ductors, or between one conductor and earth, may at any time exceed 650 volts, but cannot exceed 3,000 volts, the supply shall be deemed a high-pressure supply;

Where the conditions of supply are such that the pressure at the terminals where the electricity is used, between any two conductors, or between one conductor and earth, may at any time exceed 3,000 volts, the supply shall be deemed an extra high-pressure supply.

General.

303. All electrical apparatus and conductors shall be sufficient in size and power for the work they may be called upon to do, and, so far as is reasonably practicable, efficiently covered or safeguarded, and so installed, worked, and maintained as to reduce the danger through accidental shock or fire to the minimum, and shall be of such construction and so worked that the rise in temperature caused by ordinary working will not injure the insulating material.

All metallic coverings, armouring of cables other than trailing cables, and the frames and bedplates of generators, transformers, and motors other than portable motors shall, as far as is reasonably practicable, be efficiently earthed where the pressure at the terminals where the electricity is used exceeds the limits of low pressure.

304. Where a medium-pressure supply is used for power purposes, or for arc lamps in series, the wires or conductors forming the connections to the motors, transformers, arc lamps, or otherwise in connection with the supply, shall be, as far as is reasonably practicable, completely enclosed in strong armouring or metal casing efficiently connected with earth, or they shall be fixed at such a distance apart or in such a manner that danger from fire or shock may be reduced to the minimum. This regulation shall not apply to trailing cables, except when used for incandescent lamps other than those mounted on the motor.

305. Motors of rock-drills and such other portable machines shall not be used at a pressure higher than medium pressure.

306. No higher pressure than a medium-pressure supply shall be used underground other than for transmission or for motors, and shall then only be applied to transformers and motors in which the whole of the high-pressure circuit is stationary; and the high-pressure wires or conductors, other than overhead lines above ground, forming the connections to the transformers, or otherwise in connection with the supply, shall be completely enclosed in a strong armouring or metal casing efficiently connected with earth, or they shall be fixed at such a distance apart or in such a manner that danger from fire or shock shall be reduced to the minimum.

The machines, apparatus, and lines shall be so marked as to clearly indicate that they are high-pressure, either by the use of the word "Danger" at frequent intervals, or by red paint properly renewed when necessary.

307. The insulation of every complete circuit, other than telephone or signal wires, used for the supply of energy, including all machinery, apparatus, and devices forming part of or in connection with such circuit, shall be so maintained that the leakage-current shall, so far as is reasonably practicable, not exceed $\frac{1}{1000}$ of the maximum supply-current, and in the event of the leakage-current exceeding this maximum suitable steps shall be taken at once to localize it.

308. In every complete insulated circuit, earth or fault detectors shall be kept connected up in every generating and transforming station to show immediately any defect in the insulation of the system. These instruments shall be inspected daily by a competent person.

309. Main and distribution switch and fuse boards must be made of incombustible insulating-material, such as marble or slate free from metallic veins, and to be fixed in as dry a situation as practicable.

310. Every circuit must be protected by a fuse on each pole, except in the case of the earthed neutral wire of a three-wire system, in which case the fuses may be on the outers only. Every circuit carrying more than 5 amperes up to 125 volts, or 3 amperes at any pressure above 125 volts, must be protected in one of the following alternative methods:—

(*a.*) By an automatic maximum cut-out on each pole.

(*b.*) By a detachable fuse on each pole, constructed in such manner that it can be removed from a live circuit with the minimum risk of shock.

(*c.*) By a switch and fuse on each pole.

311. Fire-buckets, filled with clean, dry sand, shall be kept in electrical machine rooms ready for immediate use in extinguishing fires.

Except as hereinafter provided, no repair or cleaning of the live parts of any electrical apparatus, except mere wiping or oiling, shall be done when the current is on.

No departure from this regulation shall be allowed except when a stoppage of the current is, in the opinion of the manager, liable to involve danger. Such repairs shall be carried out subject to the manager's approval, and such special instruments as he may issue.

Gloves, mats, or shoes of indiarubber or other non-conducting material shall be supplied and used where the live parts of switches or machines working at a pressure exceeding the limits of low pressure have to be handled for the purpose of adjustment.

312. A competent person shall be on duty at the mine when the electrical apparatus or machinery is in use; and at such times as the amount of electricity delivered down the mine exceeds 200-horse power, a competent person shall be on duty at the mine above ground, and another below ground. Every person appointed to work any electric apparatus shall have been instructed in his duty, and be competent for the work that he is set to do.

313. No person other than an authorised person shall enter a machine or motor room; and no person shall wilfully damage, interfere with, or, without proper authority, remove or render useless any electric line, or any machine, apparatus, or part thereof, used in connection with the supply or use of electricity.