

Standard 4.3 Other hot works

1. General information

Other hot works - this category of fire-hazardous works refers to single works or activities that may cause a fire hazard and include:

- a) work with sparking tools (grinders, saws, cutters)
- b) surface works with the use of heaters, soldering irons, heat guns

The remaining scope of fire-hazardous work (welding and work with open fire) has been adequately described in standards 4.1 and 4.2.

2. General rules for the performance of works

1. In many cases, other hot work is carried out in the course of work at height, on roofs and ceiling edges, installation and assembly works, etc., which entails an additional requirement to comply with the standards that define the relevant requirements for these works.
2. Personal protective equipment that employees should have - in addition to the standard ones, should also focus on respiratory protection and eyesight (glasses, transparent faceshield), and if necessary - to protect other areas of the body.
3. In the case of performing any fire-hazardous work at the work contractor's workplace, handheld extinguishing agents should be provided:
 - a) dry powder extinguisher with the mass of the extinguishing agent at least **4 kg** designed to extinguish fires of ABC groups (number adequate to the positions),
 - b) a fire blanket.
4. The fire-extinguishing equipment should be fully functional, and each time before starting work, it should be checked for possible damage, expiry date of the extinguishing agent and the quantity; Damaged or empty fire extinguishers are replaced with new ones.
5. Performing any fire-hazardous work without having the efficient ones and complete handheld extinguishing agents and adequate PPE is not acceptable.
6. Performing other hot work in indoor areas (production, office, etc.) requires an appropriate permit, while performing such work in areas where there is a suspicion of an explosive atmosphere is strictly forbidden.
7. Performing work in areas where an explosive atmosphere may appear should be agreed with the company fire brigade and the OHS department.
8. In situations where, due to technological solutions, it is not possible to use alternative methods of work - other hot work is allowed - only on the basis of a previously developed and the Instructions for Safe Performance of Works (IBWR) approved by the Health and Safety Department of LG.
9. Works of this type carries a particular risk of fire, and therefore it is required to ensure constant supervision over employees when they perform their work.

Remember!

When performing hot work is required from all involved employees having appropriate personal protective equipment:

- a) protective helmet,
- b) appropriate footwear and workwear,
- c) non-flammable warning vest (remove flammable),
- d) respiratory protection,
- e) protective gloves,
- f) depending on the type of work- other adequate PPE (f.e glasses or faceshield).



Handheld extinguishing agents that the contractor should have should be in a proper technical condition. It is forbidden to use plant equipment for purposes other than intended - for the needs of external companies

Conducting any fire-hazardous work requires informing the LG's Fire Brigade about this fact and following the recommendations of its representatives. Performing this type of work without the appropriate permit is not allowed.

All employees involved in the performance of works should be familiarized with the Instructions for Safe Work Performance (IBWR) - which they confirm with their signature.

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10. The area where other hot works are performed should be properly fenced off, if necessary - an observer should be appointed who will be responsible for preventing third parties from entering the area.
11. In the event of situations related to the ignition of the cut or heated material or other object (eg employee's clothing), an effective extinguishing action should be undertaken as soon as possible with the use of portable extinguishing agents. It is obligatory to notify the LG's Fire Brigade, LG's Ambulance Service (if necessary) and the EH&S Department of LG about this fact.
12. The place where the fire started should not be left unattended until the arrival of appropriate services. It is then not possible to continue work.

3. Work with the use of sparking tools

1. This type of work involves cutting and / or grinding concrete, stone, metal or other materials that generate sparks, fragments of the processed material and fragments of the cutting disc (grinding wheel, saw, wire brush, sandpaper, etc.).
2. To perform cutting or grinding, tools intended for this purpose, remaining in a proper technical condition and with the use of cutting discs (grinding wheels) or other materials intended for a given type of cut / ground material and device, are used.
3. In addition to effective fire protection of workplaces, the contractor is obliged to properly protect employees against sparks and dust and other by-products from the cutting / grinding process. Then it is required:
 - a. **Provide appropriate personal protective equipment:**
 - **double eye protection** - protective eyeglasses + **face shield** – EN 166 ①
 - **respiratory protection** - masks with a protection class of at least FFP3 – EN 149 ②
 - **flame-retardant workwear** that meets the requirements of the standard EN 11611 ③
 - **work gloves** that meet the requirements of the standards EN 388 & 407 ④
 - **use of hearing protectors** that meet the requirements of the standard EN 352-1 ⑤
 - **use of work shoes of at least s3 class** - in accordance with the standard EN 20345 ⑥
 - b. **Appropriate organization of the workplace:**
 - **use of work tables** for cutting and grinding with appropriate handles, clamps, vices to ensure a safe and ergonomic working position
 - **protect the employee and the workstation's surroundings** against dust generated during work by using local dust extractors using dedicated devices (e.g. construction vacuum cleaners)
 - **protect third parties** and property in the vicinity of the workplace by effectively fencing the work area (against sparks, dust, grinding wheel fragments, etc.)



