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**DEFECTS IN CONSTRUCTION SERIES
RESIDUAL CURRENT DEVICE (RCD)**

PAM Practice Notes

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INTRODUCTION

Energy Commission/Suruhanjaya Tenaga (ST), a statutory body established under the Energy Commission Act 2001, is responsible for regulating the energy sector, specially the electricity supply and pipe gas supply industries in Peninsular Malaysia and Sabah.

Electricity supply is governed under Act 447 Electricity Supply Act 1990 [amended in 2015]. Under this Act are regulations which dictates the installation of devices to protect consumers from electric shock, supervision of installation, testing of equipment, registration competent persons and so forth.

WHAT ARE RCDs?

Residual Current Device (RCD) is a protection device to protect consumers from electric shock. It cuts down power supply instantaneously if an electric fault occurs in an electrical installation or electrical equipment. An RCD is designed to trip within the nominated leakage current and is installed in the distribution board.

This Practice Note is issued in consideration of widespread reported non-compliance for completed projects. Architects are advised to notify their Electrical Engineers to specify and ensure RCD devices installed comply with prevailing regulations stipulated by ST.

SENSITIVITY OF RCDs

Regulation 36 of the Electricity Regulations 1994 spells out the different sensitivity to its usage:

Clause 36(1): For a place of public entertainment and a place likely to be wet, a rated RCD < 10 mA. Is required

For example: To avoid shocks from Water Heater while using the shower, ensure that the RCD for each individual water heater is rated at 10 mA



Clause 36(2): For hand-held equipment, a rated RCD < 30 mA is required



Clause 36(3): For incoming supply up to 40A/63A single phase or depends on the need of supply and capacity of main switch, a rated RCD < 100 mA is required



Clause 36(4): For incoming supply exceeding 63A three phase, a rated RCD < 100 mA is required

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Prepared by: Ar. Au Tai Yeow