

 Warwickshire POLICE		POLICY
Security Classification	OFFICIAL	
Disclosable under Freedom of Information Act 2000	Yes	

<i>POLICY TITLE</i>	Heating & Cooling
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<i>POLICY OWNERSHIP</i>	
DIRECTORATE	ENABLING SERVICES
BUSINESS AREA	ESTATES, FACILITIES AND HEALTH AND SAFETY

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RISK RATING	LOW
EQUALITY ANALYSIS	LOW

Warwickshire Police welcome comments and suggestions from the public and staff about the contents and implementation of this policy. Please e-mail policiesandprocedures@warwickshire.pnn.police.uk

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1.00 POLICY

1.01 Policy Statement

Warwickshire Police occupy a variety of properties of different age and construction types.

The main objective of this Policy is to achieve a balance between the environmental and financial cost of heating and the cooling of Force buildings whilst maintaining the provision of comfortable working conditions.

This policy cannot cater for every individual's requirements as people in the same environment may experience different perceptions of hot and cold.

Warwickshire Police have a responsibility to reduce the organisations detrimental impact on the local environment by promoting environmental best practice and to exceed aspirations.

1.02 Warwickshire Justice Centres – For the Avoidance of Doubt

This policy does not apply to the Warwickshire Justice Centres as both centres have adopted their own heating and cooling policies for the governance of the centres.

1.03 Compliance

The policy has been prepared taking into account existing legislation and the individual working practices of both forces. New legislative requirements or changes in current legislation may necessitate a review of this policy.

It is the aim of this policy to ensure that Warwickshire Police:

Complies with Section 2 of the Health & Safety at Work Act 1974.

The Workplace (Health & Safety) Regulations 1992 state that:

- The temperature for sedentary (office) work should normally be at least 16°C and 13°C for physically active areas.
- Temperature during working hours must be reasonable*.
- The workplace must be adequately ventilated.
- Any method of cooling used should not produce dangerous or offensive fumes, gas or vapour. (Note: this would include Legionella or the build up of other bacteria within the Air Conditioning System causing illness or Sick Building Syndrome.)

*In the context of this document, the word 'reasonable' indicates a minimum temperature of 16°C no maximum temperature is prescribed.

1.04 The policies of Warwickshire Police are intended to promote equality, eliminate unlawful discrimination and actively promote good relationships regardless of:

- Age

- Disability
- Gender Reassignment
- Race
- Religion or Belief
- Sex
- Sexual Orientation
- Marriage & Civil Partnership
- Pregnancy & Maternity

1.05 The policy has been assessed as having a LOW potential impact using the equalities impact assessment template, by incorporating equality considerations into the policy process, has allowed both forces to identify any actual or potential equalities and reduce them as much as possible, by applying the policy differently or looking for alternatives.

1.06 Freedom of Information

On behalf of the Warwickshire Police & Crime Commissioners, the Enabling Services Department maintains a list of owned and leased property. Inappropriate disclosure of such information has the potential to undermine the effectiveness of the service in its provision of law enforcement and to jeopardise the Health & Safety of staff and the public. Disclosure of this detail will only be made to authorised personnel.
(Freedom of Information Act 2000, sections 31 and 38)

2.00 PURPOSE OF THE POLICY

2.01 Summary

This policy covers all police officers, police staff, contractors and visitors.

2.02 All employees are required by law to co-operate with Warwickshire Police on Health and Safety Matters. This includes compliance with this Policy.

2.03 Warwickshire Police is committed to ensuring the health, safety and welfare of its staff, visitors, contractors and any other users of its buildings, facilities or services. Where these services or facilities are provided by suppliers (including contractors, subcontractors and any other partner organisations), those providers will be subject to an appropriate and proportionate assessment of their health and safety (H&S) policy and arrangements.

3.00 IMPLICATIONS OF THE POLICY

3.01 Legal

The legal basis for this policy is found in existing legislation and developed to take into account the requirements of the Health and Safety at Work etc Act 1974 and relevant subordinate legislation made under it.

3.02 The Force is committed to ensuring that service users and employees are not discriminated against because of any of the nine protected characteristics as defined in the Equalities Act 2010.

3.03 Financial

There are no additional financial implications for the Police & Crime Commissioner of Warwickshire Police in applying this policy.

