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Olexiy Gubarev¹, Yuliya Sobol²

¹student of group E-410a, National University «Zaporizhzhia Polytechnic»

²PhD (Philology), assistant prof. National University «Zaporizhzhia Polytechnic»

CONDUCTOR INSULATION AND CHARGE LOSSES

The fact that the insulating layer of a cable, which has been in use for a long time, is aging over time is obvious. As a result, some of the wiring is exposed, In the course of time it may become very dangerous. When bared alive wires come into

contact, a short circuit and arcing occurs. These consequences are a result of a number of factors that affect the insulation of the conductor from the outside.

Studies by the Russian company Alliance Cable have shown that the wear of the insulation is significantly increased due to the temperature difference. For reliable data, the rule of “eight degrees or the Montziger rule” is used, which states: an increase in temperature for every eight degrees Celsius is above the maximum permissible and reduces the life of the insulation by half. Types of insulation aging depend on their classifications: A - solid dielectric, B - organic dielectrics, C - some types of inert gases, etc.

At the moment, the life time of the electrical network insulation does not correlate to the quality, since GOST checks of insulation are not always carried out.

The development of neutral methods for insulating various conductors is so far only advancing on documents and experimental work.