REMEMBER!

Operation of any electric tools and devices used in other hot works is connected with the necessity to comply with the requirements of standard 4.3 concerning electric power devices and installations.

Welding work also requires the use of cutting tools (e.g. angle grinders). Standard 3.1 refers to this work

The fencing of the work area should be made, if possible, of permanent barriers providing protection against sparking outside the work area. Sheet metal screens or universal barriers covered with a non-flammable fabric (e.g. a fire blanket) should be used. The substrate on which the work is carried out and the elements of the company's property should also be properly protected against damage.

Workstations located in the outdoor area should be adequately protected against the effects of adverse weather conditions (rainfall, wind, temperature changes).

It is forbidden to cover workplaces with flammable materials, e.g. foil, tarpaulin or cardboard boxes against sparking. The workplace should be free from flammable substances and other hazardous substances.

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4. Surface works

Surface works are all activities related to the installation of plastic floor coverings (PVC) on concrete or other floors. These activities are accompanied by gluing, welding and welding the carpets with the use of welding machines ①, heat guns and electric heaters ② designed for this purpose.



THE USE OF GAS WELDING MACHINES FOR SURFACE WORK IS PROHIBITED!

1. Carrying out surface works with the above-mentioned devices not in accordance with their operating instructions may lead to a fire hazard, therefore the contractor is obliged to train his employees in this regard and assign people with appropriate knowledge and skills to work.
2. With regard to the provision of appropriate personal protective equipment for employees, the contractor is obliged to comply with the provisions of **this standard** and comply with **other company standards** depending on the different scope of work, also taking into account the **instructions of the manufacturers** of the equipment used.
3. With regard to ensuring adequate fire protection for the duration of the surface works, the contractor shall be bound by the provisions contained in it in **point 2.** of this standard and general fire protection regulations.
4. With regard to ensuring adequate protection against electric shock and the operation of electrically powered tools during surface works, the contractor is bound by the provisions of **Standard 4.3 Electric power equipment and installations.**
5. **WHEN PERFORMING SURFACE WORKS, IT IS FORBIDDEN:**
 - a. leaving the welding devices connected to the power supply and unattended (heat guns, welders, heaters)
 - b. leaving devices in places exposed to the ignition of fire, the welding elements of which (still heated) may lead to a fire
 - c. carrying out surface works without appropriate fire and shock protection
 - d. performing works in areas with a risk of explosion or the possibility of an explosive atmosphere, and without the appropriate permission from the LG EH&S Department.

Remember!

Carrying out surface works is possible only after obtaining a permit to perform the works.



In addition to handheld firefighting equipment and personal protective equipment, a first aid kit is an obligatory piece of equipment for employees at the workplace. The composition of the equipment of such a first-aid kit is determined by the contractor's occupational medicine doctor. During any fire-hazardous work, the first-aid kit should be additionally equipped with dressings for the treatment and treatment of burns.

Standard personal protective equipment and, if necessary, other protective measures, specified in the operating instructions of the device manufacturer, must be used during surface works.

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5. Good & bad practices during the work



It is forbidden to use flammable materials in places where work with sparking electric tools is performed (angle grinders, etc.). Non-flammable materials should be used to protect the substrate and the protection of the workplace in order to reduce the impact of sparking, e.g. a hanging fire blanket, sheet or plexiglass of appropriate thickness.



Failure to adjust the intended use of the device (especially power, diameter of the cutting disc) to the dimensions of the element being cut may result in an accident as a result of the cutting disc tearing apart and causing injuries to the operator of the device.



A properly prepared cutting / grinding workstation - covered with a flame-retardant fabric, the surface protected with plexiglass, hand-held extinguishing agents at the workplace.

If grinding, cutting or other works with the use of power tools will be a long process, the workstation should be equipped with a workbench with appropriate handles. The stands exposed to weather conditions (rain, wind, etc.) should be shielded and properly secured.

**FOR THE TECHNICAL CONDITION OF USED ELECTRICAL EQUIPMENT
THEIR USER - THE WORKS CONTRACTOR IS RESPONSIBLE AT WORK. HE IS OBLIGED TO
PERFORM PERIODIC INSPECTIONS OF THESE DEVICES IN THE CONDITIONS OF THE GENERAL
REGULATIONS IN THE FIELD OF HEALTH AND SAFETY.**

Remember!



CHOOSE THE RIGHT CUTTING DISC

The maximum speed (rpm) of the cutting disc must always be greater than the maximum speed of the tool.



DO NOT REMOVE
COVER (GUARD) !

It is **FORBIDDEN** to work with the cutting disc guard (cover) removed as it usually leads to serious accidents or even death.



Do not use worn cutting discs from larger power tools.



The use of an additional grip on angle grinders is obligatory when this minimizes the effect of the recovery force during start-up and operation.