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## **THE REQUIREMENTS FOR FACILITIES, EQUIPMENT AND TECHNICAL FACILITIES IN OIL WELLS**

***Аннотация:** данная статья включает в себя измерительные приборы автоматизации в бурении нефтяных и газовых скважин. Измерительные приборы играют важную роль в бурении, а также в безопасности нефтяников.*

***Ключевые слова:** автоматизация, контроль, эксперименты, измерения, характеристики.*

***Abstract:** this article includes measuring instruments of automation in drilling oil and gas wells. Measuring instruments play an important role in drilling, and in the safety of oil workers.*

***Keywords:** automation control, experiments, measurements, characteristics.*

We all know that oil wells used equipment, facilities and equipment. This equipment is their demands. Below we describe these requirements. For equipment to conduct geophysical works in oil wells must meet the following requirements:

A. Geophysical operations in oil and gas wells must be carried out with the use of equipment, cables and equipment specifications which correspond to the geological and technical conditions in wells drilled and exploited.

B. Well logging truck hoists must be equipped with:

- suspension and guide blocks, resistant shoes and a device for cutting the cable;
- by means of visual control of the depth of tripping cable speed and tension of his promotion;
- connecting cable with solid insulating coating;
- automatic cable layer.

C. For carrying out geophysical borehole pressure supplied ground equipment should include lubricator device tested for pressure expected at the wellhead.

D. The geophysical surveys allowed certified equipment, cables and machinery.

E. Experienced and experimental samples of geophysical techniques are permitted for use only with the permission of the organization, which is run by the well, and in consultation with the territorial authorities State Technical Supervision Uzbekistan.

F. Construction of instrument heads must ensure adherence to the standardized instrument cable lugs and assembly layouts, integrated or combined multi-parameter hardware. Cable lug should be so designed as to his capture fishing tool. Fishing Tools used for all types of heads and cable must be included geophysical equipment.

G. The strength of attachment of the device to the cable with a cable lug must bellower than the breaking strength of the appropriate type of cable. h) When the geophysical works should use a cable with no violations armour coating. Preservation of the reservation must be checked periodically, and after work in aggressive environments must be tested in the cable breaking strength. To lower the unit into the well using a cable of the brand CG  $3 \times 0,75-60-150$ .

Cable characteristics are shown in Table 1.

Table 1

<i>The design and characteristics of the cable</i>	<i>Options</i>
The centre conductor	Strands of tinned copper wires
Rated conductor cross-section mm <sup>2</sup>	0,75
Number of cores	3
The external diameter of the shell, mm	10,2
Design weight, kg / km	399
Breaking load of cable, kN, not less	60
The electrical resistance of living for 1 km length, Ohm, not more	25
Maximum operating temperature, ° C	150

Safety during the operation of the downhill tool

As developed channel is part of an integrated geophysical instruments, the safeguards for the channel is the same as that of the apparatus

A. Operating equipment, as well as work carried out in the calibration and verification shall be done in accordance with operating instructions in compliance with the «Rules of safety in the petroleum industry», approved by the State Technical Supervision 01/31/74. And «Safety regulations for the operation of electrical consumers," approved by the State Technical Supervision 04/12/69.

B. To work with the equipment should be allowed persons who have passed the exam on safety and check the instruction manual.

C. Safety in the calibration and verification dosimeter equipment must comply with radiation safety standards (NRB-76).

D. Persons employed regularly or temporarily required to work with sources of ionizing radiation (category «A») should be guided by the existing sanitary rules work with radioactive substances and other sources of ionizing radiation (SIR-72.80), and to be admitted to working with sources of ionizing radiation.

E. Transportable equipment under normal conditions, has no elements pusher and explosion, has no harmful effects on humans and the environment.

F. To avoid electric shock when using the unit logging cable armour must be grounded.

G. Before connecting the borehole equipment to the cable, check the insulation resistance between the cable and ferrule. The insulation resistance must be at least 30  
Terms of use, storage and transport

To maintain the equipment and keep it in working order is necessary to observe the rules of operation, storage and transportation:

– packed units can be transported by any mode of transport at any distance at temperatures below minus 50°C

C. S the absence in the environment of vapors of acids, alkalis, and other corrosive compounds °C, relative humidity of 80% at 20°C 40°;

– packed modules should be stored in closed, dry ventilated area at a temperature of up to 1;

– when operating the units should be stored in a part of the apparatus of the geophysical station or in a room at a special counter in the conditions;

- transport and storage modules should not be subjected to impact;
- connecting nodes modules must be kept clean and protected against mechanical impacts;
- Orin's and screw connections at the module assembly should be cleaned from mechanical particles and coated with a thin layer of;
- at the end of the well should be washed with petrol units with oil or diesel fuel, the outer surface wipe dry.

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