



Health and safety instructions for external companies

Coordination of business activities on prevention of occupational hazards





UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

Edifici VX
Plaça Eusebi Güell, 6
08034 Barcelona
Telephone: (+34) 93 4017450
servei.prevencio@upc.edu

<http://www.upc.edu/prevencio>

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1. INTRODUCTION

In its occupational health and safety policy approved by the Governing Council in 2009, the **Universitat Politècnica de Catalunya · BarcelonaTech (UPC)** includes a commitment to “oblige suppliers, concessions and services to comply with the regulations on occupational health and safety”.

In compliance with Article 24 of the Law on prevention of occupational risks and RD 171/2004 on the coordination of business activities in relation to occupation risk prevention, the UPC has established the following instructions. When companies plan the work they will undertake at the UPC, they must take these instructions into account to determine which health and safety actions should be adopted.

Before the start of contracted work, the company and the UPC must establish means of coordination to prevent occupational risks. The main means must be the exchange of information and communications.

Before the start of the activities, companies must inform all staff who will work at the UPC about these health and safety instructions, so that they can be followed by all external workers who undertake activities at UPC centres.

In the context of coordination, external companies must inform the UPC immediately of any incident relating to the prevention of occupational risks and accidents and occupational diseases in particular.

The aim of these instructions is to contribute to ensuring the health and safety of all employees who carry out activities at the University. For this reason, the UPC should be informed of any doubts regarding the application of these instructions.

The main channel of communication and coordination between external companies and the University will be the UPC unit that is managing the hiring process for the activity, supported by the UPC Occupational Health and Safety Service, which will provide technical advice.

2. COORDINATION OF ACTIVITIES

2.1. Documents for coordinating occupational health and safety activities

The main means of coordination that will be adopted is the exchange of information relating to the occupational health and safety. For this reason, before the start of activities, the company must submit the documents found in Appendix I:

- Document 1 – Request for information about health and safety in the company
- Document 2 – Declaration of compliance with health and safety regulations
- Document 3 – Confirmation of reception of documents

Once these documents have been completed, they must be sent to spri.pacae@upc.edu, with a copy to the contracting UPC unit.

Depending on the activities, the external company may be required to provide additional documents:

- A safe work procedure for the activities that will be carried out at the UPC.
- A record of appointment of a health and safety resource.
- Health and safety training certificates of external staff.
- Certificates of medical fitness (or a document waiving the health check, when possible).
- Any other documents that are considered necessary.

The external company must give the health and safety information and the instructions established by the UPC to any companies that it subcontracts to undertake activities at the UPC, and will require subcontracted companies to comply with the health and safety instructions established by the UPC and the regulations on occupational health and safety and coordination of business activities.

2.2. Coordination actions

Before the start of activities at the UPC, the company and the contracting UPC unit must plan the works and document them adequately.

The company is responsible for identifying risks in the activities that its employees will undertake at the UPC and for determining and adopting the required safety measures before the start of the works.

If the activities for which the company is hired involve risks that could affect its staff or other people who are present, the company and the UPC must agree on the preventive measures that will be adopted and document them adequately.

If the works involve demolition, renovation, maintenance and/or construction, before the start of the activity the company must request information from the University on the potential presence of hazardous materials, specifically asbestos.

The company must consider the health and safety information established by the UPC to assess the risks of the activities that it must undertake at the University.

Training of company staff

Company staff must be qualified for the tasks that they will undertake at the UPC and must have completed suitable training on the prevention of occupational risks relating to their activity, as well as the corresponding certificate of medical fitness for work.

Personal protection equipment

The company must give its staff the personal protection equipment (PPE) required for the tasks that will be undertaken. The PPE must be in perfect condition and protect against the specific risks.

Before the start of the work, the company must consult the contracting UPC unit to find out which PPE is obligatory in the areas of the UPC that the company's staff will access.

Work equipment

The work equipment that will be used at the UPC must be in perfect condition and suitable for the activities that will be undertaken, in accordance with the manufacturer's instructions.

The company will be responsible for ensuring that the work equipment meets the relevant health and safety regulations, and for undertaking the periodic inspections that are established in the regulations corresponding to each piece of equipment.

