

No : 12/2013
Date : 21 May 2013



AIRPORT EMERGENCY SERVICE

FIRE SAFETY CIRCULAR

To All Airport Staff and Tenants

FIRE SAFETY TIPS ON THE SAFE USE OF ELECTRICAL EQUIPMENT, APPLIANCES, CORDS, PLUGS AND LIGHTS

Recently, the Airport Emergency Service (AES) attended to an electrical overloading incident involving a NETS transaction machine, a cashier's register and a refrigerator connected to one electrical power point using an expansion plug. Electrical overloading subsequently occurred resulting in a burning smell being emitted and AES fire crew being activated to the scene. (See Annex A). An electrical overloading or fire is defined as an incident that involves some type of electrical failure or malfunction as a factor contributing to ignition. To lower the risk of an electrical overloading or fire in your premises, the following are fire safety tips on the safe use of electrical equipment, appliances, plugs, cords and lights. (See also Annex A)

- i) Only use electrical equipment that has the label of a recognized testing laboratory.
- ii) Check and replace cracked, damaged or loose electrical plugs, cords and connections. If you have older cords with cloth covering, check for and replace frayed cords. Never use tape to connect or secure electrical fittings, wirings or connections.
- iii) Avoid pinching electrical cords against walls or furniture or running them under carpets or across doorways or expose them in areas where they may be susceptible to physical damage.
- iv) When unplugging a cord or appliance from a socket, pull the plug and not the cord to prevent wiring damage.
- v) If an appliance is malfunctioning, unplug it if it is safe to do so. If necessary, cut off power by turning off the circuit breaker.

- vi) Only plug one heat-producing appliance such as a coffee maker or toaster into a power outlet at a time.
- vii) Never plug major appliances such as refrigerators, freezers, coffee pots and microwave ovens into an extension cord or expansion plug.
- viii) Extension cords and expansion plugs must be plugged directly into the power source without adaptors and should not be used or connected together.
- ix) Use extension cords and expansion plugs for temporary wiring only and consider having additional circuits or outlets added by a qualified electrician.
- x) Where possible, all electrical equipment and their power outlets should be switched off when not in use to reduce component wear and tear, possible overheating and fire. Combustibles such as newspapers and cardboard boxes should not be placed near electrical equipment to reduce fire incidence and spread. Computers on 24 hr operations should be switched off for at least 1 hr per day to prevent overheating.
- xi) A qualified electrician should be engaged annually to check the electrical equipment, fittings and loading in the premises. Premises with 24 hr operations are encouraged to do this check on a more regular basis and have a comprehensive maintenance schedule to detect potential electrical defects and problems. **For tenants in CAG buildings, the annual qualified electrician check form shall be produced for AES inspection upon request.**
- xii) Standard electrical sockets in Singapore are designed to provide 13A of power per socket. Drawing more than 13A per socket will lead to potential overloading and overheating of the socket. For example a standard microwave oven, refrigerator and coffee maker will draw 15A (5A + 6A + 4A) of power if plugged into a single socket.
- xiii) Consult a qualified electrician before replacing existing light fittings in the premises to prevent overloading of electrical switches. Lighting ballasts used should be replaced according to the manufacturer's or qualified electrician's recommendation.

The qualified electrician should also ensure that light bulbs/tubes fit tightly into their sockets to prevent arcing and that the wattage rating of the light starter and light tube matches. Any light bulb/tube found discoloured i.e. bright yellow/orange/brown/black should be replaced immediately. Do not hang any combustibles on lighting fixtures as these may also catch fire if the lights catch fire.

- xiv) Work on the electrical distribution network or equipment should only be conducted by someone qualified as an electrician. Visit www.ema.gov.sg to engage a Licensed Electrical Worker (LEW) for all electrical works. Call a qualified electrician/LEW or the landlord if you have:
- a) Recurring problems with blowing fuses or tripping circuit breakers;
 - b) A tingling feeling when you touch an electrical appliance;
 - c) Discolored or warm wall outlets;
 - d) A burning smell or rubbery odor coming from an appliance;
 - e) Flickering or discoloured lights;
 - f) Sparks from an outlet or electrical equipment.

