

# TECHNICAL AUDIT PROCEDURE FOR VENTILATION DATA HELD IN THE PRODUCT CHARACTERISTIC DATABASE (PCDB)

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Issue 1.0

**DOCUMENT REVISIONS**

Documents will be revised by issue of updated editions or amendments. Revised documents will be posted on the website at [www.ncm-pcdb.org.uk/sap](http://www.ncm-pcdb.org.uk/sap).

Technical or other changes which affect product recognition requirements (for example) will result in a new issue. Minor or administrative changes (e.g. corrections of spelling and typographical errors, changes to address and copyright details, the addition of notes for clarification etc.) may be made as amendments.

The issue number will be given in decimal format with the integer part giving the issue number and the fractional part giving the number of amendments (e.g. Issue 3.2 indicates that the document is at Issue 3 with 2 amendments).

Users of this document should ensure that they possess the latest issue.

**DOCUMENT REVISION LOG**

DATE	VERSION NO.	AMENDMENT DETAILS	APPROVED BY
29/03/2022	1.0	First issue	MS

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## Introduction

BRE was informed by ventilation product manufacturers that as result of a combination of the COVID-19 pandemic and other geopolitical problems they were experiencing significant supply chain disruption. This has resulted in them needing to swap-out unavailable components at very short notice and use alternatives that were still available on the market.

When listing the product, the manufacturer agreed to BRE's terms and conditions<sup>1</sup>. These state that *"the manufacturer or supplier of the product undertakes not to make any alteration to the product affecting its energy performance while continuing to supply it under the same unique name."* In the case of ventilation products this means any change to the thermal or aerodynamic performance must result in the product being retested and then relisted.

BRE understand that the current situation was a totally unforeseen circumstance and has meant that to maintain production, manufacturers have had to modify the components of products. To avoid manufacturers always needing to retest and relist following every modification, BRE has developed a procedure setting out the need for in-house and third-party testing.

## Technical audit procedure of ventilation products

BRE will conduct an initial review when manufacturers inform BRE that a product needs to be modified. Depending on the modification, BRE will advise if the manufacturer or a third party should conduct the testing. Table 1 shows examples of modifications and the retesting requirements.

*Table 1 Retesting requirements for Ventilation products in the PCDB*

<b>Modification</b>	<b>Retesting requirement</b>
Fan	Must be retested by a third party
Heat exchanger	Must be retested by a third party
Internal seal materials or similar	Manufacturer must inform BRE with details of the changes proposed. BRE may require testing by a third party
Printed Circuit Board (PCB), controls, sensors, etc.	Manufacturer may test to determine the difference in electrical power and inform BRE of changes. If the change is very significant BRE may require testing by a third party
Filter material	No retesting required
Wiring	No retesting required

Products that are retested and fall within the variation in Table 2 can be modified without relisting the product in the PCDB. The changes will need to be recorded in the application as shown in Figure 1.

If there is sufficiently robust evidence that the modification has improved the products performance to that listed currently in the PCDB, the manufacturer may continue to use the current data without needing to relist the product.

If test data performs worse than the current PCDB listing when allowing for the applicable tolerance in Table 2, the product will need to be relisted separately in the PCDB.

<sup>1</sup> See Terms & Conditions at: <https://www.ncm-pcdb.org.uk/sap/page.jsp?id=10>

Table 2 Accepted measurement and production variation for Ventilation products in the PCDB

Technology Type	Parameter measured	Measurement and production variation
Decentralised Mechanical Extract Ventilation (dMEV)	SFP	$\pm 4.7\%$
	Fall off in flow with back pressure	$\pm 14.5\%$
Centralised Mechanical Extract Ventilation (MEV)	SFP	$\pm 4.7\%$
	Fall off in flow with back pressure	$\pm 14.5\%$
Mechanical Ventilation & Heat Recovery (MVHR)	Leakage rate	$\pm 5.8\%$
	SFP	$\pm 5.9\%$
	Heat recovery efficiency	$\pm 4.2\%$

## Recording of changes

The changes will be logged with each application as shown in Figure 1.

The screenshot shows the 'Notes' tab of the PCDB portal for an application titled 'New Product'. The interface includes a navigation bar with tabs for 'Identification', 'Details', 'Upload Files', 'Notes', 'Submit', and 'Results'. Below the navigation bar, the application name 'Application: New Product' is displayed with an '(edit)' link. A section titled 'Add a note to this application (max 500 characters):' contains a large text input field and an 'Add Note' button. Below this, a section titled 'Notes associated to this application:' displays a list of notes. One note is visible, showing the user 'Dharm Sivrajah' and the timestamp '2022-01-14 14:56:22', with the note content 'Redeveloped PCB'.

Figure 1 Notes tab from the PCDB portal