Aspects that the company must communicate to the UPC

The company must inform the contracting UPC unit about the following:

- The start of the works at the University, any interruption that could occur, and the completion of the works.
- Works that must be undertaken outside the University's normal working hours.
- Any change in location of the works.
- Any change that could affect the work process.
- Any change in relation to external staff.
- Occupational accidents involving external staff that occur at the UPC.

If the company identifies any potential risk of accident or important safety deficiency in the work zone or its surroundings, it must be reported immediately to the contracting UPC unit to determine the preventive actions that must be adopted. Appendix 2 contains a document that should be used to communicate health and safety incidents.

The company must inform the contracting UPC unit when the works have been completed, so that any safety systems that have been deactivated can be reconnected and checked.

3. HEALTH AND SAFETY INFORMATION AND INSTRUCTIONS

3.1. General instructions

This section informs external companies about

- Common health and safety instructions that companies and their staff must adhere to while they undertake their activities at the UPC.
- Specific risks at the University that could affect external staff, the measures that must be adopted to prevent them, and the health and safety instructions that external companies must follow.



Common instructions

External staff must

- Wear suitable work clothes and visible identification of the company to which they belong.
- Properly use the personal protection equipment that is compulsory in the areas that they must access, and any specific PPE that is required for the activity.
- Follow the safety signs in the areas where the activities will be undertaken.
- Keep the work zone tidy and clean, to avoid obstructing circulation areas and causing accidents.
- Remove all the waste that has been generated once the activity has been completed.
- Note the state of the ground and any differences in level that could exist in routes around the work zone. When they go down stairs, they must hold onto the stair rail and avoid distractions such as reading documents, looking at a mobile phone, etc.
- Not use chairs, boxes or other items to access high areas. Portable ladders or appropriate work platforms must be used instead.
- Communicate any fault or deficiency in the facilities that could be a risk. Any question or concern about health and safety that may arise during the works should be passed on to the contracting UPC unit.

On work equipment

- Use work equipment with the required protection devices and in accordance with the manufacturer's instructions. Work equipment can only be used by staff who have the specific training required to operate it and the authorisation of their company.
- Do not override or remove safety devices or guards from work equipment.
- Disconnect work equipment from its electricity supply and make sure that it cannot be accessed by other people when it is not being used.

On electrical installations

- Do not modify the distribution panels and electrical installations of the UPC. Any changes to electrical installations must be carried out by an authorised electrician.
- If works must be carried out with the electricity turned off, the person responsible from the company must ask the contracting UPC unit to disconnect the supply before the start of the works. This request must be passed on to the UPC Maintenance Service to ensure that the electricity supply is fully disconnected.
- Use extension cables and extension sockets that are in perfect condition and suitable for the power of the equipment that will be connected.
- When you need to work outside or in wet areas, use suitable electrical equipment.

On work in circulation areas or spaces occupied by others

If the activities are carried out in circulation areas or areas occupied by others and could represent a risk to them due to materials on the ground and/or liquid spills, the projection of particles when work equipment is used, objects falling from higher levels, etc., the following instructions apply:

- Delimit the work zone using fences or safety tape to prevent other people from entering and put up “no entry” signs.
- Consult the contracting UPC Unit about the benefits of closing off the circulation area or preventing people from entering the work zone, or agree on a date and time for carrying out the work when nobody is using the area.

On working in areas where there is no mobile phone or radio (walkie-talkie) coverage

If the activities are to be carried out in confined spaces (underground, service ducts, etc.), consult the contracting UPC unit to check whether the area has mobile phone or radio coverage (walkie-talkie). If it does not have suitable coverage for communicating with the outside, the works must be undertaken in teams of at least two people.

On preventing emergencies

- Before work starts, check the location of fire alarms, evacuation routes, emergency exits and fire extinguishers in the areas in which the activity is to be carried out.
- Keep the following free from obstacles: evacuation routes, fire exits, access to fire extinguishers, equipped fire hydrants, dry standpipes and any other fire fighting system.
- Ensure that emergency signs remain visible.
- Keep fire doors shut. Do not wedge them open.
- Inform the contracting UPC Unit about any work that affects evacuation routes and/or fire exits so that appropriate measures can be taken.
- Advise the UPC Unit about any work that generates dust or heat that could activate automatic fire extinction systems.
- Smoking is prohibited in University buildings.



