CONTENTS, ABSTRACTS AND KEYWORDS OF PAPERS

FIRST THEMATIC SECTION

TECHNIQUES TO REDUCE TRAKTION RESISTANCE OF TILLAGE MASHINES

A.S. Pavlyuk, D.V. Sotnikov

Abstract: This article discusses methods to reduce traction resistance of the soil-processing units. The results of field and laboratory tests published.

Keyword: reduction of traction resistance.

STUDY OF DESIGNHITCH FOR STABILITYMOTION TRACTOR UNITS

A.S. Pavlyuk, Y.I. Shenkneht

The influence of design parameters towing devices stability of motion of the machine - tractor unit. Sustainability assessment conducted by the level of vibrations azimuth tractor and towed guns. The results of assessments of the stability of motion of different options towing devices.

Keywords: resistance movement, maneuvering, machine-tractor, trailer coupling, hitching bracket, linkage, position of the instantaneous center of rotation, course angles drawbar length, dispersion of the oscillations, the spectral density.

ENVIRONMENTAL IMPACT ASSESSMENTS IN CONFINED AIR CHANGES IN AGRICULTURAL PRODUCTION

A.L. Novoselov, A.A. Melbert, K.S. Bokov

The paper presents a model of environmental pollution by harmful emissions of mobile machinery engines in confined air exchange, which allows to predict the ecological situation and recommend to the use of particular methods and tools to ensure environmental security and good working conditions. The data on the components of the space using machine-tractor units in agricultural production.

Keywords: agricultural production, granary, environmental pollution, environmental safety, air exchange.

APPLICATION EUXENITE ORE COMPOSED OF CATALYTIC MATERIALS FOR CLEANING GASES OF DIESEL ENGINES

A.L. Novoselov, N.N. Gorlova, G.V. Medvedev

In this paper, the authors have identified the main characteristics and properties of materials based on ores euxenite obtained high-temperature synthesis. Work was carried out to determine the thermal conductivity of porous permeable catalytic materials obtained on the basis of high-temperature synthesis euxenite ore.

Keywords: composites, emission control, cleaning efficiency, catalytic properties, charge.

TECHNOLOGIES TO COMBAT DESERTIFICATION MONGOLIA IN THE WEST

A.A. Sitnikov, S.F. Sorochenko, V.A. Dryuk, Ye.N. Nefyodov, M.Yu. Shishin, V.A. Kutsiy, A.A. Tomarovskiy, S.A. Suvorov, Yu.N. Kamyshov

Article deals with the problem of land desertification. To solve this problem, technology is proposed for reclamation of sandy soils. The technology includes Spreading nutrient composition and water-keeping crop drought-tolerant plants. The results of tests accompanying technology in the Republic of Altai and Mongolia.

Keywords: desertification areas, soil degradation, water-keeping nutrient composition, sandy soil reclamation.

USE OF IRIDIUM IN THE PREPARATION OF POROUS PERMEABLE CATALYTIC MATERIALS FOR CLEANING EXHAUST GASES OF DIESEL ENGINES

A.L. Novoselov, N.N. Gorlova, D.S. Pechennikova

The paper considers the possibility of iridium in the treatment systems of diesel exhaust emissions. Adding iridium positive effect on the degree of cleaning emissions and improving physical, chemical and mechanical properties of the resulting catalyst material. In this paper we studied the effect of iridium content on porosity, permeability, mechanical strength, toughness and other properties of the resulting material.

Keywords: iridium catalytic ability of the material, charge, self-propagating high-temperature synthesis.

MATHEMATICAL MODELLING OF CONTROLLED MOVEMENT OF THE WHEEL CAR ON THE SET TRAJECTORY

V.I. Poddubnyi, M.L. Poddubnaja

The short description of structure of a control system of the wheel car movement, mechatronic model of the wheel car with an electromechanical control system in applied software package CAMeL-View and in MATLAB-SIMULINK, results of mathematical modeling of movement on a set trajectory are given.

Keywords: control system of movement, the wheel car, mechatronic model, Pi-regulation, mathematical modelling.

EFFECTIVE MOTION TRAJECTORIES GRANULES IN A PADDLE MIXER

Y.A. Shaposhnikov, N.A. Cherneckaya

The process of preparing a mixture of granules fertilizer with irrigation water in a horizontal machine with radial blade mixer. The characteristics of the interaction between granules and mixer blades. Presents an analysis of the path of the granules in the capture of its blade.

