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**Authorising Engineer (Ventilation)  
Annual Report  
For  
Cardiff and Vale University Health board**

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Annual Report  
For  
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**NWSSP-SES Job No: Ventilation AE**

**Report Date: May 2022**

**Authorising Engineer: Dylan Evans BEng Tech. (Hons) MIHEEM  
Senior Performance Standards Engineer**

**Signed:**   
.....

**Authorised by: Simon B Russell BEng (Hons) CEng, MIET  
Head of Engineering**

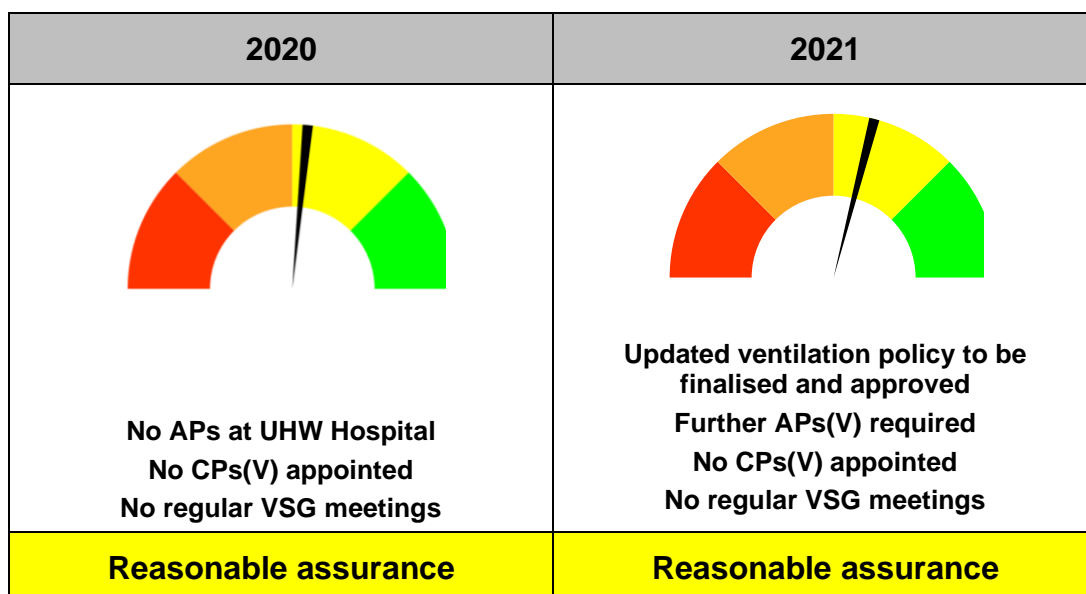
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## 1.0 EXECUTIVE SUMMARY

- 1.1 In general terms the AE(V) is content with the level of engagement with C&VUHB, and the cooperation received from the health board during the review period.
- 1.2 There has been a small improvement in the governance and operational procedures at C&VUHB since 2020.
- 1.3 A new management operational policy statement is being produced for the critical ventilation systems at C&VUHB, to comply with HTM 03-01 Parts A & B (2021). This policy needs to be finalised by the Ventilation Safety Group and submitted for approval by the Board members at C&VUHB.
- 1.4 One new Authorised Persons for Ventilation AP(V) was appointed by the health board during 2021 and another two APs(V) are currently being assessed by the AE(V).
- 1.5 At least two APs(V) should be appointed at each hospital to provide resilience. Currently only one AP(V) is appointed at each C&VUHB hospital.
- 1.6 Gareth Thomas previously an AP(V) at Llandough hospital has now left the health board, so at least one new AP(V) should be appointed at Llandough hospital to provide resilience and to support Norman Mitchell AP(V).
- 1.7 The Ventilation Safety Group, VSG, failed to meet regularly during 2021, due mainly to the increased workloads imposed on the group members by the COVID-19 pandemic.
- 1.8 To comply with HTM 03-01, we recommend that the VSG should meet at least quarterly during 2022, to ensure that the governance, operational procedures, maintenance, and risk mitigation etc. associated with the critical ventilation systems is in place.
- 1.9 Maintenance and management audits of the ventilation systems were completed at UHW and Llandough hospitals in late November 2021. The AE(V) has issued draft audit reports to C&VUHB for their review and comments, prior to issuing the reports to the Designated Person for ventilation, DP(V).
- 1.10 To comply with the new version of HTM 03-01 Parts A & B (2021), the list of critical ventilation systems at C&VUHB hospitals needs to be reviewed and updated to include for all critical ventilation systems, including imaging facilities, dental treatment rooms and local extract ventilation (LEV) systems.
- 1.11 The Authorising Engineer for Ventilation AE(V) has deemed an overall compliance rating of yellow (Reasonable assurance) as shown below in figure 1 below.



**Figure 1 Overall Compliance Rating**

## 2.0 BACKGROUND

- 2.1 The following report is a compliance review undertaken by the Authorising Engineer for Ventilation AE(V) appointed by CVUHB.
- 2.2 This report is in accordance with the guidance set out in Welsh Health Technical Memorandum 00 - which stipulates the requirement for the Authorising Engineer to produce an annual audit (WHTM 00 Best practice guidance for healthcare engineering paragraph 3.15).
- 2.3 Healthcare organisations have a duty of care to patients, their workforce and the general public. This is to ensure that a safe and appropriate environment for healthcare is provided, which is a requirement identified in a wide range of legislation.
- 2.4 The role of the AE(V) is detailed within HTM 03-01 and details the principal duties undertaken by the AE(V) in relation to the Healthcare organisation's statutory duties with regard to their ventilation installations.
- 2.5 The AE (V) appointed by CVUHB is Mr Dylan Evans of NWSSP-SES, and his role as AE (V) includes the following:
- Acting as an independent professional adviser to the Healthcare organisation on ventilation issues.
  - Act as an assessor and make recommendations for the appointment of Authorised Persons (Ventilation), AP(V).
  - Monitor the performance of the service and provide an annual audit of the Ventilation systems to the Healthcare Designated Persons.
  - At intervals not exceeding three years, the AE(V) is to undertake comprehensive audits of the operational procedures, safe systems of work and safety procedures recommended by HTM 03-01. A written report of the audit should be compiled, listing satisfactory items seen and any deficiencies found and recommendations made.