3.05 Bureaucracy

The minimal additional bureaucracy created by this policy is necessary to meet the Force's responsibility to meet its environmental and social responsibilities.

4.00 CONSULTATION

- 4.01 The draft policy was circulated for consultation, prior to consideration by the Joint Negotiating Consultative Committee (JNCC) Consultation included all interested groups which consisted of 44 individual members of staff, of which 17 responded, their comments were addressed and where appropriate included in the policy.

5.00 DOCUMENT HISTORY

- 5.01 The policy will be subject of regular review.

- 5.02 The history of the policy will be recorded using the chart below:

Date	Author / Reviewer	Amendment(s) & Rationale	Approval / Adoption
Jan-15	Kim James	Hamonisation	29/01/2015 JNCC
Oct 17	Helen Minett	Update of draft to include reference to PPL	Oct 2017
Aug 2021	Helen Minett	Update to reflect the end of the Alliance and PPL	
Jan 24	Helen Minett	Update to add Strategic HSQE & Estates Manager. Update references to Facilities Manger to HSQE & Facilities Manager	Jan 24

6.00 STATEMENT OF INTENT

- 6.01 Heating and air cooling equipment in offices should be set to heat to no more than 21°C or cool to less than 24°C air temperature.

Air conditioning systems will only be installed or replaced if they meet the criteria set out in 6.05 below.

Requests to install, expand or upgrade air conditioning systems in existing buildings shall be submitted to the Estates, Facilities and Health and Safety Department supported by a detailed business case.

All new buildings, unless there are overriding factors, will be designed such that there will be no need for air conditioning of the working area unless there is a specific and valid need which is ratified by the Estates, Facilities and Health and Safety Department.

The Estates, Facilities and Health and Safety Department will ensure that annual environmental building inspections / surveys are carried out to assess the buildings' heating and cooling systems to assess a fit for purpose environment. And any recommendations would form part of the Estates Planned Programme of Work.

6.02 Heating of Buildings

The heating season is normally between 01st October and 31st March unless average external daytime temperatures remain above 19°C, when the boilers will be kept off.

Boiler settings should be set or changed by the Estates, Facilities and Health and Safety Department.

Heating systems/ thermostats should be set to heat office air space to a maximum of 21°C only.

In rare circumstances where the minimum recommended temperature (16°C) cannot be achieved by central heating, temporary portable heaters may be provided by the Estates, Facilities and Health and Safety Department. For safety reasons the Force does not allow staff to use portable electric heaters other than those provided by the force as they must be regularly Portable Appliance Tested.

6.03 Custody

The heating of Custody blocks will be controlled separately at levels requested by the Duty Custody Inspector / Sergeant.

Police Buildings Design Guide – Custody Best Practice states that the Cell Temperature should be 21°C +/- 2°C Normal Maximum 25°C – The same levels are set for Medical Examination Rooms.

In the past there have been number of concerns about custody complexes being too hot or cold for both staff and detainees. In the interests of welfare for all, the force Estates department will assess existing arrangements in its custody facilities.

6.04 Portable Heating

The use of portable heaters is not recommended as:-

- They constitute an increased fire risk to the buildings and occupants.
- They can cause false temperatures to be sensed and prevent heating to be enabled.
- The electrical system is not designed for heavy load use such as multiple portable heaters; use of heaters can cause overload to occur and there is a potential for disastrous failure of circuits.
- The Force is committed to reduce its Carbon Footprint and increase the use of renewable sources of electrical energy.

Portable heating will only be used by exception, requests for the supply of portable heaters should be made to the Business Operations Service Desk and will only be authorised by the HSQE & Facilities Manager, or when existing systems have been found by the Estates, Facilities and Health and Safety Department to be incapable of meeting acceptable conditions due to plant failure, building condition, or extreme climatic conditions.

All electrical heaters used on Force premises will be thermostatic oil filled radiators no larger than 2kw in size.

All heaters will be electrically checked prior to issue.

Temporary heating must not be used on dedicated electrical circuits i.e. UPS supported or in data rooms.

The use of personal heaters / fan convectors brought from home and connected to force electrical systems will not be permitted and will be removed immediately from use.