Keywords: mix, granule, mixer blade, shaft angle, rotation, speed, process, mixing, mode, track, trajectory.

CHOICE OF MATERIALS FOR HEATISOLATION OF FUEL LINES OF THE TRACTOR DIESEL

E.M. Tausenev, K.V. Koh, A.E. Svistula, E.A. German

Heat insulators for the purpose of application on fuel lines in the engine compartment of agricultural tractor are investigated. The technology of a heat insulation of fuel lines is offered.

Keywords: diesel, diesel fuel system, engine compartment, diesel fuel temperature, air temperature in an engine compartment, heat insulation of fuel lines.

NUMERICAL AND EXPERIMENTAL INVESTIGATION OF INTERNAL BALLISTICS CHARACTERISTICS OF PRODUCTS WITH INDEPENDENT ELEMENTS

G.V. Sakovich , A.A. Trubnikov, G.N. Nesterov, B.V. Pevchenko, V.O. Popov

Presented unsteady gasdynamic model calculation vnutriballisti -cal characteristics , the results of numerical modeling of the results og nevyh tests of products with 36 mm in diameter and open channels with independent ele-ments . Removable elements are made of inert material , and Wood's alloy composition APC - 235P .

Keywords: product 36 mm in diameter , removable elements vnutriballistiche -cal characteristics , high-energy filler.

RESEARCHES OF HARMFUL EMISSIONS WHEN BURNING WATER COAL FUEL IN HEATGENERATING I NSTALLATIONS OF LOW POWER

V.I. Murko, V.I. Fedyaev; V.I. Karpenok; D.A. Dzuyba,
V.N. Delyagin, N.M. Ivanov , V.J. Batishev

The article is about the results of harmful substances concentrations results in the off–gases at bench and pilot tests of vortex technology of suspension water–coal slurry (WCS) burning. It is shown that the worked out technology of liquid coal fuel burning let significantly reduce the emissions substances emission into the atmosphere.

Keywords: heat generating unit, hydrocarbon fuel, turbulent combustion, fuel slurry, the concentration of harmful substances.

MODEL OF SEPARATION OF GRAIN IN CLEANING SYSTEM AT THE CROSS LIST OF THE COMBINE HARVESTER

S.F. Sorochenko

The model of separation of grain is presented in article in system of cleaning of the combine harvester working at slopes with a cross list of a thresher. The mathematical model has an appearance of indicative dependence. Unevenness of distribution of grain lots on a sieve is estimated by means of coefficient of a variation of grain lots. The method of calculation of coefficient of a variation is offered. Results of comparison of losses of grain behind system the cleanings received experimentally and on developed mathematical model are presented.

Keywords: separation model, cleaning system, combine harvester, slopes, coefficient of a variation of grain lots.

SECOND THEMATIC SECTION

METHOD OF FORECASTING OF TECHNOGENIC RISKS ON THE BASIS OF THE THEORY OF INDISTINCT SETS IN SYSTEMS OF A RURAL ELECTRICAL SUPPLY

O.K. Nikolsky, H.P. Vorobev, N.I. Tcherkasov, A.F. Kostyuk

Program realisation of a method of forecasting of technogenic risks on the basis of the theory of indistinct sets in systems of a rural electrical supply is considered. The substantiation is given a method of reception of the likelihood average not received in addition electric power in systems of a rural electrical supply. The indistinct model for calculation of expected probability of losses of the electric power in systems of a rural electrical supply is generated. The algorithm of an estimation of risk in systems of a rural electrical supply 10/0,4кВ is developed.

Keywords: risk, electroinstallation, model, indistinct sets, technogenic.

SYSTEM ANALYSIS OF TECHNOGENIC DANGERS ELECTRICAL INSTALLATIONS OF BUILDINGS

O.N. Drobyazko, A.A. Soshnikov

The article presents the results of a system analysis of species technogenic danger electrical installations buildings as a methodological basis for the development of comprehensive system ensure the safety.

Keywords: electrical installation, danger, safety, electrical shock, fire, short circuit, overload, electromagnetic radiation, security system.

BASIC APPROACHES TO THE ANALYSIS OF INTEGRATED RISK OF HUMAN-MACHINE SYSTEMS

A.F. Kostjukov, N.I. Cherkasova

A classification of methods for the analysis of technogenic risk in relation to human-machine system (human-electrical installation environment). Is substantiated complex index (integrated risk R_{Σ}), taking into account the possibility of committing a dangerous event and its consequences. A procedure for the assessment, prediction and management of integrated risk. Formulate the general optimization problem safety measures electrical installation.

