this airworthiness code it may be difficult or impossible to show equivalent safety to these provisions only, as allowed by 21A.21(c)(2). Nevertheless it may be shown that the product meets the level of safety as intended by the essential requirements for airworthiness by a combination of compensating measures.
See also response to comment number 10 below.

comment 5 comment by: *FAA*

In review of the proposed rule, it appears that the rule rewrite tries to define a particular regulatory approach. However, the introduction in the NPA leads one to the conclusion that the approach is otherwise. The introduction to the NPA is very subjective. Without clear guidance material, the result of this amendment could be very ambiguous and allows for a wide approach in determining the certification basis for each product change. It is imperative that EASA create clear harmonized guidance material working closely with other Authorities to insure international standardization for establishing the certification basis for aeronautical products.

Additionally, it could be interpreted that this rewrite shifts the burden of determining the significance of the product change away from the applicant back to the Authority. This would limit delegation of the certification process to the applicant and increases Authority's certification cost.

Further, the proposed rule change is too broad based for the application described in the preamble. It represents a major departure from the existing FAA, TCCA, EASA harmonized rule and guidance material for changed products.

Proposed Alternative Text

(i) Otherwise specified by the Agency finds that any of the provisions of the airworthiness code are not appropriate to deal with specific design features of the product in relation to its intended use and alternatively will prescribe other detailed technical specifications and limitations to ensure compliance with the essential requirements for airworthiness of Annex 1 to the basic Regulation;

Recommendation: Remove the above highlighted wording in both proposed rules (21:17 and 21.101).

response

Noted

Please note that the highlighting in the above comment was removed in the Comment-Response Tool. The problem has been identified and will be addressed shortly.

The wording proposed in the NPA intended to achieve that the Agency can only allow deviations from the applicable airworthiness code within the limitations of the essential requirements for airworthiness in Annex I of the Basic Regulation. This should ensure a consistent level of safety for all certified products.

Moreover, in 21A.17(a)(1)(i) it replaced a text which was much more ambiguous allowing any deviation without any restriction.

With regard to harmonisation it is noted that the FAA also has the possibility to allow deviations from the applicable airworthiness code by means of exemptions.

See also response to comment number 10 below.

comment

6 comment by: *Luftfahrt-Bundesamt*

The LBA has no comments on NPA 2008-09.

response

Noted

comment

8 comment by: *Austro Control GmbH*

This NPA is supported by Austro Control.

response

Noted

Thank you.

comment	*23* comment by: *Light Aircraft Association UK* The LAA supports the proposed amendment.
response	*Noted* Thank you.

comment	*24* comment by: *FAA* The Part-21 requirements for TC changes and STCs in 21A.101 impose the latest available airworthiness code but also allow using older requirements under certain conditions. Changes to TCs are discussed under 21.19, which refers to substantial changes, requiring the use of the latest regulatory standards. 21.101 is used for type design changes classified at a lower product change threshold (significant and not-significant) allowing for reversion to earlier standards.
response	*Noted* The NPA proposal does not intend to change this principle. See also response to comment number 10 below.

comment	*25* comment by: *FAA* To the extent considered appropriate for safety, CS-25 standards contain different provisions based on passenger capacity discriminants. These standards do not distinguish between aeroplanes operated in air carrier service and aeroplanes operated for private use. It is true that CS-25 standards are written with air carrier operation in mind, but it can be questioned whether the one level of airworthiness code for large aeroplanes is, in fact, appropriate for all types of operation. ((Experience has shown that for "the majority of deviations from the airworthiness code equivalent safety through design measures" can be demonstrated but in a limited number of cases such as special cabin modifications for privately owned large aeroplanes this is impossible or impractical.)) Maybe it's my American English, but I do not understand the wording within the double quotation. Need additional clarification.
response	*Noted* The intent was to explain that in the past experience with certification of products, when an applicant for a TC wanted to deviate from a provision in the applicable airworthiness code, in almost all cases he was able to show that his design nevertheless provided for equivalent safety. Only in a few cases the demonstration of equivalent safety was not possible in the design of the aircraft but by another measure such as an operational limitation.

comment	*26* comment by: *FAA* These issues include firm handholds throughout the aeroplane cabin, passenger injury criteria for side facing seats, flight attendant direct view of the cabin, passenger information signs, emergency exit locations and markings, interior compartment doors, aisle widths, material flammability

compliance, fire detection, cook tops and fire extinguishers.
This NPA envisages the introduction of a provision in Part-21 allowing deviations from the applicable airworthiness code in case of modifications by applying alternative detailed certification specifications.
(What is the definition of "alternative detailed certification specifications"?)

Clear guidance will be required here.

response

Noted

The "alternative detailed certification specifications" would be determined on a case-by-case basis, very similar to Special Conditions. The intent was to use this possibility only in cases where the design of the aircraft for a particular use (e.g. private) does not allow compliance with certain prescriptive provisions of the applicable airworthiness code.

