

# **University Of Hull - Heating and Cooling Policy**

## **1. Objective**

This document seeks to clarify the position regarding internal space temperature limits that colleagues may be exposed to, highlights relevant legislation, and supports the implementation plan to achieve HEFCE, Government and the University's current Carbon Management Plan (CMP) Objectives.

## **2. Background**

We are aware that in some instances, space temperatures in certain areas of our buildings can feel uncomfortable for some colleagues. We will endeavour to minimise these occurrences but will also need to consider the use of the room, high energy use, financial constraints, and our commitment to carbon reduction and the environment.

We intend to achieve this target, and maximise funding, using the following principles:

- Reduce consumption at source by turning things off.
- Adopt the principles of passive design to minimise unavoidable consumption for heating or cooling.
- Install the most energy efficient equipment available.
- Design around natural ventilation (feedback informs us this is the preferred option).

We feel that it is appropriate to produce a policy to inform colleagues of the provision that can be expected and the limitations on what can be achieved.

## **3. Space Temperature Limits**

Whilst there is legislation regarding heating for both minimum and maximum temperatures, there is currently no maximum temperature limit for summertime cooling. The Health and Safety Executive (HSE) has stated that it is inappropriate to set and enforce a maximum working temperature because thermal comfort cannot be determined by air temperature alone.

## **4. Cooling**

Air conditioned and mechanically ventilated spaces use around twice as much energy as naturally ventilated areas and generate more complaints. In addition, due to the cycle of the academic year, many parts of the buildings are unoccupied over the summer period when peak temperatures occur more frequently, so low energy solutions are more appropriate. The University's Energy Manager suggests summertime peak design temperatures are 23°C, plus or minus 3°C, for a normal office. These are for guidance only.

## **5. Cooling Policy**

As a general rule we will not consider funding the installation and running costs of air conditioning systems unless they are required:

- By regulation or enforceable code of practice.
- By specific items of equipment which have very specific operating temperatures and are fundamental to the running of our University, such as server rooms.
- Because natural ventilation is insufficient to remove heat gains and/or provide the necessary changes of air.
- Because occupancy and/or equipment consistently raise the ambient temperature to above 30°C for a minimum period of two hours.

Where areas are overheating, a thorough appraisal should be carried out to ensure that all alternative options have been considered before air conditioning or mechanical ventilation is installed. These will include:

- Ensuring any heating is not operating in the area and any hot pipes are insulated.
- Providing window blinds and/or desk or ceiling fans.
- The installation of window film and/or solar shading devices.
- Management of the use of heat producing equipment to reduce heat gains.

The use of mechanical ventilation is preferred to full air conditioning. If it is deemed that cooling should be installed, then the Estates Directorate will agree on the cooling strategy with colleagues before detailed design begins. All installed cooling equipment will:

- Be as energy efficient as possible,
- Interface with the building energy management system, and
- Contain refrigerant gases that have zero ozone depletion potential.

Where air conditioning or mechanical ventilation is already installed, the space temperature should be set no lower than 23°C and the system set to provide cooling only when the space is occupied. All doors and windows of the conditioned space should remain closed and no portable heaters should be in operation to warm up an overcooled space.

Portable air conditioning units are not permitted for use in our University buildings unless they are installed with the agreement of the Estates Directorate.

## **6. Heating**

The Workplace (Health, Safety and Welfare) Regulations 1992 and the associated code of practice states that: 'During working hours a reasonable internal temperature must be maintained and this must not be less than 16°C unless the work involves severe physical effort in which case the temperature can be lowered to no less than 13°C.'

## **7. Heating Policy**

We will endeavour to maintain working time space temperatures of between 19 and 21°C in all our non-residential buildings, with the exception of areas not used as office accommodation or teaching space (i.e. workshops, plant rooms, staircases etc.). The minimum maintained temperature for all work spaces will be no less than the statutory minimum.

For the majority of buildings, working hours are deemed to be 9:00am to 5:00pm Monday to Friday unless other arrangements have been agreed, such as facilitating evening classes and Library operating times. The Estates Directorate will work with colleagues to concentrate evening and weekend operations within specific buildings; operations outside of these buildings will incur a heating service charge. Outside these times, the heating will be 'set-back' to background conditions of 10 – 12°C.

The heating season generally runs from 1<sup>st</sup> November to 30<sup>th</sup> April depending on weather conditions. For the majority of cases, we are unable to heat specific offices or floors outside normal operating hours although some areas may have a set-back temperature.

Where areas are too cold, a thorough appraisal will be carried out to ensure that all alternative options have been considered before portable heaters are used. These will include, but are not limited to:

- Ensuring cooling is not operating in the area.
- Draught proofing.
- The installation of secondary glazing.
- Opportunities to increase insulation.
- Layout of office furniture in relation to radiators and windows.

If the solution requires a larger project to be initiated then the Estates Directorate will agree on the heating strategy with colleagues before detailed design begins and agree a short term solution, i.e. portable heaters. All heating solutions will:

- Be as energy efficient as possible, and
- Interface with our building energy management system.

Portable electric heaters may not be used unless consent has been given by the Estates Directorate and the heaters have been PAT tested and approved to be plugged into specific sockets to avoid overloading of power circuits.

There are limitations with some of our heating systems due to their age and layout which may mean that it is not possible to meet the above criteria in some circumstances.

## **8. Cleaning Staff**

Heating may be provided at 16 C from 6:00am in certain buildings to maintain a comfortable environment for the cleaning staff.

## **9. How you can help to save energy**

There are several measures that staff and students can take to limit the extremes of temperature and to help save energy:

- Dress appropriately for the weather.
- Drink hot or cold drinks depending on the conditions.
- Close windows when the heating is on.
- Keep windows and doors closed in air conditioned rooms.
- Make use of window blinds and curtains in hot weather to reduce solar gain.
- Make use of flexible work times where appropriate to avoid extremes of temperature.
- Look to work in areas that are already air conditioned, mechanically ventilated, or heated, possibly through the use of hot desks.
- Take regular breaks.
- Site workstations away from heat or cold sources, such as radiators and windows.
- Switch off unnecessary electrical equipment and lighting, particularly in summer as these can contribute significantly to heat gains.