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ELECTRIC DRIVE AS AN ENERGY-SAVING FACTOR IN UKRAINIAN INDUSTRY AND HOUSING AND UTILITIES SECTORS.....2

The paper presents the result of scientific researches made by Ukrainian universities and colleges in the field of energy saving using automatic electric drive. It gives case studies of successful implementation of these results in Ukrainian industry and housing and utilities sectors. It analyzes the results of work and gives conclusions to step up wide-scale modernization of electric drives in Ukraine.

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Key words: excess air factor, waste heat losses, air inleakage, boiler efficiency, incomplete combustion.

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The reasons for nuisance tripping of residual current devices (RCD) are analyzed in the article and the affect of many external factors is discussed. Solutions are described for avoiding faulty tripping of an RCD.

Keywords: residual current device, RCD, nuisance tripping, harmonic, differential current, leakage current

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Key words: traction substation, harmonic distortions, electronic meter, error, accuracy class.

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Key words: radiant ribbon, gas burner, radiant heater.

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I. A. DANJUSCHEVSKIY, S. V. PUCHKOV. EQUIPMENT OPERATION UNDER EXTREME SERVICE CONDITIONS, ITS SAFETY, RELIABILITY AND LIFE.....51

The paper considers modern approaches to evaluation of equipment residual operation life under extreme service conditions, basic principles of reliable, safe operation of hanger-support systems, steam and water pipelines, boilers, vessels and drums ensuring increased reliability and economical efficiency of heating equipment.

The authors point out the main factors of equipment long service life and a number of measures to determine and evaluate its actual condition.

The paper features effective solutions and applications of complex measures using energy system pipelines, drums and operating boilers offered by specialists.

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Key words: eclectic motor thermal model, analytical method, overheating, equivalent circuit.

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