See also response to comment number 10 below.

comment *27* comment by: *FAA*

In these cases the mitigation of risks can partly be found in the use of the aeroplane. By applying these alternative detailed certification specifications in combination with restrictions regarding the use of the aeroplane, compliance with the essential requirements for airworthiness of Annex 1 to the basic Regulation can be ensured.

I believe the above discussion is similar to the FAA restricted category certification requirements. Again, ensure harmonized policy with other Authorities.

response

Noted

The Basic Regulation defines when the issuance of Restricted Type Certificate (R-TC) is appropriate: in cases where the product does not comply with all provisions of the essential requirements for airworthiness of Annex 1 to the Basic Regulation. In such case, specific airworthiness specifications and limitations for use will ensure adequate safety.

This case of R-TC is different from the case which is covered by the NPA proposal since the latter will still ensure compliance with the essential requirements.

The FAA concept of Restricted Category is understood to be different from the EASA approach in that it is applied in all cases when an aircraft is used for certain purposes. Harmonisation of these rules will therefore be difficult.

comment *28* comment by: *FAA*

1) The FAA is not in the position to relieve an applicant from regulations that the applicant considers burdensome and not relevant in particular cases. The current regulations governing type certification require compliance with the applicable airworthiness, aircraft noise, fuel venting, and exhaust emission requirements of the Federal Aviation Regulations and any special conditions prescribed by the Administrator; and expressly provide for non-compliance with any airworthiness regulation whenever equivalent safety is provided. Irrelevant regulations are thus excluded from the certification basis for a product during the certification process.

2) Generally speaking, 14 CFR § 21.17(a) requires an applicant to demonstrate

	that its product meets the design requirements established on the date of TC application. Absent further FAA action, the certification standards applicable to a particular product were established at the date of the application. However, under § 21.17(a)(1)(i), the general rule is subject to change by the Administrator, i.e. "unless otherwise specified by the Administrator." The Administrator statutory authority may be exercised at any time through the rulemaking process. Applying a standard through an SFAR is a valid exercise of the Administrator's statutory authority. Moreover, the authority to attach additional safety conditions to the certification basis is explicitly recognized in § 21.17(a)(1)(i) mentioned earlier. In conclusion, using an SFAR to impose a design requirement adopted after the TC application date is valid whether viewed as an implementation of the Administrator's authority under § 21.17(a)(1)(i) or the exercise of his/ her inherent statutory authority. Another possibility for "Otherwise specified by the Administrator" would be an exemption to an airworthiness requirement which is also conducted through the rulemaking process. 3) When we exercise the rulemaking process of an exemption route, we do grant an exemption when the request would be in the public's interest and the reason(s) why the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule from which you seek the exemption. 4) To summarize, with the exception of bilateral agreement or BASAs, "Otherwise specified by the Administrator" would be through a public process. This could be a rulemaking process or just a notice in the Federal Register with opportunity for public comment. An example of when a notice is appropriate is when we establish a new special purpose under 14 CFR § 21.25(b)(7). It is my opinion that Harmonization cannot be maintained here if your organization wishes to pursue this proposed language for this NPA. 5) It should be pointed out that since all airworthiness requirements that are appropriate for inclusion on an aircraft during the type certification process are incorporated into appropriate airworthiness parts of the regulations at the same time that they are added to the operating rules, an aircraft will comply with all such regulations that are in effect at the time of the application for the type certificate. A different situation exists with respect to those airworthiness requirements that are made effective subsequent to the date of application for the type certificate, but prior to the date of issuance of the type certificate. Safety regulations have not required that all airworthiness standards adopted subsequent to the date of application for a type certificate be applied to an aircraft in the process of obtaining a type certificate. The regulations have, however, always provided for such an application when specified by the Administrator and, in appropriate instances, the FAA has taken regulatory action to require that existing airworthiness requirements adopted subsequent to the date of application for a type certificate be applied to an aircraft as a condition to the issuance of that certificate. The FAA considers that this is the proper procedure for dealing with the matter of retroactive application of airworthiness regulations. Since there are airworthiness requirements that are related to specific operations and are not, therefore, properly a condition to the issuance of a type certificate for an aircraft, the application of airworthiness requirements should be determined on a case-bycase basis. Justification is embedded above.
response	*Noted*

The explanation does not contain a comment on the NPA.

