



Domestic electrical appliances in an industrial setting

What is the hazard?

Domestic electrical appliances, including radios, coffee makers, heaters, refrigerators and the like, can be a fire hazard in an industrial environment.

Employees often want to bring old electrical appliances to their workplace. However, domestic appliances, especially old models, are not designed for harsh industrial environments. Electrical faults caused by prolonged use, old components, dusty or damp environments and poor maintenance may cause a short-circuit, which can result in a fire.

How to reduce the risk

The company should have a formal policy, which clearly states that employees are not permitted to bring their own electrical appliances to the workplace. A thorough review of the facilities, especially production and warehouse areas, should be carried out to identify all small electrical appliances. If domestic models are found, then the company should replace them with new appliances, which are specifically designed for use in industrial environments.



In general, electrical appliances should be placed on a non-combustible surface and located in a room equipped with automatic fire detection. In addition, there should be no combustible materials stored within 0.5 m of the appliances, and none stored above them. The appliances should automatically switch themselves off after use. If this functionality - built in to the appliance - is not available, then a timer switch should be used on the power supply. Coffee makers should brew to a thermos pot instead of using a hot plate, and toasters and electric rings should not be permitted outside of a purpose-built kitchen. Extension cables should be used with care and never be connected in series. Plugs hanging with the weight of the cable, pulling the plug from the socket, should be avoided.

When all of the small electrical appliances have been identified, they should be individually included in the maintenance programme for the site. This should involve a visual inspection, carried out on an annual basis, by a qualified electrician, and where appropriate testing to ensure that the provisions for earthing are adequate. Appliances that fail the maintenance inspection should be immediately taken out of service.

The self-inspection programme for the site should include small electrical appliances, to the extent that their age, condition and position is regularly monitored. The self-inspection programme should also identify recent models of old domestic appliances, which have been brought to the site, and ensure they are immediately removed and reported to the department managers.

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