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Electrical Equipment (inspection and testing)

Suggested inspection and test frequencies for electrical equipment on a construction site:

A documented system should be in place for the periodic inspection, testing and maintenance of all portable electrical appliances including extension cables, tools and other appliances with a plug and lead which are capable of being moved to comply with our duty to maintain all equipment so as not to give rise to danger. An appliance brought into the workplace by employees (or subcontractors) must also be subject to recorded checks and if necessary tested. This work must be carried out by a suitably trained competent person in accordance with procedures in the *Institution of Engineering and Technology's publication IEE Code of Practice* for in-service inspection and testing of electrical equipment.

- No user checks or inspections are required on battery operated power tools and torches including portable hand lamps to 25v
- Annual inspection and PAT is required for portable hand lamps 50v centre tapped earth secondary wiring (CTE)
- Weekly check with a monthly formal visual inspection and a PAT every 3 months on portable and hand held tools 110v (CTE)
- Daily check with a weekly formal visual inspection and a PAT every month on portable and hand held tools 230v (through RCD)
- Weekly check with a monthly formal visual inspection and PAT every 3 months on fixed equipment (eg hoists) fused or MCB
- Daily check with weekly formal visual inspection and PAT every 3 months on fixed Residual Current Devices (RCD)
- Monthly check with a half year formal visual inspection and an annual PAT on all site office equipment 230v

Each year about 1000 accidents at work involving electric shock or burns are reported to the HSE (approximately thirty of these are fatal). Most of these fatalities arise from contact with overhead or underground power cables. However, even non-fatal shocks can cause severe and permanent injury.

Shocks from faulty equipment may lead to falls from ladders, scaffolds or other work platforms. Those using electricity may not be the only ones at risk (poor electrical installations and faulty electrical appliances can lead to fires which may also cause death or injury to others). But most of these accidents can be avoided by careful planning and straightforward precautions.

References

Electrical Safety and You (HSE)
Electrical Safety on Construction Sites (HSE)
Institution of Engineering and Technology's publication IEE Code of Practice

Acknowledgement: This information has been reviewed and updated by Jim Slater (CDM-C and Health and Safety Advisor) www.jimslater.co.uk

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