Work in traffic zones

Occupational hazards

Work that is undertaken in outside areas where there is traffic, in parking areas, or in inside areas where forklift trucks, aerial work platforms or other heavy machinery may travel could lead to

- A risk of being run over or hit by vehicles.

Preventive measures / Instructions

Workers must wear high visibility jackets or high visibility work clothes.

The work zone must be fenced off.

Signs should be put up to prohibit the entry of vehicles, indicate a diversion, or show that road works are being carried out, as appropriate.

The contracting UPC unit must be consulted to determine whether traffic of vehicles should be regulated or prohibited in the work zone while the works are being undertaken, and to agree on the date and time of the works, so that they have the least impact on traffic and on the University's activity.



Work in laboratories

Occupational hazards

Research and teaching activities that are carried out in UPC laboratories could involve various occupational hazards:

- Exposure to harmful and/or toxic substances.
- Contact with caustic and/or corrosive substances.
- Hazards related to the operation of machines (trapping, projections, knocks).
- Exposure to biological contaminants.
- Electrical shocks.
- Exposure to non-ionizing and ionizing radiation.

These risks could affect workers from external companies who enter laboratories, or the hazards could be worsened by the activity of external workers.

Preventive measures / Instructions

When works must be undertaken in a laboratory, the following must be determined before the start of the activities:

- Preventive actions that must be implemented by the laboratory (for example, removing chemicals, equipment and apparatus; halting operations and shutting down installations; cutting the supply of technical gases and the electricity supply; ensuring that there is no activity in the laboratory during the works; marking the work zone, etc.).
- Whether any collective protection equipment is required (screens).
- Which PPE external workers must use.

External workers must inform the laboratory manager before they enter the laboratory, ask him/her if any additional precautions are required, and resolve any concerns that may have arisen. A member of the laboratory staff must be present during the works.

External workers must comply with each laboratory's safety and hygiene regulations.

External workers must respect the health and safety signs in the laboratory. This is particularly important regarding the obligatory use of PPE.

Laboratory material, equipment, containers of products or waste, gas cylinders, etc. must not be handled.

Surfaces on which the work is to be undertaken must be free from products and containers. If this is not the case, external workers will ask for the objects to be removed.

No eating and drinking is allowed in laboratories. Hands must be washed before leaving the laboratory.



Work in areas where there is a risk of falls from height

Occupational hazards

Access to installations such as the following situated at over 2 m height in certain areas of the UPC may involve a serious risk of falling to a different level:

- Flat roofs with no perimeter rails.
- Sloped roofs or light-weight roof structures.
- Skylights and other openings for lighting.
- Walkways or places where the rails have deficiencies (no toe boards, no midrails, not strong enough).
- Accesses to roofs or high areas with a lack of safety devices.
- Large windows and glass walls that need to be accessed for cleaning tasks.
- Walls that require rope access techniques.

Preventive measures / instructions

Activities that involve a risk of falls from height require a specific safe working procedure, which must specify the occupational risks, the activities to be carried out, the means of collective protection, the PPE and the anchorage device or structural anchor, the presence of health and safety officers, rescue actions and the required resources, and any other preventive actions that are considered necessary. Collective protection measures must be prioritised over individual protection measures.

The UPC's lifelines or anchor points cannot be used unless the corresponding CE certificate of conformity has been requested from the University, as well as the certificate of installation, a valid inspection certificate issued by the authorised maintenance company, and the design calculations.

The external company must confirm that the workers who will undertake tasks that entail a risk of falls from height have completed theoretical and practical training on how to work safely at height and have a certificate of medical fitness for working at height.

These works will always be undertaken in teams of at least two people.

Workers must not walk over skylights or other weak elements, or sit or lean on them.

Workers who carry out these tasks must have effective communication devices, such as walkie-talkies and mobile phones.

Jobs that involve a risk of falling from height should not be carried out in unfavourable weather conditions (strong wind, rain, extreme heat or cold, etc.).

The timetable for works on roofs must be agreed with the contracting UPC unit as not all roofs have lighting on them.



Work involving portable ladders

Occupational hazards

The use of portable ladders could lead to a risk of:

- People falling to a different level.
- Falling of dropped objects.
- Falling of objects due to handling.
- Falling of objects that have become detached.
- Knocking into static objects.
- Trapping by objects or between objects.