Keywords: human-machine system, electrical installation, integrated risk.

DIRECTIONS FOR THE USE OF MATHEMATICS UNCERTAINTY IN THE DECISION OF TASKS MODELING AND OPTIMIZATION SECURITY SYSTEMS FOR ELECTRICAL INSTALLATIONS

O.N. Drobiazko, S.F. Nefedov

This article examines the background and using the mathematics of uncertainty in the decision of problems of modeling and optimization of systems of safety of electrical installations.

Keywords: electrical installation, security system installations, modeling, optimization, the uncertainty of the initial data, the mathematics of uncertainty, interval analysis, theory of fuzzy numbers.

TO THE QUESTION ON FORMATION OF EXPERT SYSTEMS OF THE ESTIMATION OF INTEGRATED RISK OF ELECTROINSTALLATIONS (PRINCIPLES OF CONSTRUCTION OF IMITATING MODEL)

O.K. Nikolsky, H.P. Vorobev, N.I. Tcherkasov, A.F. Kostyuk

Program realisation of a method of forecasting of technogenic risks in systems of a rural electrical supply on the basis of the theory of indistinct sets is considered. The five-ball linguistic scale of integrated risk with interval values is entered. The technique of the account of a share (weight) in aggregate the reasons of occurrence of risks is offered by working out of indistinct system of forecasting of technogenic risks in systems of a rural electrical supply. The algorithm of definition of an indicator of integrated risk of electroinstallations on the basis of expert and experimental data is developed. The error of definition of an indicator of integrated risk of electroinstallation is estimated.

Keywords: risk, electroinstallation, model, indistinct sets, technogenic.

RESEARCH OF INFLUENCE OF LONGITUDINAL DEVICES REACTIVE POWER COMPENSATION ON THE RELIABILITY AND ECONOMY OF LICHNOSTI AGRICULTURAL SUPPLY

A.V. Bastron, L.P. Kostyuchenko

In the article the results of research on the simulation model created in MATLAB modes rural transmission lines 10 kV with application of devices for longitudinal compensation.

Key words: electric network, simulation model, device for longitudinal compensation of the reactive power.

OPTIMIZING THE ANGLE OF RECEPTION AREAS AND THERMAL SOLAR COLLECTOR WHEN OPERATED IN CONDITIONS OF KRASNOYARSK

A.V. Bastron, M.R. Muratov

Article consists the results of modelling of solar radiation coming on randomly oriented reception area and the calculation of the thermal solar collector when the optimum angle for use is climates of State Krasnoyarsk.

Keywords: heating, solar power, solar water system, solar collector, heat output, simulation, Excel, optimization.

BY ESTABLISHING A FRAMEWORK FOR DECISION SUPPORT ELECTRICAL SAFETY PROBLEMS TECHNOGENIC

G.A. Goncharenko

The general principles in reducing risk of electrical buildings. The necessity of creating a decision support system using mathematical and heuristic models.

Keywords: electrical installation, technological risk, residual life, initiating events.

QUANTIFY THE TECHNOLOGY SAFETY

A.A. Soshnikov, B.S. Kompaneets

The article describes the quantitative indicators characterizing dangerous manifestations of controlled processes in technologies provide electrical and electromagnetic safety.

Keywords: electrical safety, electrical fires, short circuit protection, electro-magnetic radiation, permissible time, the picture of danger.

PROSPECTS DISTRIBUTED ENERGY AGRICULTURAL REGIONS OF SIBERIA

V.N. Delyagin

The article deals with topical issues of development of power supply system in rural areas of Siberia. The calculations of prospective tariff for electricity for agricultural consumers. The efficiency of the use of Autonomous sources of electricity. The expediency of elaboration of the state program of rural reconstruction of electric networks.

Keywords: elektroenergetiki, an autonomous source of energy, renewable energy, agriculture.

ENERGY EFFICIENT NANOSTRUCTURED COMPOSITE HEATERS FOR THE AGROINDUSTRIAL COMPLEX

A.B. Dorosh, T.M. Khalina

Solved the problem directional design of energy efficient dispersed filled polymeric materials, nanostructured material in the form of technical carbon on the basis of definition of parameters of structural - oriented model with finding quantitative and qualitative characteristics of integrated methods of optical, scanning and transmission electron diffraction microscopy.

Keywords: dispersed filled polymeric materials, energy efficient composite electric, self-regulation.