TITLE PAGE p. 1

comment *7* comment by: *DGAC France*

The French DGAC has no comment on this NPA 2008-09

response *Noted*

A. EXPLANATORY NOTE - IV. Content of the draft opinion p. 4-5

comment *10* comment by: *UK CAA*

Commentor:	UK CAA
Paragraph:	Section IV, Paragraph 8
Page No*:	4
Comment:	The NPA suggests that certain airworthiness requirements set out in the Certification Specifications need not be applied if restrictions are placed on the purposes for which the aircraft is to be used. In particular, it is suggested in the NPA that removing requirements from the applicable CS and adding a restriction to prohibit commercial operation can maintain compliance with the Essential Requirements for Airworthiness of Annex I of Regulation 216/2008. We have reviewed the Essential Requirements and cannot understand how any non-compliance with those requirements can be overcome by prohibiting commercial operation. To take a specific example: paragraph 2.c.2 of the Essential Requirements, concerns the protection of passengers. We understand the word "passenger" to mean any person onboard an aircraft who is not a member of the crew. The Essential Requirements do not differentiate between fare paying and non-fare paying passengers. If the aircraft cabin is non-compliant with the Essential Requirements for a commercial flight, how does it become compliant if the aircraft is carrying out a private flight? Conversely, if an aircraft cabin is accepted as complying with the Essential Requirements for a private flight even though it does not comply with some of the CS requirements contained in the Type Certification Basis, why is the cabin not safe enough to carry a fare-paying passenger? It is recognised that there may be circumstances where deviations from the normal airworthiness code may be justifiable. As stated in the NPA, if "equivalent safety" can be shown, then there is not a problem. If equivalent safety cannot be shown, then there may be a non-

	compliance with the Essential Requirements. This situation is being addressed satisfactorily by NPA 2008-06 - Restricted TC, Restricted STC and Restricted CofA. It is suggested therefore that the problem of accepting a cabin layout that does not fully comply with the Type Certification basis for the aircraft can be overcome by using the proposed Restricted STC process, and issuing a Restricted CofA to the aircraft; as proposed in NPA 2008-06. Alternatively, the CS's could be amended to apply different standards for different configurations, and this NPA amended to allow applicants to elect to comply with the later CS amendments.
Justification:	It is not understood how any non-compliance with the Essential Requirements for airworthiness can be corrected by restricting an aircraft to non-commercial operation. Non-compliance with the Essential Requirements is addressed satisfactorily by NPA 2008-06, which also provides for the mandatory restrictions to be defined on the Certificate of Airworthiness.
Proposed Text: (if applicable)	This NPA 2008-09 should be reduced in its scope simply to allow an applicant to elect to comply with later requirements.

response *Partially accepted*

As a result of comment nrs. 1, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 29, 31, 32, 33, 35, 36, and 37 the Agency has reconsidered its proposal for 21A.17(a)(1)(i) and 21A.101(a)(1) and came to the following conclusion:

The rules for establishing the certification basis by the Agency for new type certificates and changes to type certificates are stipulated in Article 20(1)(a) of the Basic Regulation. This article makes clear that the certification basis is composed of:

1. the applicable airworthiness code;
2. provisions for which an equivalent level of safety has been accepted;
3. special detailed technical specifications, in Part-21 jargon known as Special Conditions.

A further condition regarding the certification basis is included in Article 5(2)(a) which makes clear that it must ensure compliance with the essential requirements for airworthiness of Annex I.

The Agency is of the opinion that the way how the above provisions of the Basic Regulation are reflected in Part-21 should be improved. For example, the second component of the certification basis according to the Basic Regulation is, in accordance with Part-21, not part of the certification basis but is included in the paragraph dealing with the issuance of the type certificate. Another example is the current text of 21A.17(a)(1)(i) regarding deviations from the applicable airworthiness code which is much broader than what the Basic Regulation envisages.

The text proposed for 21A.17(a)(1)(i) in NPA 2008-09 was an attempt to address specific and rare cases where certain provisions of the applicable airworthiness code are not complied with, because those provisions were not developed for aeroplanes in certain configurations designed to satisfy specific customer needs and specific use; e.g. the private use of a large aeroplane.

The Agency realises that the proposed text does not make clear for which cases it is intended and that it will not reduce the current ambiguity. This is equally applicable to the text which was proposed as 21A.101(a)(1).

Therefore the Agency has decided to withdraw these two proposals from the NPA and to keep only the proposal related to "elect to comply" in case of changes to design.

In addition the Agency intends to initiate a new rulemaking task with the intent to improve the alignment of Part-21 with the Basic Regulation with regard to establishment of the certification basis. One of the improvements should be to better explain the concept of "equivalent level of safety" so that it can be used to address the deviations from the airworthiness code as described in the NPA. At the same time the Agency intends to include in rulemaking task 25.070 the adoption of certification specifications in CS-25 similar to those proposed by the FAA in NPRM 07-13, "Special Requirements for Private Use Transport Category Airplanes". Most of these requirements have already been used as special conditions in previous certification projects.

