Photocopier emissions

What substances do photocopiers/laser printers emit?

Photocopiers and laser printers emit hydrocarbons, ozone, volatile organic compounds (VOCs) and dust from paper and toner.

What is the official guidance regarding these emissions?

There is specific guidance regarding levels of ozone and specific VOCs in the workplace. For example, the Health and Safety Executive’s guidance note on Occupational Exposure Limits (EH40) for ozone is 0.20ppm (parts per million) over a 15-minute reference period. Further information on ozone, VOCs and particulates is available in our specific guides on these subjects.

How can I limit these emissions?

Most modern photocopiers and laser printers are already fitted with filters which limit the amount of gases and dust which are released into the atmosphere. Furthermore, toner release from modern photocopiers with replaceable toner cartridges minimise exposure. These factors ensure that even when equipment is operating in the minimum specified environmental conditions (i.e. the machine is situated in the smallest sitting location recommended and with only natural ventilation to the room), it meets all the national and international occupational exposure limits for ozone. It is therefore unlikely that any additional filters need to be fitted to your photocopiers.

The problems commonly associated with photocopiers and laser printers, such as heat gain and odours, can be minimised by ensuring that there are adequate quantities of outside air being introduced to the area combined with an efficient extract system to remove the odours and dust. A regular maintenance programme will also ensure that the machinery and their filters are in good working order.

What are the health effects of these emissions?

Office equipment such as photocopiers, and whether their emissions can be linked to lung disease, has long since been a subject of debate. However, for well-maintained photocopiers and laser printers no health problems linked to their use should be observed.

How can I be sure that the emissions are within the recognised limits?

If you feel that the current filters on your photocopiers or laser printers are inadequate, the best course of action would be to ask the advice of the manufacturer of the equipment for a copy of their material safety datasheet (MSDS). Alternatively, you could ask an independent organisation to measure the levels of particulates, airflow and gases, such as ozone, in the area in which the equipment is situated.

This guide is of a general nature; specific advice can be obtained from Elementus.