MAIN DIRECTIONS OF SMALL-SCALE MECHANIZATION IN AGRICULTURE

A.F. Kalinin, T.V. Eremina

The analysis of power saturation state and application of electrified small mechanization in agriculture. The characteristic of the electrification of rural infrastructure and living conditions. The classification of small-scale mechanization. The prospects of using protective cutout device (PCD) when working on electrical installations.

Keywords: small-scale mechanization, energy saturation, power consumption, security, electrical protection, protective devices.

THE PROBLEM OF UNCERTAINTY IN RISK ANALYSIS ELECTRICAL

N.I. Cherkasova, A.F. Kostjukov, D.C. Nikolsky

The concept of uncertainty within the context of risk assessment hazard installation. A classification of uncertainty man-machine system and development model on the example of man-made hazards (people - electrical installation - Friday).

Keywords: man-made hazards, electrical risks, uncertainties.

SEMICONDUCTOR DEVICE FOR THREE-PHASE MOTORS START BESKONDENSATORNOGO AGRICULTURAL MACHINERY FROM A SINGLE-PHASE NETWORK

S.Y. EREMOČKIN, T.N. PIVKINA, A.G. KVITKO

Article examined the development of semiconductor devices, enabling starting and operation of three-phase asynchronous short-circuit motors of electric machines of a single-phase network. is developed by the automatic control system device launch beskondensatornogo, and made the appointment of key elements of the autopilot.
Keywords: three-phase asynchronous motor, automatic control system, power.

PREDICTING THE LEVEL OF SECURE RURAL DISTRIBUTION NETWORKS OF 10 KV

I.V. Naumov, Y.M. Ivan'o, A.V. Lanin

Developed software «Forecast - 2+» allows to forecast the number of faults in the power supply system with a forecast period equal to one year. In the program the opportunity to replenish and update the database on faults, as new statistical information. Application software «Forecast - 2+» is considered an example of statistical information on the doses of refuse in rural electric networks 10 kV Irkutsk region.
Keywords: forecasting, reliability, electric networks, overhead lines of an electricity transmission, wires, pylons, faults, service, software.

WAYS OF THE ESTIMATION OF WORKING CAPACITY OF ADJUSTING CONDUCTINGS

A.F. Kostjukov

A number of the ways is developed, allowing to make an estimation of working capacity of adjusting electroconductings and definition of time of their time between failures at various modes of loading and operation conditions.
Keywords: electroconducting, operation, time between failures time, reliability, an impedance, a residual resource.

THE METHOD OF EXPERT EVALUATION OF THE INTEGRATED THE RISK OF ELECTRICAL INSTALLATIONS OF 380/220 V

O.K. Nikolsky, N.P. Vorob'ev, N.I. Cherkasova, A.F. Kostyukov

A new approach to the estimation of technogenic risk in relation to electrical installations of buildings and constructions. The substantiation of the structure of analytical network for control of the integrated risk R_{Σ} man-machine system. The list of risky factors set their frequency and provided linguistic evaluation. Principles of the simulation models (H-EU-Sec).
Keywords: risk, electrical, human-machine system, simulation model.

EFFICIENCY AND PROSPECT ASSESSMENT THE INTEGRATED CONTROL OF THE ELECTROMAGNETIC RADIATIONS

A.A. Soshnikov, E.V. Titov

In article questions of realization and an assessment of efficiency of a new way of the integrated control of danger of electromagnetic radiations are considered, and also prospects of its practical use are defined.

Keywords: electromagnetic situation, sources of electromagnetic radiations, the computer modeling, the integrated control of electromagnetic radiations, picture of danger of electromagnetic radiations.

DEVELOPMENT OF EFFICIENT BIOTECHNOLOGICAL SYSTEMS FOR EXAMPLE DAIRY FARM AND SOLAR GREENHOUSE WITH HEAT ACCUMULATORS

V.T. Tajsaeva, L.R. Mazaev

This article describes a method of creating energy efficient biotechnological systems. There presents an example of modeling of the solar greenhouse that is of great energy efficiency. The discussion over the method for determining the energy efficiency of the batteries heat with heat-accumulating nozzles is provided.

Keywords: sustainable development, energy efficiency, modeling of biotechnological systems.

ACOUSTIC WAYS OF THE CONTROL OF ADJUSTING ELECTROCONDUCTINGS

A.F. Kostjukov

A number of the acoustic methods is developed, allowing to make an estimation of working capacity of adjusting electroconductings and definition of time of their time between failures at various modes of loading and operation conditions.