comment *11* comment by: *UK CAA*

Commentor:	UK CAA
Paragraph:	Section IV, Paragraph 8
Page No*:	4
Comment:	The NPA proposes that certain airworthiness requirements set out in the Certification Specifications need not be applied if restrictions are placed on the purposes for which the aircraft is to be used. However, there is nothing in the proposal that defines how the restrictions on aircraft use are to be applied or enforced. Can the Agency explain how a restriction on use will be made mandatory in these circumstances? It is noted that the means to apply operating restrictions to an airworthiness approval has already been proposed by NPA 2008-06 - Restricted TC, Restricted STC and Restricted CofA. It is suggested therefore that the problem of accepting a configuration that does not fully comply with the Type Certification basis for the aircraft can be overcome by using the proposed Restricted STC process, and issuing a Restricted CofA to the aircraft; as proposed in NPA 2008-06.
Justification:	It is not understood how any restriction on the kind of operation needed to ensure compliance with the Essential Requirements for airworthiness can be applied using the changes set out in this NPA. The application of additional restrictions is addressed satisfactorily by NPA 2008-06, which provides for mandatory restrictions to be defined on the Certificate of Airworthiness.
Proposed Text: (if applicable)	This NPA 2008-09 should be reduced in its scope simply to allow an applicant to elect to comply with later requirements. The application of restrictions on use is addressed satisfactorily by NPA 2008-06

response *Partially accepted*

See response to comment number 10 above.

comment *15* comment by: *Rolls-Royce plc [DGJ]*

The requirement to ensure adherence to the Essential Requirements (expressed in paragraph 10 of the NPA) could/should equally be applied to 21A.16B(a), unless the text of 21A16B(b) is considered already to deliver this intent.

response *Noted*

This is already achieved by the text of 21A.16B(b).

comment *19* comment by: *FAA*

Sec A.IV.8. first paragraph

- Assuming that the intent of existing language for 21A.17(a)(1)(i) is to lead to same results as corresponding US Title 14 Part 21.17(a)(1)(i), the language should allow for equivalent safety findings, exemptions, and special conditions. In addition, Special Federal Aviation Regulations (SFAR's) may also establish certification basis for aircraft. Except for equivalent safety findings, these are all done with public notice and comment through rulemaking. The equivalent safety finding is vetted by the Directorate standards staff, with an eye towards assuring standardized interpretation of the airworthiness standard, and possibly need for clarifying or updating amendments to the airworthiness code.

Justification:
Review of preamble and Notice of Proposed Rule Making (NPRM) language for 14 CFR §21.17 (particularly Amendments 21-19 and 21-24), as well as predecessor rule language (e.g., CAR 4b.11), do not indicate that FAA has interpreted "...unless otherwise specified by the Administrator..." to be limited to equivalent safety findings. We believe the phrase allows for any adjustments to a certification basis for the appropriate category / product type certificate

Proposed Alternative Text
Delete from the paragraph the last two sentences, unless the basis for saying that equivalent safety finding is only basis for deviations from the airworthiness code is more explicitly justified (bearing in mind alternatives possibly permitted by exemption process and 21A.21.)

response *Partially accepted*

See response to comment number 10 above.

comment *29* comment by: *FAA*

Section IV.8 third paragraph (page 4 of 7)

In focusing on the private use airplane example, the basis for the deviations includes accepting different risk levels for different kinds of operations (airline service compared to executive airplane usage). Discussion may include reference to specific cabin safety requirements being predicated upon anticipation of a highdensity seating interior, absence of which reduces the

anticipated safety benefit of the rule from which deviation is requested.

Justification:
Airline and executive airplane are both air transportation usage of a large airplane in very different typical operations scenarios.

Proposed Alternative Text
Add language in paragraph to more directly state that deviations from the aircraft certification airworthiness code (? - detailed certification specifications?) that are proposed will be constrained by both operating limitations (? - restrictions?) for the aircraft's actually intended usage, and by the difference between the airplane's actual configuration, and the configuration that is dictated by the airplane's proposed usage. Some alternative language is needed to assure reader that the "flexibility and regulatory relief" that is proposed will be bounded by appropriate rational considerations (so that the proposed change does not permit arbitrary or capricious modification of applicable certification standards)

response

Partially accepted

See response to comment number 10 above.

comment

30 comment by: *FAA*

1) The FAA is not in the position to relieve an applicant from regulations that the applicant considers burdensome and not relevant in particular cases. The current regulations governing type certification require compliance with the applicable airworthiness, aircraft noise, fuel venting, and exhaust emission requirements of the Federal Aviation Regulations and any special conditions prescribed by the Administrator; and expressly provide for non-compliance with any airworthiness regulation whenever equivalent safety is provided. Irrelevant regulations are thus excluded from the certification basis for a product during the certification process.

2) Generally speaking, 14 CFR § 21.17(a) requires an applicant to demonstrate that its product meets the design requirements established on the date of TC application. Absent further FAA action, the certification standards applicable to a particular product were established at the date of the application. However, under § 21.17(a)(1)(i), the general rule is subject to change by the Administrator, i.e. "unless otherwise specified by the Administrator." The Administrator statutory authority may be exercised at any time through the rulemaking process. Applying a standard through an SFAR is a valid exercise of the Administrator's statutory authority. Moreover, the authority to attach additional safety conditions to the certification basis is explicitly recognized in § 21.17(a)(1)(i) mentioned earlier. In conclusion, using an SFAR to impose a design requirement adopted after the TC application date is valid whether viewed as an implementation of the Administrator's authority under § 21.17(a)(1)(i) or the exercise of his/ her inherent statutory authority. Another possibility for "Otherwise specified by the Administrator" would be an exemption to an airworthiness requirement which is also conducted through the rulemaking process.