2 It is strongly urged that each individual working in Changi Airport does a visual check on their work station electrical equipment or appliance before starting their daily work functions each day so that potential electrical defects and problems can be detected at an early stage.

3 AES will not hesitate to issue a stern warning and/or a service charge of SGD350.00 per hour or part thereof for any fire vehicle turnout due to burning smell incidents, false alarm activations or fires caused by negligence or ignorance of airport fire safety requirements. This Fire Safety Circular supersedes Fire Safety Circular 07/2013. For further clarifications, you may contact the Airport Emergency Service Fire Safety Unit (AES FSU) at 65412535 or at fire.safety@changiairport.com.

NAZRI BAMADHAJ
for SUPERINTENDENT, FIRE SAFETY
AIRPORT EMERGENCY SERVICE

Annex A

ELECTRICAL OVERLOADING INCIDENT INVOLVING A NETS TRANSACTION MACHINE, A CASHIER'S REGISTER AND A REFRIGERATOR CONNECTED TO ONE ELECTRICAL POWER POINT USING AN EXPANSION PLUG IN MAY 2013



FIRE SAFETY TIPS ON THE SAFE USE OF ELECTRICAL EQUIPMENT, APPLIANCES, CORDS, PLUGS AND LIGHTS



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Check and replace cracked, damaged or loose electrical plugs, cords and connections. If you have older cords with cloth covering, check for and replace frayed cords.



Never use tape to connect or secure electrical fittings, wirings or connections.



Avoid pinching electrical cords against walls or furniture or running them under carpets or across doorways or expose them in areas where they may be susceptible to physical damage.



Only plug one heat-producing appliance such as a coffee maker or toaster into a power outlet at a time.



Never plug major appliances such as refrigerators, freezers, coffee pots and microwave ovens into an extension cord or expansion plug.



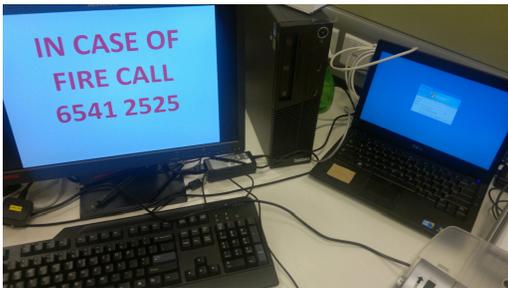
Extension cords and expansion plugs must be plugged directly into the power source without adaptors and should not be used or connected together.



Use extension cords and expansion plugs for temporary wiring only and consider having additional circuits or outlets added by a qualified electrician.



Combustibles such as newspapers and cardboard boxes should not be placed near electrical equipment to reduce fire incidence and spread.



Where possible, all electrical equipment and their power outlets should be switched off when not in use to reduce component wear and tear, possible overheating and fire. Computers on 24 hr operations should be switched off for at least 1 hr per day to prevent overheating.

Fire Safety Tips

Electrical sockets in Singapore outputs 13 Amperes

Appliance	Average Consumption of Current in Amperes
Microwave Oven	5
Refrigerator	6
Coffee Maker	4

Total Current Consumption = 15 Amperes



Standard electrical sockets in Singapore are designed to provide 13A of power per socket. Drawing more than 13A per socket will lead to potential overloading and overheating of the socket. For example a standard microwave oven, refrigerator and coffee maker will draw 15A (5A + 6A + 4A) of power if plugged into a single socket.



Lighting ballasts should be replaced according to the manufacturer's or qualified electrician's recommendation. Light bulbs/tubes should fit tightly into their sockets to prevent arcing. Wattage rating of the light starter and light tube should match. Light bulb/tube found discoloured i.e. bright yellow/orange/brown/ black should be replaced immediately.



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