

DEVELOPMENT OF AN EFFICIENT MECHANISM OF SERVICE TO THE ELECTRICITY SUPPLY SYSTEM

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Abstract

This article deals with the principal mechanisms of servicing oil transformers that serve the population. In this, the principles of easy, safe and economical servicing of oil transformers are given.

Keywords: oil transformers, maintenance, suspension and hydraulics.

Introduction

In general, it is the need of the hour to achieve efficient use of electricity through the use of modern techniques and technologies and the development and implementation of other measures.

Therefore, power transformers, although they are very reliable devices that work due to the absence of rotating parts, nevertheless, failures and accidents are not uncommon for them and have a great impact on the reliability of the power system.

Wear and tear (~ 60%) of the main electrical equipment of power plants and solar power plants is associated with current and capital maintenance, as well as the tendency to reduce the financing of its maintenance

The developed method of assessing the technical condition of oil power transformers allows to prevent accidents in distribution substations. The main causes of man-made accidents at distribution points are wear and tear of equipment and non-compliance with safety rules.

The main reason for damage to power transformers during operation is the lack of efficiency of the currently accepted diagnostic system. The main diagnostic methods of power



transformers include chromatographic, thermal imaging, vibration, electrical, radio wave, optical, eddy current, acoustic, partial discharge method, which are mainly aimed at the application of prevention and equipment testing system. In the form. 1 shows the extent of electrical-caused fires in petrochemical and oil refining plants.

One of the other main causes of transformer failure is a sudden change in loads in a particular section of the network. In general, the existing inconveniences and conditions in the conditions of technical operation of power supply equipment require special attention to be paid to the technical operation of electrical equipment. After the current voltage transformers in residential power supply systems have expired, due to wear of some technical parts, moderate weather changes (strong wind, heavy hail or rain), branches of trees touching live parts or trees falling, as a result of touching current-carrying parts and connecting consumers to the transformer in excess of the specified amount and norm, it is observed that they fail and sometimes fall into emergency situations. As a result of these and similar situations, transformer maintenance is performed several dozen times a year at the district level, and at the regional level, it exceeds several 100 times, or in a word, we see that it does not count. Mainly in the winter and autumn seasons, of course.

In order to maintain adequate operational reliability of electrical equipment, it is necessary to carry out preventive and operative technical maintenance and repairs in a timely manner.

Carrying out preventive measures at the same time in different conditions and equipment operating in different seasons, flat planning of TK and R schedule during shift and month or quarter creates a certain complexity and reduces the work efficiency of electricians. It makes it difficult to conduct operational service activities.

Therefore, there are objective conditions that reduce the efficiency of technical operation in the conditions of the region and district. Electricians have to perform various functional tasks, vehicles and spare parts are not enough. The occurrence of these and similar problems creates some difficulties for the maintenance of low-voltage transformers, mainly due to the lack of various vehicles, mainly waiting for the load of the cranes to be shown as necessary.

This puts even higher demands on the qualification and technical equipment of electrical service personnel.

Taking into account the above-mentioned circumstances, safe maintenance of transformers implies the need to protect human health. For this purpose, problems such as the need to use suspended hydraulic units in the servicing of oil transformers in existing power supply systems in the population, enterprises and social enterprises, and thereby facilitating the servicing of transformers, as well as protecting human health, will be solved. how many vehicles are not needed.

References

1. Арипов, Н. Ю. (2021). Важнейшие задачи улучшения экологической среды. *Science and Education*, 2(4), 70-76.
2. Арипов, Н., & Азимхонов, Н. (2022). Гидравлика—это часть повседневной жизни. *Евразийский журнал академических исследований*, 2(5), 668-672.



3. Арипов, Н. Ю., Кўйчиев, У. И., & Тошпулатов, Д. У. Ў. (2022). Маиший чиқиндиларни транспортировка қилиш орқали экологик мухитни барқарорлаштириш. *Science and Education*, 3(4), 528-533.
4. Арипов, Н. Ю., Хаққулов, Б. А., & уғли Турдиев, А. А. (2022). Дизель двигатели қувватини тиклаш бўйича конструктив тадбирлар. *Science and Education*, 3(3), 296-303.
5. Yusupovich, A. N., Isamidinovich, K. U., & oqli Toshpulatov, D. U. (2022). Developing an Effective Mechanism of Service. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 2(5), 235-239.
6. Арипов, Н. Ю., Хаққулов, Б. А., Холбутаев, Ж. Х., & қизи Саидова, С. С. (2021). Замонавий уйларда канализацион тизимни барқарор ишлашини таъминлаш-замон талабидир. *Science and Education*, 2(12), 310-317.
7. Арипов, Н. Ю., Куйчиев, У. И., Шомуродов, Х. Р., & Кокилов, Х. Х. У. (2022). Чиқиндиларни махсус конвеерларда ортиш, уларни қайта ишлаш бу иқтисодий самарадорликни ошириш билан бирга экологик мухитни барқарорлаштирига эришишнинг ягона усулидир. *Science and Education*, 3(5), 641-648.
8. Yusupovich, A. N. (2022). THE MAIN OBJECTIVE IN ENERGY SUPPLY IS TO ENSURE UNINTERRUPTED AND LONG-TERM OPERATION OF TRANSFORMERS. *Open Access Repository*, 9(12), 178-182.
9. Арипов, Н. Ю., & Холбутаев, Ж. Х. (2021). ГИДРАВЛИК АГРЕГАТНИ ЎРНАТИШ ОРҚАЛИ ИҚТИСОДИЙ САМАРАДОРЛИККА ЭРИШИШ. *ME' MORCHILIK va QURILISH MUAMMOLARI*, 117.
10. Арипов, Н. Ю., & Холбутаев, Ж. Х. (2021). Иқтисодий самарадорликка эришиш-замон талабидир. *Science and Education*, 2(11), 392-399.
11. Арипов, Н. Ю. (2021). Хизмат кўрсатишни такомиллаштириш орқали иқтисодий самарадорликка эришиш. *Science and Education*, 2(10), 707-713.
12. Арипов, Н. Ю. (2020). Совершенствование технологии обслуживания низконапряжённых трансформаторов и дорожных знаков путем установки гидросистем на минитрактор. In *Теория и практика современной науки* (pp. 27-29).
13. Арипов, Н. Ю. (2020). Транспортировка бытовых отходов с применением гидравлических систем. *Science and Education*, 1(6), 65-73.
14. Арипов, Н. Ю. (2020). Транспортировка бытовых отходов. In *Арктика: современные подходы к производственной и экологической безопасности в нефтегазовом секторе* (pp. 29-32).
15. АРИПОВ, Н., & ПИРНАЗАРОВ, И. (2020). МИКРОКЛИМАТ И ВЕНТИЛЯЦИИ ПРОМЫШЛЕННЫХ ПРЕДПРИЯТИЙ. *Электронный сетевой политематический журнал "Научные труды КубГТУ"*, (8), 443-451.
16. АРИПОВ, Н., & ПИРНАЗАРОВ, И. (2020). Условия приема производственных сточных вод в коммунальную канализационную сеть городов и других населенных пунктов. *Электронный сетевой политематический журнал "Научные труды КубГТУ"*, (8), 438-443.
17. Yusupovich, A. N. (2021). Environmental Sustainability is a Time Requirement. *International Journal of Innovative Analyses and Emerging Technology*, 1(5), 142-144.