3) When we exercise the rulemaking process of an exemption route, we do grant an exemption when the request would be in the public's interest and the reason(s) why the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule from which you seek the exemption.

4) To summarize, with the exception of bilateral agreement or BASAs, "Otherwise specified by the Administrator" would be through a public process. This could be a rulemaking process or just a notice in the Federal Register with opportunity for public comment. An example of when a notice is appropriate is when we establish a new special purpose under 14 CFR § 21.25(b)(7). It is my opinion that Harmonization cannot be maintained here if your organization wishes to pursue this proposed language for this NPA.

5) It should be pointed out that since all airworthiness requirements that are appropriate for inclusion on an aircraft during the type certification process are incorporated into appropriate airworthiness parts of the regulations at the same time that they are added to the operating rules, an aircraft will comply with all such regulations that are in effect at the time of the application for the type certificate. A different situation exists with respect to those airworthiness requirements that are made effective subsequent to the date of application for the type certificate, but prior to the date of issuance of the type certificate. Safety regulations have not required that all airworthiness standards adopted subsequent to the date of application for a type certificate be applied to an aircraft in the process of obtaining a type certificate. The regulations have, however, always provided for such an application when specified by the Administrator and, in appropriate instances, the FAA has taken regulatory action to require that existing airworthiness requirements adopted subsequent to the date of application for a type certificate be applied to an aircraft as a condition to the issuance of that certificate. The FAA considers that this is the proper procedure for dealing with the matter of retroactive application of airworthiness regulations. Since there are airworthiness requirements that are related to specific operations and are not, therefore, properly a condition to the issuance of a type certificate for an aircraft, the application of airworthiness requirements should be determined on a case-bycase basis.

Justification is embedded above.

response

Noted

This explanation does not contain a comment on the NPA.

comment

31 comment by: *FAA*

IV. Content of the draft opinion. Paragraph number 8

I strongly disagree with your paragraph number 8. under "IV. Content of the draft opinion" for the reasons described in the previous NPA Comment Form in 1), 2), 3)and 4). Also, What do you mean by the statement at the end of this paragraph that states, "Due to the prescriptive nature of certain provisions in the airworthiness code it can be very difficult if not impossible to demonstrate an equivalent level of safety to those provisions." ???.

Justification:
For your information, our airworthiness requirements are the minimum prescribed standards required in the interest of safety for the design, construction and performance of a product and that equivalent level of safety findings under 14 CFR § 21.21 (which is basically a finding made by the FAA with respect to the safety goal of the specific rule with which the applicant does not show literal compliance), are not designed to raise the level of airworthiness for a product beyond the minimum which has been generally set by the applicable existing regulations.

response

Partially accepted

See response to comment number 10 above.

comment

32 comment by: *FAA*

Section IV.9 (page 4 of 7); also somewhat applicable to Section V.14.(a). i second paragraph (option 2) (page 5 of 7) AND proposed 21A.101(a) 2.

14 CFR Part 21.101(a) is the rule in US system that establishes certification basis for changes to type certificates; this statement does not seem to recognize this position.

Justification:
I would think that (1) same language in existing 21A.101, and (2) absence of qualifier in existing 21A.17(a) [e.g., "...for the initial issuance..."] means that this concern is unnecessary.

Proposed Alternative Text:
If the paragraph is to be retained, it seems to require better explanation of the problem which is calling for the intended solution.

response

Partially accepted

See response to comment number 10 above.

comment

33 comment by: *FAA*

Section IV.10 (pages 4 -5 of 7)

I do not understand how the single reference to Annex 1 addresses "...the boundaries that are put by article 5 and 20 of the basic Regulation."

Justification:
Absent knowledge of the structure or document sections cited, I would assume article 5 deals with aircraft and article 20 deals with flight operations requirements. If so, the goal of the proposal is understandable, but the logic by which it achieves the goal is not clear.

Proposed Alternative Text:
If appropriate, a better explanation would be more enlightening (possibly by individual explanatory parenthetical description or identification of articles 5 and 20).

response

Partially accepted

See response to comment number 10 above.

