PROVIDING NORMAL WORKING CONDITIONS FOR EMPLOYEES IN SERVICE ENTERPRISES

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Abstract. This article analyzes the cases of ensuring the operation of technical means that ensure human life and safety and serve to create normal working conditions. Studies were conducted on the electricity supply of lighting, ventilation, heating and cooling systems of buildings and rooms. The method of connection of the station to the external power grid, its necessary electricity capacity, and the technical condition and load of the utility network have been resolved.

Keywords: technical support; selection of technological equipment; equipment standards; methods of determining requirements; rules of safe operation; prohibited conditions; types of services; equipment requirements; repair works; rules of operation; technical inspections; steam boilers; economizer.

Аннотация. В данной статье анализируются случаи обеспечения эксплуатации технических средств, обеспечивающих жизнь и безопасность человека и служащих для создания нормальных условий труда. Проведены исследования по электроснабжению систем освещения, вентиляции, отопления и охлаждения зданий и помещений. Решены способ подключения станции к внешней электросети, ее необходимая электрическая мощность, техническое состояние и загрузка инженерной сети.

Ключевые слова: техническая поддержка; подбор технологического оборудования; стандарты оборудования; методы определения требований; правила безопасной эксплуатации; запрещенные условия; виды услуг; требования к оборудованию; ремонтные работы.

Electricity supply. Car service enterprises belong to the third category of electricity consumers (that is, interruptions in energy transmission to them can last up to a day).

Electricity is used for the following purposes:

• moving technological equipment, electric motors;

• power supply of heating devices (vulcanization device, car painting, drying chambers, etc.), electrowelding devices and lighting system accessories;

• ensuring the operation of technical means (electric fans, air conditioners, computers, etc.) that ensure human life and safety and create normal working conditions [1-3].

127, 220, 380 volt alternating current and 6, 12, 24, 36 volt direct current are used in the electric power system. Low-voltage direct currents (mainly 12, 24 V) are used to charge batteries, to illuminate the pits of service stations and repair stations [8]. The power of connection to the external power grid is aggregated through the following coefficients, which take into account the specified capacities of consumers in the enterprise and the probability of their simultaneous connection:

Interior and exterior lighting fixtures ev=0,9÷1,0

Sanitary and water management equipment eg=0,6÷0,7

Technological equipment et=0,3÷0,4

136 [4-6]

Low values of the coefficients are accepted for small power stations, and high values are accepted for large and medium power stations. Required connection power

N = 0,8 (evN1 + egN2 + etN3), kvt .

here:

N1 – specified capacity of internal and external lighting lamps, kW;

N2 – power used for sanitation and water management equipment, kW;

N3 – power consumed by technological equipment, kW.

The average connection power can be assumed to be the following amounts for stations of different sizes:

For the smallest stations (with 2-4 posts).....30 - 40 kvt

For small stations.....60 – 80 kw

For medium stations.....100 – 150 kw

For large stations.....150 – 250 kw

The method of connecting the station to the external power grid depends on its required power and the technical condition and load of the utility network. If the substation is located outside the city and the required connection power does not exceed 50 kW, then it can be connected directly to the municipal utility network of low voltage (380 V) [7-9].

The installation of the internal electrical equipment of the station and the pulling of electrical conductors to them are required to be carried out on the basis of special

documents "Rules for installing electrical equipment" and "Rules for technical operation of electrical equipment" [10-13].

First of all, workshops and other auxiliary rooms in production buildings should be illuminated and supplied with electricity based on the description of the work to be performed .

Car maintenance, diagnostic and repair sections are illuminated using aesthetic gas lamps installed on the ceiling of the building. Since the viewing channels are located below the floor of the room, the electricity supply to their lighting system is carried out together with the ventilation system separate from the general lighting system . Electrical energy is supplied to the technological equipment through plug sockets installed on the walls, supplied by the main connector [14-15].

Heat supply. When designing the heating of the enterprise's facilities, the calculated parameters of the air in the rooms are accepted in the amounts in table.

In order to maintain a warm temperature in all rooms during non-working hours, a duty heater should be provided. It is necessary to automate the transition of the heating system to on-duty heating during non-working hours as much as possible.

An air heater compatible with ventilation should be used in the maintenance and storage rooms for vehicles. This system is implemented using centralized or decentralized placement of air heating equipment 137.

In the centralized steam-air heating method, the air is heated in the central chamber and distributed to the rooms by means of a centrifugal fan and a metal air handler and ducts under the floor. Decentralized heating uses a heater, fan and electric motor installed in a single block.

Air transfer units should be placed on columns or walls.

A low-pressure or high-pressure (local heating devices) steam heating system is used for heating repair-preparation and warehouses.