Preventive measures / Instructions

Portable ladders must only be used when the use of safer work equipment is not justified due to the low level of risk, or when other solutions are not possible due to the location.

When the work is at a height of above 3.5 m or the tasks require movements or efforts that put the worker's stability at risk, the use of portable ladders should be avoided and other means, such as scaffolding or aerial work platforms, should be employed.

Portable ladders must have CE marking, be in perfect condition, and have anti-slip systems on the feet and a locking mechanism to prevent opening.

Portable ladders cannot be used to work close to openings, lift shafts, windows or similar elements unless suitable protection is employed to avoid the risk of falling to a different level.

The company must confirm that workers who undertake tasks at height with a risk of falls have completed theoretical and practical training about working at height and have a certificate of medical fitness for working at height.



Work involving scaffolding

Occupational hazards

The use of scaffolding can lead to a serious risk of:

- People falling to a different level.
- People falling on the same level.
- Falling of dropped objects.
- Falling of objects due to handling.
- Falling of objects that have become detached.
- Knocking into static objects.
- Trapping by objects or between objects.

Preventive measures / Instructions

Scaffolding must have CE marking. It should be assembled with all the components required for its use and safety, according to the manufacturer's instructions. During assembly, the workers must use the PPE that the manufacturer establishes as obligatory in the instruction manual.

Work platforms must have strong guardrails at a height of at least 90 cm. The distance between the guardrails and midrails, and between the midrails and the toeboards, must be no more than 50 cm. The toeboards must be at least 15 cm above the platform.

The wheels of mobile scaffolding must have a device for locking rotation and movement, and it must be ensured that this device works correctly.

The company must confirm that workers who assemble, disassemble and use scaffolding have completed theoretical and practical training on safety, and have a certificate of medical fitness to work at height.

It must be ensured that there are no power lines overhead. If work must be carried out close to power lines, the safe distances specified in RD 614/2001 must be maintained.

The movement of pedestrians around the scaffolding must be restricted. Scaffolding must be indicated with lights when it is situated on traffic routes.

Portable ladders and trestle scaffolding cannot be placed over the scaffolding's work platform. Platforms must be accessed from within the scaffolding using built-in ladders, and trapdoors must be closed. Scaffolding cannot be moved or its position changed if there are people, material or tools on top of it.

Work must be stopped in situations of strong or very strong winds.

Depending on the complexity of the scaffolding, an assembly, use and disassembly plan may be required, in accordance with the provisions established in Royal Decree 2177/2004 establishing the minimum health and safety requirements for the use of work equipment by workers, regarding temporary work at height.



Work involving aerial work platforms

Occupational hazards

The use of aerial work platforms could lead to a serious risk of:

- People falling to a different level.
- People falling on the same level.
- Falling of dropped objects.
- Falling of objects due to handling.
- Falling of objects that have become detached.
- Knocking into static objects.
- Trapping by objects or between objects.
- Being hit or run over by vehicles.

Preventive measures / Instructions

Aerial work platforms must have CE marking, a declaration of conformity and an instruction manual. They must have been inspected and maintained according to the manufacturer's instructions.

The company must confirm that platform operators have received specific training according to Standard ISO 18878 or UNE 58923, are authorised by their company, and have a certificate of medical fitness to use aerial work platforms.

The work zone must be inspected to identify any risks (power lines, girders, etc.) and to ensure that the ground is in a suitable state to support the weight of the platform.

In addition to the platform operator, another worker will remain at the foot of the machine to supervise and prevent the movement of vehicles and pedestrians around the platform, and to guide the driver if necessary.

To avoid the risk of objects falling on other people, the area under the platform must be fenced off, signposted and delimited to prevent people from walking under it.

The following actions are prohibited:

- Using the platform for purposes other than moving people, tools and equipment to the workplace.
- Using platforms when there is an electrical storm or wind at speeds above those permitted by the manufacturer.
- Working with diesel-powered platforms in enclosed or badly ventilated areas.
- Increasing the reach of the platform using additional means such as ladders or scaffolding.



Work involving rope access

Occupational hazards

Work involving rope access is a hazardous activity regulated by RD 2177/2004, establishing the minimum health and safety requirements for the use of work equipment by workers during temporary work at height.