A. EXPLANATORY NOTE - V. Regulatory Impact Assessment p. 5-6

comment

12 comment by: *UK CAA*

Commentor:	UK CAA
Paragraph:	Section V, 11(b) and 13
Page No:	5
Comment:	This section suggests that the proposed rule will apply

	mainly to the cabins of privately operated large aeroplanes, and will be used for a limited number of modifications each year. However, there is nothing in the proposed rule to restrict the scope of its application. The definition of the certification requirements applicable to a product or modification can often be an area for strong disagreement between applicants and regulators. There is ample evidence of this in the history and agreement of the so-called "Changed Product Rule" as currently included in Part 21 and its guidance material. If the proposed change is implemented there is a risk that applicants will seek to use it to by-pass the existing rules for defining the certification basis of new and changed products. Therefore this proposal has the risk of weakening the Agency's position and of leading to a divergence from the existing rules. In time this could lead to unequal treatment of applicants, and non-uniform standards - contrary to the intent of the EASA Regulation (216/2008)
Justification:	The implementation of the proposed text may undermine the existing rules for defining the certification basis of new and changed products, leading to dispute between the Agency and the industry and potentially unfair/unequal application of standards.
Proposed Text: (if applicable)	This NPA 2008-09 should be reduced in its scope simply to allow an applicant to elect to comply with later requirements.

response *Partially accepted*

See response to comment number 10 above.

comment *13* comment by: *UK CAA*

Commentor:	UK CAA
Paragraph:	Section V, 14(a)(v)
Page No:	6
Comment:	This section states that EASA is considering amending CS 25 to allow for different standards for different applications. (This approach is suggested in the UK CAA comment on Section IV, Paragraph 8). Amending CS 25 in this way would be in-line with FAA intentions and so would promote harmonisation, to the long-term benefit of the applicants, the owners/operators and the regulators. This approach would be preferable to the change to Part 21 proposed in this NPA 2008-09. (It is noteworthy that the FAA has to issue exemptions to the relevant FAR 25 paragraphs because they are legally binding in the US. The position in Europe is different in that the CS's are not mandatory in law. i.e. An exemption is needed if there is a non-compliance with an implementing rule, such as Part 21, but not for a non-compliance with CS-25).
Justification:	It would be better to pursue appropriate changes to CS-25, consistent with the FAA intent, due to the long-term benefit of harmonisation.

Proposed Text: (if applicable)	This NPA 2008-09 should be reduced in its scope simply to allow an applicant to elect to comply with later requirements.

response *Partially accepted*

See response to comment number 10 above.

comment *20* comment by: *FAA*

V. Regulatory Impact Assessment. Paragraph number 11

In regards to the subparagraphs 11. a. and b. under "V. Regulatory Impact Assessment", I disagree with your statement that there is lack of flexibility inestablishing the certification basis for changed products.

Justification:
It is our opinion that "date of application airworthiness standards" in 14 CFR § 21.17 is much less flexible than current 14 CFR § 21.101 (Recall the exceptions discussed in 14 CFR §21.101(b)). Also, how can you limit the application of your proposed 21A.17 and 21A.101 to a number of modifications per year?? Are you implying that you will engage into the rulemaking process by means of processing exemptions for those projects involving certain types of modifications that your agency considers that do not involve cabin interiors for privately operated large airplanes, or are you planning to arbitrarily hand pick which projects will have to comply with the proposed 21A.17 and 21A.101, and which ones will have to comply with what ??? Another valid question will be... Are you trying to define another category for transport category aircraft like "Private Use Airplane (BBJs or Airbus BJs)?? And finally, the comprehensive question will be, Any indication on how this intended change to the rule will not be considered arbitrary and capricious??

response *Partially accepted*

See response to comment number 10 above.

comment *21* comment by: *FAA*

The safety level is nevertheless maintained because compliance with the essential requirements for airworthiness of Annex I of the basic regulation is always assured and non-compliances with inappropriate provisions of the airworthiness code are mitigated through alternative detailed certification specifications and operational restrictions.

It remains questionable whether the "safety level" would be maintained. It stands to reason that the level of safety would vary from application to application and from each certification engineer defining the certification basis for product changes.

response *Partially accepted*

See response to comment number 10 above.

comment *34* comment by: *FAA*

V. Regulatory Impact Assessment
11. Purpose and Intended Effect

a. Issue which the NPA is intended to address. Inconsistencies between establishing the certification basis for initial TC and changes, notably the lack of flexibility in establishing the certification basis for changed products.
FAA and EASA policy is clear. Flexibility in establishing the certification basis for changed products (21.101) is inherent in the rule and guidance material.

response *Noted*

Part 21A.101 does allow for flexibility in establishing the applicable requirements for changed products but not the flexibility as envisaged by the proposal.

comment *35* comment by: *FAA*

b. Scale of the issue (quantified if possible).

The envisaged amendment will be used for a limited number of modifications per year.

How is this limitation achieved? Or, does this statement mean that only a few of these applications are envisioned yearly? Additional clarification is required to comment.

response *Noted*

The limitation is not in the rule but is known from experience in past certification projects.

comment *36* comment by: *FAA*

c. Brief statement of the objectives of the NPA.
The objective of this NPA is to remove the inconsistencies as identified under subparagraph a. above.

We believe, based upon the above preamble discussions, that the proposed application of the rule will increase inconsistencies.

response *Partially accepted*

See response to comment number 10 above.

comment *37* comment by: *FAA*

13. Sectors concerned
In principle all organisations modifying aircraft are potentially affected. However the envisaged amendment will be mainly used for modifications of cabin interiors for privately operated large aeroplanes.