6.05 Cooling of Buildings

Air-conditioned buildings use approximately twice as much energy than naturally ventilated buildings. This is because extra energy is required for the refrigeration of air and to power the pumps and fans which circulate the cooled air through the building.

The force aims to:

- Ensure that all practical measures are taken to reduce the need for active cooling.
- Reduce the environmental and fiscal impact of cooling installations that are unavoidable.
- Ensure that all requests for cooling supported by a business case are addressed in a reasonable, timely and consistent manner.

6.06 Methods of cooling without installing air cooling

There are various alternatives available to remove and/or prevent the build-up of heat within offices.

- Solar Film
- Natural Ventilation (e.g. open windows)
- Local Forced Air Movement (e.g. portable fans)
- Forced Air Ventilation

6.07 Portable and Desk top Fans

Portable and desk top fans will only be used by exception, requests for the supply of portable fans should be made to the Business Operations Service Desk will only be authorised by the Facilities Manager, or when existing systems have been found by the Estates, Facilities and Health and Safety Department to be incapable of meeting

acceptable conditions due to plant failure, building condition, or extreme climatic conditions.

All portable and desk top fans will be electrically checked prior to issue.

Temporary and desk top fans must not be used on dedicated electrical circuits i.e. UPS supported or in data rooms.

The use of personal portable and desk top fans brought from home and connected to force electrical systems will not be permitted and will be removed immediately from use.

The use of portable and desk top fans is not recommended where mechanical cooling is provided because they can cause false temperatures to be sensed and may prevent cooling (where installed) from being enabled.

The electrical system is not designed for heavy load use such as multiple portable fans; use of fans can cause overload to occur and there is a potential for disastrous failure of circuits.

6.08 Methods of Mechanical Air Cooling

Comfort Cooling

This form of cooling is basic and only offers temperature control without controlling other parameters (e.g. humidity).

With this type of cooling mechanically forced fresh air would not be introduced into the working environment as opening of the windows in the room could overload the cooling unit.

Comfort cooling can be from either a fixed or portable system.

Requests for the comfort cooling of offices will normally be resisted, however all requests must be made to HSQE & Facilities Managers supported by a detailed business case identifying the long term need, any medical conditions, operational reasons and identifying the annual revenue consequences of such installations.

Air Conditioning

Full air conditioning is designed to control all parameters to within specified limits including air filtration, air entering and leaving the controlled space and humidity.

It is possible to install partial air conditioning by omitting the control of humidity.

6.09 Processes or conditions where it is acceptable to introduce cooling:

- Forensic laboratories where chemical processes or electronic equipment require it to enable correct operation.

- IT Data / Equipment rooms where operating temperature tolerance range is likely to be exceeded and computer suites.
- Enclosed or sealed rooms like control rooms, where for security reasons the windows are unable to be opened.
- Temporary air cooling may be installed if there is an expectant mother who is being affected by the heat of the office, and where a suitable Risk Assessment calls for such a measure to be taken for the duration of the pregnancy or summer, whichever is shorter.
- Where a specific Risk Assessment calls for air cooling or conditioning for medical or other operational reasons.

Where conditions of work do not match the above scenarios, the Estates, Facilities and Health and Safety Department will make a decision on whether there is a case to install cooling based on the business / operational need on a case by case basis taking into consideration the relatively high financial and environmental costs.

The provision of cooling will be re-evaluated using the above criteria when there is any material change of use in an area.

6.10 Financial Costs

Departments submitting a business case requesting the provision of cooling should be aware of the costs involved including both installation and the increased electricity bills. Any business case prepared for cooling installations should be of sufficient detail to identify the annual revenue consequences of such installations (e.g. maintenance costs and energy usage) which can be obtained / provided by.

6.11 Maintenance

Maintenance of all air conditioning units (including the costs incurred) will fall to the Estates, Facilities and Health and Safety Department. When a unit becomes unserviceable, the unit to replace it will be subject to the same criteria used to assess requests for new installations.

Installations must be reasonably and safely accessible for repair and routine maintenance. Installations must also be located in a manner to minimise the risk of damage from the weather, snow removal operations, icefall, etc.

6.12 Aesthetics

As the exterior appearance of some sites may be a significant factor, impacts to the exterior environment must be treated as a primary consideration in the solution process. Insensitive installations can violate the integrity, balance or continuity of existing structures.