Works involving rope access could lead to a serious risk of:

- People falling to a different level.
- Falling of objects that have become detached.
- Falling of dropped objects.
- Knocking into static objects.
- Falling of objects due to handling.

Preventive measures / Instructions

Work involving rope access should be limited to situations in which the company determines that the activity cannot be carried out using safer work equipment, such as scaffolding or aerial work platforms, or the situation requires urgent intervention for the safety of people.

In the risk assessment, the company must confirm that the activity can be carried out safely.

The company must draw up a specific safe work procedure for activities involving rope access, which must specify the following:

- The work system: this must include at least two ropes that are anchored independently, one as a means of access, descent and support (working line), and the other as an emergency measure (safety line). The points where the working line and safety line will be anchored must be identified, and it must be confirmed that these anchorage points are strong enough for rope access.
- Work equipment: suitable harness, ropes, mechanism for ascending and descending with an automatic blocking system, the mobile fall arrest device in the safety line, the worker's seat, tools and other accessories that must be attached to the harness or the worker's seat. All work equipment must have CE marking.
- PPE.
- Means of protection to prevent the work from affecting other people.
- The work method and safety checks that must be undertaken.
- Actions to immediately rescue a worker in case of emergency.
- The team of people who will carry out the activity and the specific training that they must have completed.
- The presence of a health and safety officer.

Workers who carry out these tasks must have completed suitable, specific training on the planned operations and on the aspects determined in RD 2177/2004, as well as a certificate of medical fitness to carry out these kinds of activities.



Work in service ducts

Occupational hazards

UPC buildings contain horizontal and vertical service ducts that must be entered mainly for cleaning and maintenance tasks or to check installations.

Works in service ducts could involve various risks:

- People falling to different levels in vertical ducts.
- People falling on the same level due to uneven ground and a lack of lighting.
- Knocking into static objects due to the presence of pipes, low ceilings, insufficient lighting, etc.
- Exposure to chemical contaminants due to the activities that are carried out.

Preventive measures / Instructions

Works in service ducts require a specific safe work procedure, which must specify the occupational risks, the activities to be undertaken, preventive measures, collective protection equipment, PPE, the presence of health and safety officers, rescue actions and the required resources, as well as any other actions that are considered necessary.

Working alone should be avoided. Work should always be undertaken in teams of at least two people.

The following are required to enter service ducts:

- Effective means of communication (walkie-talkies, mobile phones, etc.).
- Independent lighting equipment.
- Safety footwear and helmets, as well as other PPE that is considered necessary for each specific situation.

If the task will generate dust and/or other chemical contaminants, the space must be well-ventilated using forced airflow systems, and self-contained breathing apparatus or PPE must be used. The preventive measures that will be adopted must be specified in the safe work procedure.



Work in confined spaces

Occupational hazards

Confined spaces (tanks, wells, etc.) are enclosed areas with limited openings to enter and exit, poor natural ventilation and, in most cases, a lack of oxygen, the presence of toxic contaminants and/or flammable substances. These spaces are not designed to be occupied by people for long periods.

Confined spaces are mainly entered for cleaning, maintenance and inspection tasks. Before any work is carried out in a confined space, the possibility of undertaking the task from the outside must be considered. A confined space will only be entered if it is impossible to undertake the task from the outside.

Working in confined spaces could lead to a serious risk of:

- People falling to a different level.
- Knocking into static objects due to the presence of pipes, a low roof, insufficient lighting, etc.
- Asphyxia.
- Exposure to chemical contaminants due to their presence or due to the activities carried out.
- Fire or explosion due to the use or presence of flammable products.

Preventive measures / Instructions

Before the work is started, the company must ask the contracting UPC unit for information on the characteristics of the confined space.

The company must draw up a specific safe work procedure for the activity, which must indicate occupational risks, the activities that will be undertaken, preventive measures, collective protection equipment, PPE, the presence of health and safety officers, rescue actions and the required resources, and any other actions that are considered necessary.

If the work to be undertaken generates dust and/or hazardous atmospheres, the need for forced airflow systems, PPE and self-contained breathing apparatus must be determined, and the levels of contaminants, oxygen, etc. should be measured continuously.

The company must confirm that workers who will carry out tasks in confined spaces have completed specific health and safety training to work in these kinds of spaces and have a certificate of medical fitness for this kind of activity.