Foydalanilgan adabiyotlar:

1. Hamroqulov O., Magdiev SH. Avtomobillarni texnik ekspluatatsiyasi. T.: Toshkent, 2005
2. Fayzullaev E. Transport vositalarini to’zilishi va nazariyasi T.: Yangi asr avlodi, 2006
3. Javlonbek Kholmirzaev, Isroiljon Kuchkorov, Adhamjon Kakhkharov PROBLEMS OF CARRYING OUT AUTO TECHNICAL RESEARCH WITH THE PARTICIPATION OF TWO-WHEELED MECHANICAL VEHICLES // Central Asian Academic Journal of Scientific Research. 2022. №5. URL:

https://cyberleninka.ru/article/n/problems-of-carrying-out-auto-technicalresearch-with-the-participation-of-two-wheeled-mechanical-vehicles (дата обращения: 01.11.2022).

4. Javlonbek Kholmirzaev, Isroiljon Kuchkorov, Adhamjon Kakhkharov DETERMINING THE NEED FOR SPARE PARTS FOR SPECIAL VEHICLES OPERATING AT AIRPORTS // Central Asian Academic Journal of Scientific Research. 2022. №5. URL: https://cyberleninka.ru/article/n/determining-the-need-for-spare-parts-for-specialvehicles-operating-at-airports (дата обращения: 01.11.2022).
5. Javlonbek Kholmirzaev, Isroiljon Kuchkorov, Adhamjon Kakhkharov COMPLETE ASSESSMENT OF THE QUALITY OF THE DELIVERY OF SPARE PARTS FOR THE TECHNICAL SERVICE OF THE VEHICLE FLEET // Central Asian Academic Journal of Scientific Research. 2022. №5. URL: https://cyberleninka.ru/article/n/complete-assessment-of-the-quality-ofthe-delivery-of-spare-parts-for-the-technical-service-of-the-vehicle-fleet (дата обращения: 01.11.2022).
6. Tavakkal o‘g‘li, K. I. (2023). CHARACTERISTICS OF THE MATERIAL USED IN THE TENSILE AND COMPRESSIVE STRENGTH OF LIGHT VEHICLE DISC MATERIALS. O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(20), 294-296.
7. Kuchkorov, I. (2022). ANALYSIS OF AVAILABLE PARKING SPACES IN FOREIGN COUNTRIES OF TRANSIT ROADS FOR CARGO TRANSPORTATION BY INTERNATIONAL VEHICLES. Oriental renaissance: Innovative, educational, natural and social sciences, 2(10), 537-542.
8. Sherali Anvarjonovich, [24.04.2024 13:50] Anvarjonovich T. S. AVTOTRANSPORT KORXONALARIDA MAVJUD YORDAMCHI USTAXONALAR FAOLIYATINI TASHKIL QILISH VA TAKOMILLASHTIRISH //World scientific research journal. – 2023. – Т. 18. – №. 1. – С. 136-141.
9. Sherali Anvarjonovich, [24.04.2024 13:51] Sherali T. ZANJIRLI UZATMALAR //Новости образования: исследование в XXI веке. – 2023. – Т. 2. – №. 14. – С. 117-131.
10. Sherali Anvarjonovich, [24.04.2024 13:51] Темиров Ш. А. Проблемы и коммерциализация инноваций в России на современном этапе развития //Матрица научного познания. – 2019. – №. 6. – С. 184-192.

11. Islomjon o'g JV et al. CONVENIENCES CREATED TO PASSENGERS WHEN USING PUBLIC TRANSPORT SERVICES //Education news: research in the 21st century. – 2023. – T. 2. – No. 14. – pp. 138-146.
12. Islomjon o'g QK va boshqalar. AVTOBUS PARKINI ISHLATISHDA MODDIY RESURSLAR SARFINI STAVKALASH METODIKASI //Mexatronika va robototexnika: muammolar va rivojlanish istiqbollari. – 2023. – T. 1. – Yo‘q. 1. – 266-267-betlar.
13. Kholmatov U. S. et al. Characteristics of optoelectronic discrete displacement converters with hollow and fiber light guides //E3S Web of Conferences. – EDP Sciences, 2024. – T. 471. – C. 06015.
14. Melikuziev A. et al. IMPROVING THE PERFORMANCE OF THE FUEL INJECTION SYSTEM //Development and innovations in science. – 2022. – T. 1. – №. 14. – C. 10-14.
15. Xalilbek o‘g‘li X. E. KORRUPSIYA-O ‘ZBEK MILLATINING KUSHANDASI //Journal of new century innovations. – 2024. – T. 52. – №. 1. – C. 130-134.