

FOI number: **HBC_FOI_20210170**
Date FOI Received: **22/03/2021**
Department: **Asset Management**
Title: **Air Conditioning System Details**
Description: **Air Conditioning System Details**

Request: (As Redacted sent by requestor)

1. Is your system an air-conditioning system or recirculated air system?
2. Please supply the supplier name / model of your air-con system?
 - 2a) Is the system manual or computer controlled (automatic or allows some user intervention)
3. Please state how you comply with Regulation 5 (Maintenance of mechanical ventilation systems) and Regulation 6 (effective ventilation) of The Workplace (Health, Safety and Welfare) Regulations 1992?
4. Does the system have an alarm to warn of failure in the system specifically in relation to the general ventilation to reduce concentrations of contaminants?
5. Air recirculation – is this filtered (e.g. by AHU's) and adequately filtered to remove particulates?
6. Where are the office inflow ducts located (floor or ceiling)?
7. Where are the exhaust or stale air extract ducts located?
8. What proportion (percentage or ratio) of fresh air mix is supplied into the offices?
9. What is the rate of fresh air flow in litres per second per person?
10. What is the average air flow velocity?
11. Does the system have a humidifier to regulate humidity and what is the setting?
12. Does the system use filters (i.e. HEPA filters) in respect of air intake?
13. How often are these filters checked and replaced?
14. How often is the air-conditioning system cleaned, checked and maintained?
15. What chemicals do you use to clean the system?
16. Do you have local exhaust ventilation (LEV) in the offices?
17. Do you have a system to monitor CO2 PPM and what is the threshold PPM of CO2 set at to open vents / windows to flush CO2?
18. How many complaints have been made in relation to the offices or 'Sick Building Syndrome' by employees in calendar years 2017, 2018 and 2019?
19. TM44 – when is your next assessment due, and who will be the assessor?

Response: (Response as Redacted sent by service)

1. Is your system an air-conditioning system or recirculated air system?

AC System for cooling & AHU for fresh Air intake & Stale air extract

2. Please supply the supplier name / model of your air-con system?

A mix of Mitsubishi Toshiba in general areas & Airedale units in the IT Server room

2a) Is the system manual or computer controlled (automatic or allows some user intervention)

Approximately 70% of the system can be controlled by the Trend BMS system the remaining 30% has local controls. The BMS controlled units still allow some user intervention.

3. Please state how you comply with Regulation 5 (Maintenance of mechanical ventilation systems) and Regulation 6 (effective ventilation) of The Workplace (Health, Safety and Welfare) Regulations 1992?

Maintenance & servicing regime is in place under contract to specialist AHU & AC maintenance service providers. In addition independent IAQ survey & ventilation hygiene report carried out annually with all recommended remedial works actioned to ensure safe compliant AHU & AC systems. Backed up by reports & certification provided following surveys & remedial works.

Q4. Does the system have an alarm to warn of failure in the system specifically in relation to the general ventilation to reduce concentrations of contaminants?

The AHU ventilation system controlled by the Trend IQ Vision BMS system has failure warning alarms built in in relation to flow levels fan failure etc. The AC units controlled by the Trend BMS have the usual temperature monitoring & filter condition sensors that activate warning alarms within the BMS system interface.

Q5. Air recirculation – is this filtered (e.g. by AHU's) and adequately filtered to remove particulates?

The AHU system contains bag & panel filters to remove particulates. AHU filter specification F9 Grade bag filters & M11 Grade panel filters.

Q6. Where are the office inflow ducts located (floor or ceiling)?

Ceiling mounted inflow ducts & grills

7. Where are the exhaust or stale air extract ducts located?

Ceiling mounted stale air extract ducts & grills

8. What proportion (percentage or ratio) of fresh air mix is supplied into the offices?

Fresh air is drawn in via the AHU system through filters at roof level & distributed to all floors no recycled air is used to ventilate the building

9. What is the rate of fresh air flow in litres per second per person?

During the most recent AHU survey the average fresh air flow per person was 5.5-6.5 litres per second

10. What is the average air flow velocity?

Average air flow velocity 3.0 -3.5 m/s

11. Does the system have a humidifier to regulate humidity and what is the setting?

The Vapac humidifiers are not in use at present as the units require replacement. A quotation has been obtained to replace the Vapac units which will be reviewed in the 2021/2022 financial year.

12. Does the system use filters (i.e. HEPA filters) in respect of air intake?

The system uses bag filters of F9 grade & panel filters of M11 grade.

13. How often are these filters checked and replaced?

The filters are replaced every 4 months. Works carried out by our service provider's specialist AHU/Ventilation sub-contractor

14. How often is the air-conditioning system cleaned, checked and maintained?

The general AC system is cleaned serviced & maintained annually under a service contract. The server room Airedale AC units are cleaned & maintained every 3 months.

15. What chemicals do you use to clean the system?

External condenser units are cleaned using Enviro coil cleaner. The internal filters are vacuumed & washed as required during the servicing carried out by our AC maintenance service provider.

16. Do you have local exhaust ventilation (LEV) in the offices?

No

17. Do you have a system to monitor CO2 PPM and what is the threshold PPM of CO2 set at to open vents / windows to flush CO2?

No however the CO2 levels are recorded during the IAQ & ventilation hygiene survey carried out annually the CO2 range for the building is between 177-231 ppm well within acceptable recommended limits.

18. How many complaints have been made in relation to the offices or 'Sick Building Syndrome' by employees in calendar years 2017, 2018 and 2019?

Whilst we have no complaints about 'Sick Building Syndrome' there are reports of discomfort in air flows and temperatures which are usual in open plan offices and centrally controlled systems

19. TM44 – when is your next assessment due, and who will be the assessor?

Last TM44 Survey carried out on 22/09/2020 by Optimised Energy (Previously known as Octago) Next assessment due in September 2025

If you have any queries about the processing of your request then please do not hesitate to contact me. Further information explaining the Council's process for responding to information requests together with a complaints/appeals procedure is available in our reception or via our website at:

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Thank you for your request.
Kind regards

Information Services