The following are required to work in confined spaces:

- Effective means of communication (walkie-talkies, mobile phones, etc.).
- Independent lighting equipment.
- Safety footwear and helmets, as well as other PPE that is considered necessary for each specific situation.



Work in transformer substations and a building's electrical rooms

Occupational hazards

Work in these areas could lead to a serious risk of:

- Direct and indirect contact with electricity and with arc discharge.
- Burns due to contact with electricity or arc discharge.
- Falls or knocks as a result of contact with electricity or arc discharge.
- Fires or explosions caused by electricity.

Preventive measures / Instructions

Only authorised and/or qualified workers can enter areas allocated to electricity services (transformer substations, a building's electrical rooms) and undertake electrical installation work, in accordance with the specifications in RD 614/2001, establishing the minimum provisions for the health and safety of workers exposed to electrical risks. All electrical work and must be undertaken according to the indications in RD 614/2001.

The company must confirm that the authorised and/or qualified staff, according to RD 614/2001, have:

- The external company's authorisation to undertake specific electrical installation activities at the UPC.
- Theoretical and practical training on the safe work procedure and on health and safety and protection measures.
- Training in first aid, and specifically in cardiopulmonary resuscitation (CPR) and in the use of defibrillators.
- Professional or university training on electrical installations or certified experience of two or more years in the case of qualified staff.

For any activity that is carried out in a transformer substation, the company must draw up a specific safe work procedure according to the specifications in RD 614/2001. This procedure must include: occupational risks, the operations that will be undertaken, safety measures and checks to prevent electrical risks, the training of authorised/qualified workers who will undertake the tasks, work equipment and the means of protection and prevention that must be used, PPE, the presence of a health and safety officer, and the actions to be taken in the case of an emergency or accident.



Work on gas installations or in their vicinity

Occupational hazards

Buildings and certain areas belonging to the UPC have gas installations and gas-powered equipment (boilers for heating systems, cooking equipment in catering premises, work equipment in laboratories).

Certain kinds of work in the vicinity of these installations could lead to a serious risk of:

- Explosions
- Fires

Preventive measures / Instructions

Gas installations can only be worked on or adjusted by an authorised gas fitter.

If any activities that could affect the gas installation need to be undertaken, consult the contracting UPC unit, which will pass your request on to UPC Maintenance Services to ensure that the supply is cut off.

When hot work needs to be undertaken in the vicinity of gas installations or gas-powered equipment, the company must draw up a specific safe work procedure, which must specify the operations to be undertaken, the occupational risks, and the safety measures that must be adopted.



Hot work

Occupational hazards

Hot work includes operations of welding and cutting and the use of blowtorches.

These kinds of tasks could lead to a risk of:

- Projection of fragments or particles.
- Exposure to UV radiation.
- Exposure to harmful and/or toxic substances.
- Fires.

Preventive measures / Instructions

The company must draw up a specific safe work procedure, which must specify the occupational risks, the safety activities that must be undertaken, collective protection equipment, PPE, supervision of the work, the presence of health and safety officers, actions in the case of fire and the required resources, as well as other preventive actions that are considered necessary.

All equipment must have CE marking and meet the requirements of RD 1215/1997. Equipment must be inspected and maintained according to the manufacturer's instructions.

The company must confirm that workers who undertake hot work have the company's authorisation and have completed specific health and safety training, as well as training on putting out fires.

While undertaking hot work, all staff must use the PPE established by the company to protect themselves from the risks caused by this activity.

The work environment must be clean and tidy.

Before working with heat, any combustible and flammable materials must be removed and those that cannot be removed must be suitably protected. At all times, the area in which sparks might fall must be checked and suitable measures must be taken. Fire extinguishers must be kept to hand in the work zone.

The work zone should be delimited using partitions to protect other people.

Technical gas cylinders must be kept in a vertical position and attached.

Areas in which hot work is carried out must have good natural ventilation or a forced airflow system.

Areas in which tasks that could release flammable gases or vapours have been carried out must be well-ventilated before hot work is undertaken in the same area. Hot work cannot be undertaken in confined spaces that contain or have contained flammable products.

Work outside should be avoided when there are adverse weather conditions.