There may also be additional constraints due to listed status or aesthetic and town and country planning considerations.

7.00 MANAGEMENT OF PROCEDURE

- 7.01 If any building system modifications or installations are found to be in breach of this procedure, after the effective date, the Estates, Facilities and Health and Safety

Department will work with the department to develop a solution that responds to the requirements of this policy.

- 7.02 The Estates, Facilities and Health and Safety Department will monitor and analyse energy consumption data and report any trends to the Infrastructure Board with any subsequent recommendations to address concerns.
- 7.03 The Estates, Facilities and Health and Safety Department will ensure compliance with the related environmental policy.
- 7.04 Any breach of policy will be reported by Estates, Facilities and Health and Safety Manager to the Head of Business Operations who will address the matter and formally report back any findings within five working days.

8.00 MANAGEMENT RESPONSIBILITY

- 8.01 The primary duty holder is the Office of the Police and Crime Commissioner.

The Office of the Police and Crime Commissioner for Warwickshire Police – will delegate to the Deputy Chief Constable the overall responsibility to ensure that this policy is implemented and that appropriate funding is made available.

- 8.02 Deputy Chief Constable

The Chief Officer with functional responsibilities for estates, building matters and staff training.

The Deputy Chief Constable has delegated the task of ensuring that this policy is implemented within Warwickshire Police buildings to the Strategic HSQE & Estates Manager.

- 8.03 Strategic HSQE & Estates Manager

Implementation of Force policy and procedures.

Provision of adequate resources for training.

Provide advice and guidance to Senior Officers, Head of Departments, Head of Digital Services and the Business Services Managers as appropriate and as requested.

- 8.04 Estates, Facilities and Health and Safety Department

The Estates, Facilities and Health and Safety Department operates on behalf of the Police on all Estates matters to deliver the management of premises and the maintenance and refurbishment of buildings.

- Responsible for energy monitoring analysis, recording of data and the production of management reports.

- Responsible for identifying any problems relating to non-compliance of policy and procedures regarding energy use.
- Provide advice and guidance to Senior Officers, Heads of Departments, Head of Digital Services and Project Managers as appropriate and as requested.

8.05 HSQE & Facilities Managers

- Organisation of annual inspections of Heating & Cooling Systems, Audit of Building energy Management Systems (BeMS)
- Provide advice and guidance to Senior Officers, Heads of Departments, Head of Digital Services and Project Managers as appropriate and as requested.
- Ensuring adequate resources are available to manage the policy and procedure.
- Identification of staff training requirements.
- Maintenance and updating of survey records at each site.
- Responsibility for ensuring that the Asbestos Register is readily available to contractors.
- Responsibility for raising technical queries with the Asbestos Management specialists on any aspect relating to ACMs in the building.
- The control and authorisation of Portable Heating and Cooling units, and Portable & Desk top fans.

Appendix A: Glossary

1.00 THE POLICE & CRIME COMMISSIONER

A legal entity, enabled to contract with other legal entities. Owns and maintains all property used by Warwickshire Police.

The Police & Crime Commissioner for Warwickshire Police has a portfolio of approximately 28 buildings providing accommodation from which it delivers policing services to the communities of Warwickshire.

2.00 THE FORCE

Warwickshire Police

Warwickshire Police covers the 764 square miles of Warwickshire it serves a population of 535,100 and employs 804 police officers, 189 specials and 697 police staff (which includes 86 community support officers).

