ТЕКСТЫ СООБЩЕНИЙ,

ПОДГОТОВЛЕННЫХ СТУДЕНТАМИ ПО ТЕМЕ ЗАНЯТИЯ

Potential hazards at work

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Electricity is a source of power. Electricians, electronic technicians, power line workers work with electricity directly. Working with or around electricity exposes workers to lots of hazards. We are going to remind you about some of them.

The first – **common** hazards. They are…..

>Lead, solvents, solder and other materials

>Risk of pain and injuries from awkward positions

>UV radiation

>Risk of infection from bird or rodent (грызуны) dropping

>Risk of eye injury from flying particles

>Slips (скольжение), trips (запнуться) and falls

>Working in cold or wet rooms

>Extreme temperatures

The second group – **electrical** hazards. They include….

> Wrong work of electrical equipment

>Contact with electrical circuits

>Spilling water or chemicals on

electrical devices

>Inadequate insulation on the wires

>Using electric cords, >Overloading, >Loss of electric power, >Electrical arc

And we can’t forget about **stresses** that people get when they have to work in shifts, have extended work hours or work in confined spaces

The most dangerous and sometimes fatal are electrical hazards. Risk of getting electric shock, electrical burns, or even electrocution, injuring from electrical arc and blasts are the main specific occupational hazards for electricians at work.

First aid rules

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Shock victims must be removed immediately from the source of electricity. To protect yourself from shock, turn off the power before touching the victim, wire or equipment. If you can’t turn the power off, use a nonconducting tool, such as a rope or a wooden stick, to move the person, then call for help. Make sure you don’t complete a circuit between two wires or between one wire and the ground.

Before giving any other treatment, check the victim’s breathing and pulse. If breathing has stopped, give artificial respiration. If you don’t detect a heartbeat, CPR (cardiopulmonary resuscitation) must be started immediately. After four or six minutes oxygen respiration will cause brain damage. Continue CPR until medical help arrives or until the victim begins to breathe on his own.

Protective equipment

Pashkanov Dmitry

There are various ways of protecting people from the hazards caused by electricity, including insulation, guarding, grounding and electrical protective devices.

1. Speaking about **insulation**, don’t forget! All electrical cords should have sufficient insulation to prevent direct contact with wires. Remember that corrosive chemicals or solvent vapors erode the insulation

2. Keep in mind that live parts of electric equipment operating at 50 volts and more must be **guarded** against accidental contact. Plexiglas shields may be used to protect against exposed live parts.

3. As for the **grounding**— only equipment with three-prong plugs should be used. The third prong provides a path to ground that helps prevent the buildup of voltages. So the risk of getting electric shock is reduced.

4. And finally, **circuit protection devices** are designed to limit or shut off the flow of electricity in case of overload, ground-fault or short circuit. Fuses, circuit breakers, GFCI (ground fault circuit interrupters) are well-known examples of such devices. Fuses and circuit-breakers prevent overheating of wires and components. The ground-fault circuit interrupter is designed to shutoff electric power if a ground fault is detected. Use logouts and tag outs to protect other workers from reaching faulty equipment.

Safe work practices

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So, workers can reduce electrical hazards by following some basic precautions:

> Don’t contact with energized electrical circuits

> Disconnect power source before repairing electrical equipment.

>Inspect wiring of equipment before each use. Replace damaged electrical cords immediately.

> If water or chemicals spilled onto equipment shut off power at the main switch or circuit breaker. Unplug the equipment.

>Use only multi-plug adapters equipped with circuit breakers or fuses.

>Know the location and how to operate shut-off switches and circuit breaker panels.

>Place exposed electrical conductors behind Plexiglas shields.

> If it is not unsafe to do so, work only with

one hand. Keep the other hand at your side.

Remember! Any broken switch at reachable height should not be neglected. Who knows whose life it will take?