Keywords: wiring, estimation, forecasting, operating conditions, testing, premature wear, check, measuring.

AUTOMATION OF INTEGRATED ELECTROMAGNETIC EFFICIENCY CONTROL USING A TECHNOLOGICAL PLATFORM BASIS

A.A. Soshnikov, I.E. Migalev

This paper presents a concept of creating a technological platform designed for the automation of integrated electromagnetic environment control. The main functional requirements and platform's modular structure are defined.

Keywords: electromagnetic environment, technological platform, electromagnetic radiation, integrated control, measurement automation, picture of danger level.

THE UNCERTAINTY FACTOR AT THE ANALYSIS OF LOADINGS ADJUSTING ELECTROCONDUCTINGS

A.F. Kostyukov

The impossibility of a prediction, power consumption and influence of climatic factors on it, predetermines impossibility of an exact estimation of deterioration of electroconductings and exact definition of probability of an emergency. Use for an estimation of working capacity of adjusting electroconductings of a mathematical apparatus of the theory of decision-making on the basis of procedures MATU is the most rational.

Keywords: a power consumption, deterioration, working capacity an emergency, a mathematical apparatus, decision-making, probability definition.

STUDY DISPERSION CHARACTERISTICS OF IMPACT-JET EMULSATORA IN PREPARATION SYSTEM OF WATER-FUEL EMULSIONS

A.N. Kachanov, N.N. Hudokormov

The article presents the results of a study of water-oil cooking quality emulsion in shock-vortex emulsatore. Basis of design is based on the phenomenon emulsatora cavitation for processing and high-quality water-fuel emulsions. Us obtain quality depending on the temperature of the emulsion, the emulsion preparation cycles and rotor speed emulsatora.

Keywords: heavy fuel oil grade, water-fuel emulsions, dispersants cavitation shock-vortex emulsator, dispersion emulsion.

HUMIDITY CONTROL OF WOOD IN VACUUMDRYING CHAMBERS

A.N. Kachanov , D.A. Korenkov

The results of analysis of the known methods for measuring moisture content of wood used in modern drying equipment . The theoretical basis of the method proposed by the authors measure and control the moisture content of wood during its drying electrotechnological complexes using vacuum . The possibility of applying this method when drying in vacuum dielectric chamber.

Keywords : drying the wood humidity measurement drying in vacuo.

APPLICATION OF RISK ANALYSIS AND RISK ASSESSMENT IN THE NETWORKS 10-0,4 KV

N.I. Cherkasova

Examples of the application of known methods of hazard analysis and risk assessment for rural distribution networks 35 - 0,4 kW . Presented model "tree incident" and" event tree - its outcomes " for events : fire at KTP 10/0,4 kV and ignition power transformer substation disconnecting , respectively.

Keywords: rural electric network , risk assessment, method of " what if " checklist method , hazard and operability analysis , "tree incident ", "event tree".

TECHNIQUE OF EXPERIMENTAL RESEARCHES OF ELECTRIC PATHOLOGY OF MILK COWS ON FARMS ELEKTROMEHANICHNYJ

A.F. Kostyukov, N.I. Cherkasova, A.I. Afanasyeva

Opened the mechanisms of electric pathologies of farm animals (cows), reduce the milk output at machine milking. The developed technique of experimental researches of electric pathology and created a special measuring equipment.

Keywords: dairy cows, pathology, criteria electrical safety.

INFRASTRUCTURE AND RESEARCH OBESPCHENIE LEVEL ELECTRIC PLANT DAMAGE MOBILE UNITS ELECTROTECHNOLOGICAL

V.G. Liapin , D.S. Bolotov, M.V. Samohvalov , D.V. Morokin

Soil channel, vegetation - climate chamber electrotechnological mobile installation information and measurement software allow you to measure the characteristics of electrode systems , study of plants under the influence of the reactionary nature of electro-magnetic fields , explore the processes of transfer of electromagnetic energy into plant facilities through a sliding contact in the "air - electrode - vegetation - soil". Formulate research problems.

Keywords: mobile electrotechnological installation, plant, electromagnetic field, the voltage electrode system, the soil channel, vegetation - climate chamber.

BASES AND RISK MANAGEMENT MECHANISMS OF ELECTRICAL FACILITIES AIC

N.I. Cherkasova, A.F. Kostjukov, O.K. Nikolsky

The analysis of normative legal acts regulating the provision of technological safety of electrical installations and buildings. Methodical approaches to the problem of valuation and risk prediction installation.