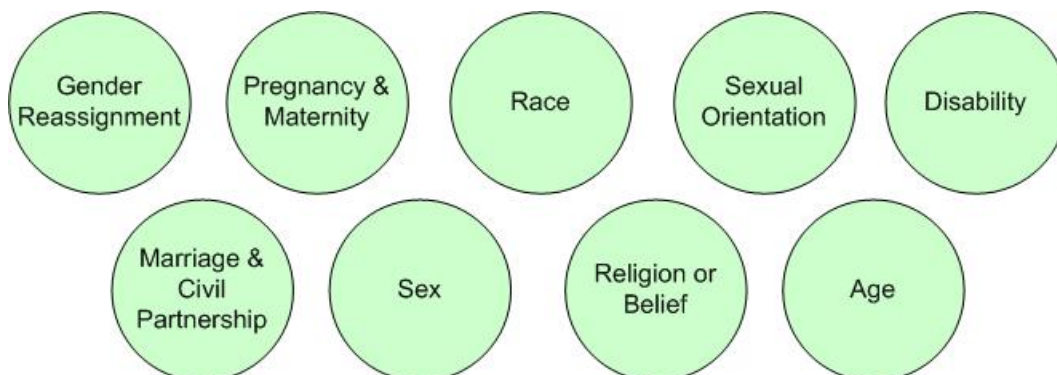
3.0 CONTRACTORS

Any person or undertaking or other legal entity entering into; or involved with a contract with the organisation for the supply of goods or services, including sub contractors (hereafter called contractors) and staff employed by the Force carrying out construction work.

4.00 STAFF / VOLUNTEERS

Any person employed by the PCC / Force or its contractors
Any person not specifically referred to above

5.00 THE EQUALITIES ACT 2010 – THE NINE DEFINED PROTECTED CHARACTERISTICS:



Appendix B: Safe Use Of Temporary Portable Heating Appliances

This guidance note provides information on the restrictions and safe use of portable heating appliances in Force buildings.

The use of portable heating appliances represents a serious fire safety risk and should be discouraged at all locations. In certain circumstances some locations may require additional space heating in order to achieve a satisfactory thermal environment e.g. during extreme weather conditions or normal equipment failure.

Where portable heating appliances are used the following criteria must be met:

- Only portable electrical appliances should be used, preferably an oil filled electric radiator, or by prior approval a fan heater or convector heater. All electrical appliances must be PAT tested and be in good condition.
- Calor gas space heating or electric bar fires are not permitted.
- Personal equipment should not be brought in from home and used.
- The heater should be stable and should be sited so as to prevent burns from contact with hot surfaces.
- Portable heaters should be used on a temporary basis only. However, if required for an extended period, the installation of fixed heating should be investigated.
- The heater must be regularly tested and inspected. It must be identified on the Portable electrical appliance register and, an in-date pass sticker, clearly displayed.
- Flammable or combustible materials should not be placed on or near the heater. Heaters must not be used for drying clothes.
- Any leads or extension cables must not present a trip hazard. Coiled extension cables must not be used. The extension cable must be tested and inspected as well as suitably fuse rated for the appliance being powered.
- Heaters must be turned off when the area is not occupied. Check that any timers or thermostats are operating correctly. The last person leaving the office must check that all heaters have been switched off or are unplugged.
- Additional vigilance and care should be undertaken where electrical space heating has been provided. e.g. ensuring fire doors are kept shut.
- You should never cover heaters with items such as clothing to dry them out whether they are combustible or not, or stand clothing too close to the heater as this will cause the heater to overheat and present a fire risk.

Appendix C: Temperature & Humidity in Data Rooms

No operational data centre is without some variance in delivered temperatures. It is highly recommended that in designing new installations that consideration is given to some form of containment to create the temperature consistency necessary to allow for higher facility set points, however, we are limited by our least-tolerant IT equipment.

Temperature Range.

Most modern servers are designed to operate at between 10c and 35c. Care should be taken when operating over 25C as most server ventilation fans are designed to increase in speed to accommodate the higher air intake temperatures.

This leads to increased energy use of the fan and potential noise problems

An average room temperature of 22c should be maintained.

Manufacturer	Model	Temp C	Humidity
IBM	eServer xSeries 225	Min 10° Max 30°	8 - 80%
Dell	PowerEdge 4400	Min 10° Max 35°	8% to 80% non-condensing
Cisco	MXE 300	Min 10° Max 35°	10% to 90% non-condensing
HP	server rx4610	Min 5° Max 35°	20% to 80% non-condensing

Humidity Range

Whilst Relative Humidity (RH) is the most recognised measurement of humidity, modern standards also refer to the Dew Point which is a measure of Specific Humidity (SH). Historically the key issues associated with humidity are static electricity and the effects of the content and rate of change of change of moisture in the air on paper and magnetic tape systems.

Modern equipment with correctly earthed racks, components and raised floors along with good maintenance procedures has rendered close control of humidity redundant.

There is little data to support the business case for the use of humidification in the prevention of equipment failure. The majority of the telecoms industry uses no humidification.