We believe the rule change is too broad-based to limit the use only for transport category cabin interiors.

response *Partially accepted*

See response to comment number 10 above.

comment	*38* comment by: *FAA* 14. Impacts, a. All identified impacts, i. Safety Option 1 is the reference option for comparison with the other option and is considered neutral. Option 2 will bring more flexibility in establishing the certification basis for changed products, similar to what exists for new TCs. The Option 2 statement above is incorrect. There is no flexibility in establishing the certification basis for new TCs. The rule is clear. The latest regulatory standards are required.
response	*Not accepted* The intent of option 2 was to bring this flexibility.

comment	*39* comment by: *FAA* ii. Economic Option 2 is expected to have a modest positive economic impact because for certain modifications it will no longer be necessary to look for equivalent safety entirely by design measures but also through the operational use of the aircraft. The economic impact is unclear. This rule change requires additional Authority burden which would most likely increases the applicant's ertification costs.
response	*Not accepted* Today the burden is already on the Agency to establish the certification basis for new TC and changed products. The NPA did not intend to change that principle.

B. DRAFT OPINION - 21A.17 p. 7

comment	*1* comment by: *Francis Fagegaltier Services* 21A.17 It is agreed that the wording « otherwise specified by the Agency » is not adequate because there is no guidance on the basis for such deviation. However, the proposed change to 21A.17 (a) 1 (i) is totally inappropriate because it reproduces what already exists in 21A.16B and 21A.16A. Alternate proposal ***(i) modified in accordance with 21A.16B.***
response	*Partially accepted* See response to comment number 10 above.

comment	*14* comment by: *Rolls-Royce plc [DGJ]* The Terms of Reference for this task describe how "...*the current "exemption" provision for new TCs should be reworded to better reflect the intent of the Basic Regulation on this subject. The Basic Regulation intends to allow deviations from the applicable airworthiness code as long as a level of safety is obtained equivalent to that intended by the Essential Requirements*...".

The proposed revision to 21A.17, however, not only allows exemptions where the "...*provisions of the airworthiness code are not appropriate to deal with specific design features of the product in relation to its intended use*..." but also offers the opportunity for the Agency to "...*prescribe other detailed technical specifications and limitations*...".

The ability to prescribe other technical specifications appears unnecessary, since the provisions of 21A.16B(a)1 and 2 already offer the opportunity for the Agency to "...*prescribe special detailed technical specifications, named special conditions, for a product, if the related airworthiness code does not contain adequate or appropriate safety standards for the product, because: 1. The product has novel or unusual design features relative to the design practices on which the applicable airworthiness code is based; or 2. The intended use of the product is unconventional*....". These existing options appear to cover all the needs expressed in paragraph 8 of the NPA.

If the intention is to offer a second mechanism for the Agency to define detailed technical specifications:-

- please advise when it would be appropriate to use Special Conditions under 21A.16B and when it would be appropriate to use "Other Detailed Technical Specifications" under 21A.17;
- please also advise the significance of the difference between the two.

response

Partially accepted

See response to comment number 10 above.

comment

17 comment by: *Transport Canada Civil Aviation Standards Branch*

Affected Text: 21A.17(a)(1)(i)

Comment: The proposal to introduce flexibility in 21A.17(a)(1)(i) to permit deviation from the specified airworthiness code appears to disagree with the primary intent of the NPA, which is to address changed products. 21A.17 refers to application for new type certificate, while changed products are dealt with under 21A.101. It is recommended that 21A.17(a)(1)(i) remain unchanged.

Justification: The current provision of 21A.17(a)(1)(i) "Otherwise specified by the Agency" already provides the administrative and legal bases to achieve the intent of this NPA, while still allowing EASA to enforce compliance with Annex 1 of the Basic Regulations. The intent of current 21A.17(a)(1)(i) should be documented and explained in detail through guidance or policy materials.

response

Partially accepted

See response to comment number 10 above.

resulting text

21A.17 Type-certification basis

(a) The type-certification basis to be notified for the issuance of a type-certificate or a restricted type-certificate shall consist of:

1. The applicable airworthiness code established by the Agency that is effective on the date of application for that certificate unless:

(i) Otherwise specified by the Agency; or

(ii) Compliance with certification specifications of later effective amendments is elected by the applicant or required under paragraphs (c) and (d).
2. Any special condition prescribed in accordance with 21A.16B(a).
……

(d) If an applicant elects to comply with a certification specification of an amendment to the airworthiness codes that is effective after the filing of the application for a type-certificate, the applicant shall also comply with any other ~~amendment~~ certification specification that the Agency finds is directly related.

