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To: All Licensed Electrical Workers

Dear Sirs

EARTHING AND BONDING

A metallic conduit or trunking housing electrical wiring may become live under fault conditions. It is vital to ensure that such metallic conduit or trunking and other simultaneously accessible extraneous conductive parts (such as water pipes, gas pipes, etc.) are effectively bonded to the earthing system of the electrical installation.

2 Your attention is drawn to clause 413-02 "Protection by earthed equipotential bonding and automatic disconnection of supply" of the Singapore Standard CP 5:1998 Code of Practice for Electrical Installations ("the Code"). In carrying out regular inspections of an electrical installation, you should check and ensure that the entire length of all metallic conduits or trunkings for electrical wiring and the metallic casing of all electrical equipment, including junction boxes, flexible metallic conduits, etc. are properly bonded to the earthing system of the electrical installation.

3 Low voltage (230 volts a.c.) sources are used for water level control circuits of water storage tanks in some older buildings. For such control circuits using low voltage supplies, you are advised to ensure that protection by earthed equipotential bonding and automatic disconnection of electricity supply are also afforded according to clause 413-02 of the Code. Alternatively, you may consider the use of separated extra-low voltage (SELV) in accordance with clause 411 of the Code for these control circuits, especially if the existing control circuits have deteriorated and need to be replaced.

4 For further clarification, please contact our officers at Tel: 68358050, 68358033, 68358056 or email to EMA_RD_ELISE@ema.gov.sg.

Yours faithfully

YEO YEK SENG
DY CHIEF EXECUTIVE
REGULATION DIVISION