### 3.0 AUDITS OF SYSTEMS AND INSTALLATIONS

#### Operational management arrangements

- 3.1 The health board's Authorised Person (Ventilation), AP(V) has the key operational responsibility for this specialist service. Table 1 below details the current APs(V) nominated by the health board, assessed by the AE(V) and appointed by the health board.

Hospital	Authorised Person (Ventilation)	Date Assessed	Appointment Expires
UHW	Paul George	11.08.2021	11.08.2024
	To be appointed	To be appointed	To be appointed
UH Llandough	Norman Mitchell	03.08.2020	03.08.2023
	To be appointed	To be appointed	To be appointed
Barry	Norman Mitchell	03.08.2020	03.08.2023
	To be appointed	To be appointed	To be appointed
Cardiff Royal Infirmary	Norman Mitchell	03.08.2020	03.08.2023
	To be appointed	To be appointed	To be appointed

**Table 1 – Details of Authorised Persons (Ventilation)**

- 3.2 Typically, estates staff should ideally limit the number of AP duties they undertake to no more than two in related engineering systems. This is to enable them to spend sufficient time to perform their duties correctly in accordance with HTM guidance.
- 3.3 At least two APs(V) should be appointed at each hospital, to provide resilience.
- 3.4 All appointed APs(V) have undertaken an approved AP(V) course.
- 3.5 Since they were appointed, the APs(V) have been instrumental in producing a draft management, operational and safety policy for the critical ventilation systems at CVUHB sites. This policy will soon be submitted for approval by the health board's directors at board level.
- 3.6 Two new estates officers are currently being assessed by the AE(V) for AP(V) roles at UHW and at Llandough, Barry and CRI hospitals respectively.

### **Management, installation, and maintenance audits**

- 3.7 Management, installation, and maintenance audits were completed by the AE(V) in late November 2021, at both UHW and Llandough hospitals. Draft copies of the audit reports have been copied to the health board estates and maintenance departments, for review and comments, prior to them being submitted to the Designated Person for Ventilation, DP(V), at C&VUHB.

### **Annual critical ventilation system verifications**

- 3.8 The majority of the annual verifications of C&VUHB critical ventilation systems were completed during 2021. Some verifications could not be completed, due mainly to the increased workloads imposed by the COVID-19 pandemic. These verifications should be prioritised for completion early in 2022.

### **Ventilation Safety Group (VSG)**

- 3.9 Health Technical Memorandum (*HTM*) 03-01 “*Specialist ventilation for healthcare premises, Part B: Operational management and performance verification*”, (first published in 2007 but revised and updated in 2021), introduced the concept of the Ventilation Safety Group (VSG) in healthcare organisations (similar to the Water Safety Group in Health Technical Memorandum 04-01 on water safety). This is a multidisciplinary group responsible for ensuring that all specialist healthcare ventilation systems are operated safely and efficiently, properly maintained, regularly performance tested (verified annually) and routinely monitored and that detailed performance and maintenance records for each system are kept in line with the relevant legislation and guidance.
- 3.10 Most organisations should already have a VSG or similar group in place to oversee the governance of the critical ventilation systems and manage ventilation performance and safety. The VSG should take over this role, but with a more holistic remit. The HTM recommends that the Group report to the responsible person at Board level and be led and chaired by a person who has appropriate management responsibility, knowledge, competence and experience. This is in keeping with the recommendations in Health Technical Memorandum 00 – ‘Policies and principles of healthcare engineering.
- 3.11 The VSG met once during 2021. This needs to be improved during 2022 to ensure that the group meets regularly, i.e. at least quarterly, and that the appropriate representatives are encouraged to attend the group meetings.

## 4.0 INDEPENDENT PROFESSIONAL ADVICE

4.1 Independent professional advice was provided during the reporting period on a number of subject matters, including but not limited to:

- Design reviews and guidance on various new projects
- Assessing and recommending the appointment of Estates Officers to AP (V) roles at CVUHB hospitals.

## 5.0 INVESTIGATIONS OF ADVERSE INCIDENTS

5.1 No adverse incidents on the ventilation systems were reported to the AE (V) by the health board during this period.

## 6.0 RECOMMENDATIONS

6.1 Whilst the Designated Person should note the full content of this report, it is recommended that particular attention is given to addressing the following:

- The health boards ventilation policy needs to be completed and submitted to the board for approval.
- At least one additional AP(V)' should be appointed at each hospital to provide some resilience.
- To comply with the new version of HTM 03-01 Parts A & B (2021), the list of critical ventilation systems at C&VUHB hospitals needs to be reviewed and updated to include for all critical ventilation systems, including imaging facilities, dental treatment rooms and local extract ventilation (LEV) systems.
- The attendance and frequency of meetings of the Ventilation Safety Group (VSG) needs to improve during 2022. VSG meetings should be at least quarterly and all relevant stake holders should be encouraged to attend the meetings regularly. This includes senior representatives from IP&C, microbiology, theatre managers, clinical/nursing, health and safety, estates management, capital planning, the APs(V)' and the AE(V). External consultants should also be invited to attend as and when necessary.

6.2 If the Designated Person or their representatives would like to discuss this report further, please contact the AE (V) using the details below:

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