B. DRAFT OPINION - 21A.101 p. 7

comment *2* comment by: *Francis Fagegaltier Services*

21A.101 (a)
The change is not necessary because the intent is already in 21A.101 (d) : 21A.16B refers (indirectly) to 21A.16A which addresses essential requirements of Annex I of the Basic regulation.

response *Partially accepted*

See response to comment number 10 above.

comment *3* comment by: *Francis Fagegaltier Services*

21A.101 (f)
The change is not necessary because the intent is already in 21A.101 (b).

response *Partially accepted*

See response to comment number 10 above.

comment *9* comment by: *Walter Gessky*

Austria Ministry of Transport, Innovation and Technology will support the possibility to elect to comply with later standards, but the text to 21A.101(f) should be reworded.
21A.101(f)
Change the following:
(f) If an applicant elects to comply with an amendment to the airworthiness codes that is **not applicable to the changed product** ~~effective after the filing date of the application for a change to a type~~, the applicant shall also comply with any other amendment that the Agency finds is directly related.
Justification:

- The new proposed text under (f) clarifies that when an applicant elect to comply with an amendment to the airworthiness codes not applicable to the change product either using the derogation according (b) and (c) or effective after filing date of the application he shall comply with any other amendment that the Agency finds directly related.
- In case of derogation, the certification basis is incorporated by reference from the TC. For amendments elected to comply between TC basis and the filing date of application for a change to a type, the applicant shall also comply with any other amendments that the Agency finds directly related.

- When an amendment of the CS is selected than usually the complete amendment has to be applied except the Agency verifies that parts of the amendment are not directly related.

response

Partially accepted

The “reversion” to older requirements as allowed through subparagraph (b) or (c) is not considered “elect to comply”. Moreover, this subparagraph (b) already includes a provision that allows the Agency in case of a reversion to an older requirement to impose other certification specifications that it finds are directly related.
Subparagraph (c) allows the use of the type certification basis incorporated by reference in the type certificate. If the applicant would choose to comply with an amendment of the CS after this reference date it should not be considered “elect to comply” because the basic requirement is in subparagraph (a) imposing the use of the latest airworthiness code.
Current practice of the Agency is to produce each amendment to an airworthiness code as a consolidated code. The wording of the provisions related to “elect to comply” both in 21A.17 and 21A.101, are adapted to this practice. Otherwise there may be confusion that it is only possible to elect to comply with a complete amendment. This was not the intent. The intent is to allow “elect to comply” with certain certification specifications and those that are directly related.
(see resulting text at the end of this CRD)

comment

16 comment by: *Rolls-Royce plc [DGJ]*

The proposed text for 21A.101(a)1 should make it clear that these provisions apply to the CHANGED product, ie "...*to deal with specific design features of the changed product in relation to its intended use*..."

response

Noted

The comment is no longer relevant since the text is removed from the proposal.

comment

18 comment by: *Transport Canada Civil Aviation Standards Branch*

Affected Text: 21A.101(a)(1)

Comment: This proposal seems to be redundant considering that 21A.101 deals with a product that already has a type-certificate, i.e. there is already an existing certification basis to begin with. The proposal to use "other detailed technical specification and limitations" can be implemented currently using Special Conditions. Any requirement in the existing certification basis that is considered inappropriate for the modification can be addressed using the current provisions of 21A.103(a)(2)(ii), or using 21A.101 (b)(3). As such, it is unclear how EASA intends to formulate the "other detailed technical specifications and limitation" in this proposal if it claims the existing airworthiness requirement "are not appropriate". Would it be a completely new standards or a deductive qualification from the current aircraft design standards in order to accommodate a private-use configuration? And depending on how this provision is implemented and widely applied, it may be possible to view a private-use configuration no different than how we currently treat aircraft for a special-purpose operation, and therefore eligible only for a supplemental type certificate in the restricted category. The current

	airworthiness requirements should remain as the threshold for all private-use configuration, and those requirements that are not appropriate be dealt with through a deviation or exemption. It is recommended that 21A.101 remain unchanged, and instead guidance material be developed for each aircraft design standard that identifies those requirements for which an exemption or deviation can be requested for an intended "private use" configuration. Justification: The existing 21A.101 and 21.103 already provide the legal and technical bases to accomplish the regulatory intent of this NPA.
response	*Partially accepted* See response to comment number 10 above.

comment	*22* comment by: *LHT DO*
response	*Noted* No comment is entered.

resulting text

21A.101 Designation of applicable certification specifications and environmental protection requirements

(a) An applicant for a change to a type-certificate shall demonstrate that the changed product complies with the airworthiness code that is applicable to the changed product and that is in effect at the date of the application for the change, unless compliance with certification specifications of later effective amendments is elected by the applicant or required under paragraphs (e) and (f), and with the applicable environmental protection requirements laid down in 21A.18.

(b) …..

(c) …..

(d) …..

(e) …..

(f) If an applicant elects to comply with a certification specification of an amendment to the airworthiness codes that is effective after the filing date of the application for a change to a type, the applicant shall also comply with any other certification specification that the Agency finds is directly related.