Work that involves the use of chemicals

Occupational hazards

Handling of chemical products may lead to a risk of:

- Exposure to harmful and/or toxic substances.
- Contact with caustic and/or corrosive substances.

Preventive measures / Instructions

The company must notify the contracting UPC unit about the chemicals that it will use at the UPC, how hazardous they are, the quantities that will be used, and the precautions that should be adopted in relation to other people who could be present in the areas in which the chemicals are used. In particular, the company must inform the contracting UPC unit when it is necessary to isolate the area where the chemicals are being used, or to restrict access to people who are not involved in the work, and on the safety period and the need for ventilation.

Whenever possible, the company must use products whose properties are the least hazardous.

Chemicals must be used according to the manufacturer's instructions (technical datasheet and safety data sheet) and the established work procedure.

All containers (tanks, cans, bags or similar) that contain chemicals must have the manufacturer's label on them.

Flammable products must be removed from their containers in such a way that spills are avoided. If spills do occur, the waste must be cleaned and managed properly.

The company must confirm that the workers have completed specific health and safety training on handling chemicals.

Depending on how hazardous the chemicals are and the amounts that will be used at the UPC, the company must provide a specific safe work procedure for handling chemicals during activities at the University. The safe work procedure must specify what operations must be carried out, the occupational risks, the safety measures that should be adopted, the PPE that is required, actions to be taken in the case of spills and other aspects that are considered necessary.

Workers must have:

- Safety data sheets for the chemicals that are going to be used.
- The PPE that is indicated on the safety data sheet.
- Suitable absorbent material, according to the information in the safety data sheets, to clean up any potential spills of chemicals.



Work that involves the use of flammable products

Occupational hazards

Handling flammable products could lead to a risk of:

- Exposure to harmful and/or toxic substances.
- Fire.
- Explosion.

Preventive measures / Instructions

In addition to the preventive measures and instructions in the section “Work that involves the use of chemicals”, the specific indications given below must be followed.

All flammable products must be stored in suitable containers, in a vertical position and on retention trays so that any spills can be cleaned up easily.

Only the amounts of chemicals that will be used every day should be stored in the work zone.

Flammable liquids must not be thrown down drains or into the sewage system. Flammable waste products must be removed on a daily basis.

Operations that generate flames or sparks are not permitted around areas where there are flammable products.

Operations of decanting flammable chemicals must be carried out far from heat sources (ovens, furnaces, hot plates, etc.), and in such a way that spills are prevented. If spills do occur, the waste that is produced must be cleaned up and managed correctly. The generation of electrostatic charges must be avoided by making an equipotential connection between the containers (the container that is to be emptied and the one that is to be filled) and to a ground system. The decanting operation must be carried out slowly, preferably using manual pneumatic pumps (if electric pumps are used, they must be flameproof).

3.2. Specific instructions

Due to the experience of working with external companies that provide services at UPC centres, particularly cleaning, catering and gardening companies, it was considered necessary to establish more specific instructions for these kinds of companies.

The following specific health and safety instructions **complement** those detailed above.

For example, due to the experience gained in coordinating companies' activities, additional specific instructions for cleaning and gardening companies have been added to the general instructions for work in areas where there is a risk of falling from height.



For cleaning companies

Cleaning work in which there is a risk of falling from height

UPC buildings have different kinds of windows, glass walls and other elements at height (over 2 m high) that may need to be cleaned. In all cases, safety has priority over cleaning: in other words, if a window pane cannot be cleaned under safe conditions, it should not be cleaned.

To clean windows, glass walls or other elements at height, the instructions relating to working at height must be followed, in addition to the following indications:

- Whenever possible, window panes, windows, glass walls, etc. should be cleaned from the ground using a telescopic pole.
- Cleaning tasks must not be carried out on roofs, walkways or other high areas that do not have guardrails or whose guardrails are deficient (gaps in the rails, lack of toeboards or midrails, not strong enough, broken elements, etc.).
- The outside of glass panes or other elements at height must not be cleaned if part or all of the worker's body needs to be outside the window or opening to achieve this, and no suitable protection devices and/or anchor points are available.

The UPC's lifelines or anchor points cannot be used unless the corresponding CE certificate of conformity has been requested from the University, in addition to the certificate of installation, a valid inspection certificate issued by the authorised maintenance company, and the design calculations.

