

**A. A. ALEKSAHIN. ANALYSES OF HEAT LOSSES IN PIPELINES OF BRANCHED HEATING NETWORK CONSIDERING POSSIBLE DECREASE OF DESIGNED HEATING DEMAND OF BUILDINGS .....2**

*The paper estimates heat losses in pipelines in the situation of random heat insulation of buildings connected to the network based on benchmarking calculation for versions of branched heating network. It was found that minimum heat losses occur when the most distant buildings are heat insulated.*

**A. N. GANZHA, V. N. PODKOPAY. CHOICE OF RATIONAL PARAMETERS FOR HEAT OUTPUT FROM THE HEATING SYSTEM SOURCE.....8**

*The paper considers options for compensation of heat losses by the heat supply source when transferring heat energy in order to provide designed heat consumption as well as optimization of the key parameters of the heat-transfer medium aimed at minimization of costs spent on heat-transfer media. Il. 5. Bibliography. 4 name*

**Power engineering**

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**Yu. V. ROMASHOV. EXTERNAL INFLUENCING FACTORS AND SERVICE LIFE OF STRUCTURAL ELEMENTS OF STEAM PLANTS OF HEAT AND NUCLEAR POWER PLANTS.....14**

*The paper studies external factors influencing the service life, construction materials used and effects caused by external influencing factors in construction materials by processing and subsequent analysis of literature data on structures, working parameters and reliability indices of the elements of modern and next-generation structures of steam plants of heat and nuclear power plants. It was determined that the problem of service life in energy-generating steam boilers is particularly topical for heating surfaces, especially for steam superheaters, and in nuclear reactors - for fuel elements claddings, cooling water systems structures, some internals, steam plant heat-transfer tubes, and in nuclear fusion reactors - for the bodies of vacuum chambers and first wall of the blanket. The main influencing factors are internal power pressure, high temperatures, reactor radiations, presence of highly corrosive components in working mediums, activating processes of irradiation-induced swelling, heat and irradiation creep, corrosion damage and degradation of properties of materials.*

**T. I. OVCHARENKO, I. G. KIRISOV. PERFORMANCE EVALUATION OF STATIC COMPENSATING DEVICES IN INDUSTRIAL FACILITIES.....25**

*The paper deals with the issues of introduction of compensating units in electric networks of end-users in modern economic conditions. It determined economic feasibility of the power of compensating units that corresponds to their most effective use.*

**Alternative energy sources**

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**S. V. GRIDIN, S. A. VERTELA. ANALYSIS OF PERSPECTIVES AND METHODS OF USE OF GAS PRODUCED BY GAS PLANT IN ORDER TO DEVELOP ENERGY EFFECTIVE SOLUTIONS FOR ENERGY SAVING.....31**

*The paper considers the overall process of production of synthetic gas by the underground gasification method and possible perspectives of its further use.*

**Ekonomy**

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**E. N. PARFENOVA. PROBLEMS OF INVESTMENT MANAGEMENT IN A TERRITORY .....41**

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**ABSTRACT**

*The paper considers issues of improvement of investment management on the regional level under market economy conditions, which should facilitate effective development of social and economic sphere and real economy sector.*

**H. TROINIKOVA. ECONOMIC NATURE OF PROCESS SAFETY OF TRANSPORT SERVICE.....48**

*Both individuals and transport companies that offer a transport service seek to satisfy the need for safety. Out of five qualitative indices of a transport service two depend directly and two depend indirectly on process safety of railway transport process.*

*Investment and financing of safety of maintenance must be done in accordance to certain organization plans being a function of requirements to process safety on the basis of acceptable risk and that of status of the of a railway structure facility as the one falling into the category of public benefit.*

**Production and ecology**

---

**P. M. KANILO, V. V. SOLOVEY. M.V. SARAPINA. ANTHROPOGENIC AND ECOLOGICAL FACTORS OF GLOBAL CLIMATE WARMING.....53**

*The paper considers main anthropogenic and ecological that lead to the growth of carbon dioxide content in troposphere and respective global climate warming. It showed that to a great extent this is due to degradation and destruction of land and ocean photosynthesizing systems as a result of destruction of woodland, contamination of biosphere with supertoxicants, formation of oil slick on the surface of the global ocean.*

**Scientific and technical progress and efficiency of production**

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**V. A. KUTOVOY, A. S. LUTSENKO, Ju. G. KAZARINOV, A. A. NIKOLAENKO. ENERGY-SAVING METHOD OF PREPARATION OF SOLID FUEL TO BURNING.....61**

*A technique for thermo vacuum drying of brown coal was developed. The paper presents the structure of brown coal, determines its nitrogen and sulfur content after drying and gives measurement of humidity in dried brown coal. It shows that the thermo vacuum drying method improves quality of brown coal, decreases the amount of impurities in it, while comminuting it.*

**Management personnel of enterprises**

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**S. O. KOTZALAP, V. Ju. ULASEVICH. ANALYSIS OF PROBLEMS OF STAFF TURNOVER IN COMPANIES WITH DIFFERENT LINES OF BUSINESS.....67**

*This paper discusses reasons for staff turnover, ways to curb it, studies positive and negative aspects of staff turnover in companies with different lines of business.*

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