Keywords: electrical installation, management and risk assessment, regulatory legislative provision.

THE NEED TO DEVELOP A NEW CONTROL METHOD OF THREE-PHASE ASYNCHRONOUS MOTOR WHEN POWERED BY A SINGLE-PHASE NETWORK

T.M. Khalina, A.I. Tishchenko, S.Y. Eremočkin, T.N. Pivkina

In the article the question of developing a new control method of three-phase asynchronous motor when powered by a single-phase network. Provides justification, requirements and operation algorithm of three-phase asynchronous electric motors from a single-phase network by vector-algorithmic control switching equipment without the use of additional rectifier devices.

Key words: three-phase asynchronous motor, vector-algorithmic management, power.

ASSESSMENT METHODOLOGYDAMAGEABILITY OVERHEAD-WIRES IN THE DISTRIBUTION NETWORKS OF 10 KV

I.V. Naumov, Y.M. Ivan'o, A.V. Lanin, A.V. Mishhenko

The article considers the estimate of the number of faults in the electrical wires overhead 10 KV network, which is based on a statistical analysis of the source of numerical series, the selection of the law of probability distribution based on the first autocorrelation coefficient. Spotted an annual cyclical long-term variability of damage to overhead wires, which are defined on the basis of annual trends, describing the distribution of failures by month for the calendar years. On the basis of regression equations obtained interval forecast amount of damage wires overhead 10 KV lines with a period of one year lead time.

Keywords: forecasting, reliability, faults, electrical networks, power transmission lines, wires, trend, service, statistical analysis.

VEGETATION CLIMATE CHAMBER

V.A. Kozhuhov, A.V. Sebin, A.F. Semenov

Developed vegetation climatic chamber for studies of physical and climatic influence of environmental factors on plant organisms. Can be used to improve the efficiency of breeding and simulation modes controlled microclimate in greenhouses.

Keywords: microclimate, drip, splinklernoe irrigation, fertilizing carbon dioxide.

METHODS FOR DETERMINING RESIDUAL LIFE AND FORECASTING TECHNICAL STATE OF ASYNCHRONOUS MOTORS IN AGRICULTURAL PRODUCTION

G.V. Suhankin, O.K. Nikolsky

Long and trouble-free operation of all production chains in agricultural production Venn largely due to operational reliability of induction motors (BP). The article describes some of the ways and classified and models capable of improving the operational reliability of technical objects.

Keywords: asynchronous motor, operational reliability, diagnostic sign, residual life, prediction of the state, neural networks.

ANALYSIS OF ENERGY EFFICIENCY OF INTERMITTENT HEATING BUILDING

A.S. Kutsenko, S.V. Kovalenko, V.I. Tovazhnyansky

The article is a simplified mathematical model of the managed process heat supply of the building. On the basis of the proposed model and the principle of maximum Hp Pontryagin received the best Act management of intermittent heating mode. Based on numerical experiments justified recommendations on the terms of the effective use of intermittent heating.

Key words: intermittent heating, control systems, thermal processes mathematical model building.

MEASURING SYSTEM FOR DETERMINATION OF RESIDUAL LIFE INSULATION OF ELECTRIC MACHINES

G.V. Suhankin, O.K. Nikolsky, N.T. Gertsen, N.P. Vorobev

In this measuring method is used complex diagnosis of the condition of insulation of electrical machines based on the attenuation of the acoustic wave generated by the interaction of the winding conductors. With such a complex can be determined degree of thermal insulation aging at various stages of operation of the motor.

Keywords: meter, electric, acoustic wave, those pilaf aging.

EVALUATION OF ENERGY COMPLEX FOR TOXIC WASTE UTILIZATION

V.N. Delyagin, N.M. Ivanov, V.I. Murko, V.I. Fedyaev, V.P. Mastihina

The variants of an innovative project "Creation of autonomous power module for the animal waste utilization" are reviewed. The aim was to develop a fundamentally new energy efficient and environmentally-friendly technology of highly toxic animal's waste utilization and substandard coal dust by preparing and burning fuel briquettes in automated thermal power complex.

Keywords: recycling of highly toxic waste, composite briquetted fuel, power module.

Подписано в печать 03.11.2014. Формат 60×84 1/8. Печать цифровая.
Усл.п.л. 32,08. Тираж 200 экз. Заказ 2014
Отпечатано в типографии АлтГТУ им. И. И. Ползунова, г. Барнаул, пр-т Ленина, 46