

## **CHANGE ANALYSIS GUIDELINES FOR SYSTEMS ALREADY AUTHORISED FOR OPERATION**

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### **1 GENERAL**

Where a system is already authorised for operation, any planned modifications must first be analysed to examine whether they might affect the conditions for the said authorisation and the associated Safety Case. This analysis must be made by the person responsible within ANS before the modification work itself is started. Various measures are to be taken, depending on the result of the analysis. These guidelines define the procedure that should be followed for modifications to systems that are already authorised for operation.

### **2 CHANGE ANALYSIS**

The figure on the last page of these guidelines sets out the procedure that should be followed for modifications to systems already authorised for operation.

#### **2.1 Are the conditions for the current operational authorisation affected?**

##### **2.1.1 Analysis**

The system safety assessment required for modifications to systems already authorised for operation shall be started when a proposed modification is conveyed by some means, e.g. by PCR or PÄR. Following a decision to proceed with the proposed modification, an analysis shall be performed to determine whether the modification in question will affect the conditions for the current operational authorisation, i.e. the existing Safety Case. This analysis should comprise a *preliminary functional hazard assessment* in accordance with Appendix C2.

The analysis should determine inter alia whether the modification in question involves any increased risks compared with the existing system solution as regards:

- the technical design (solution) as such,
- the implementation of the technical modifications (including any resultant risks for on-going operational activities),
- the operational commissioning,
- subsequent operation with the modified system.

#### 2.1.2 Existing operational authorisation is not affected

If the analysis carried out shows that the conditions for the existing operational authorisation are not affected by the current system modification, the result of the analysis shall be set out in a memo, indicating at least the following:

- an account of why the modification is being made,
- reference to the formal decision stating why and when the modification is to be implemented (or reference to a separate document with the relevant content),
- a description of what the modification involves,
- the arguments and evidences demonstrating that the modification will not bring any increased risks.

The said memo shall be issued to ANS's internal reviewer for review. The latter may approve the decision made or request additional information.

When the modification is introduced, a supplement to the Safety Case shall be issued to all holders. This document shall indicate at least the following:

- that the document is a supplement to the current Safety Case, including any earlier supplements,
- the system versions which, up to and including the said document, are covered by the operational authorisation in force,
- which new or updated reference documents apply together with those already listed in the Safety Case,
- reference to the correspondence between the person responsible and the ANS internal reviewer.

The system owner or a system administrator designated by the latter shall also ensure that all documents on the matter are archived to ensure that they can subsequently be linked to the current Safety Case, and shall update the Hazard Log.

## **2.2 Does the modification give rise to new hazards?**

If the analysis performed in section 2.1 shows that there are new hazards (with severity class “minor” or higher) as a result of the modification, an extended operational authorisation is required. The basis for the extended operational authorisation shall be developed in the same way as for the current authorisation, i.e. pursuant to Appendix C2. It shall be decided on a case-by-case basis whether the existing reports are to be updated or new reports produced. The extent of the work and the related Safety Plan can be adapted as agreed with the ANS internal reviewer. Applications for access control shall normally be sent to the Aviation Safety Authority.

## **2.3 Are existing hazards affected?**

If the analysis performed in section 2.1 shows that existing hazards are affected by the modification, existing analyses and reports shall be updated to reflect the modification, e.g. in accordance with Appendix C2.

## **2.4 Updating of safety documents**

If new hazards have been identified (with severity class “minor” or higher) or existing hazards are affected (with severity class “minor” or higher) a simple Safety Plan (based on the template in the handbook) shall be produced, defining the approach which is planned to be used for subsequent safety work. It shall be decided on a case-by-case basis whether the existing FHA, PSSA and SSA reports are to be updated or whether new reports are to be produced. The Hazard Log and Safety Case shall also be updated.