Under no circumstances can guardrails, or any other element that does not comply with regulation UNE-EN 795:1997 and its amendment UNE-EN 795/A1:2001, be used as an anchor point.

For example, the “rings” in the windows of the Vèrtex Building on the Campus Nord are not anchor points.

If spaces or elements at height need to be cleaned, but the external company finds a lack of the protection elements needed to prevent the risk of people falling to a different level, the company must inform the contracting UPC unit of the technical and organisational measures that are required to carry out the activity safely. These could include the use of an aerial work platform, lifelines or certified anchor points, according to regulation UNE-EN 795.

Cleaning in specific areas

Circulation areas and spaces occupied by other users of the buildings

In corridors, lobbies, stairways and other circulation areas, during activities that could represent a risk to other people including cleaning floors with water or other liquids or polishing them, a sign must be put up indicating the risk of falling. If necessary, entry to these areas should be prohibited while the cleaning activities are being undertaken.

Tasks that involves the greatest risk must be carried out at times when there are no users in the buildings. If the cleaning work affects areas where users are present and cannot be done at times when the building is empty, the contracting UPC unit must be consulted to discuss the suitability of closing off the area and establishing a separate route that is adequately signposted.

In cleaning tasks such as window cleaning in which materials, tools or cleaning implements could fall, the work area must be cordoned off by fences or safety tape to prevent other people from entering, and signs prohibiting entry must be put up. It is important to ensure that people who are not involved in the cleaning work do not enter the delimited area.

Material, machines, cleaning products, etc. must not be left unsupervised if the work is carried out in areas in which users of the building are present.

Laboratories

Laboratories can only be cleaned if the UPC laboratory manager has given his/her authorisation, to ensure that no activities are being undertaken in the laboratory that could represent a risk to cleaning staff.

The laboratory manager will indicate which surfaces need to be cleaned. These surfaces must be free from products and recipients. If this is not the case, the surfaces will not be cleaned or the cleaning staff will ask for the items to be removed.

Cleaning staff should not handle or empty containers that contain specific laboratory waste.

Technical areas

Technical areas (data centres, electrical rooms, etc.) can only be cleaned if the UPC manager of the area, or a person delegated by them, is present. Cleaning must be carried out according to this person’s indications.

Shelves

The cleaning of shelves in libraries and archives must be carried out in coordination with the UPC managers of these areas, who must remove all of the books, journals, documents, etc. to make the cleaning task easier.

In certain spaces, a lot of dust may build up. For this reason, the cleaning company must assess the need to provide respiratory protection equipment for its staff.

Floors

When floors are being cleaned with water or liquids, or polished, a foldable “warning: slippery floor” sign must be used and the route people should take must be indicated.

Floors in circulation areas should preferably be cleaned at times when the occupation of the building is low.

Car parks

During work to clean car parks, workers must follow the preventive measures and the instructions established in the section “Work in traffic zones”.

Use of cleaning products

The following instructions complement the safety indications on “Work that involves the use of chemicals”.

The company must submit to the contracting UPC unit a list of the products that it will use, along with the respective safety files, and the specific instructions for handling and use.

Regarding cleaning products, it must be ensured that:

- All containers of cleaning products are labelled correctly and the intrinsic risks and safety pictograms can be identified clearly. In addition, suitable containers must be used for storing cleaning products.
- Suitable procedures are established for the dosage and use of chemical products for cleaning and disinfection, and for the use and supply of PPE.
- Cleaning products are stored in specific, well-ventilated spaces. Cleaning products should not be stored in premises used as changing rooms, showers, washrooms or toilets.

Emergencies

Cleaning staff must take particular care not to leave materials, trollies or other cleaning tools in front of emergency exits or in evacuation routes.

Coffee machines, portable stoves or heaters must not be used in changing rooms.



For catering companies

Catering companies are responsible for the work and safety conditions in the concession area: kitchens, cold chambers, stores, dining halls and washrooms.

Works to remodel the concession area and subsequent renovation work must first be approved by the technical and administrative services designated by the UPC.

Catering companies must inform the contracting UPC unit about the risks of their activity that could affect UPC staff or other clients, particularly with respect to fire risks. Kitchens contain cookers, grills and fryers, and are therefore areas in which a fire is most likely to occur.

The installations must be maintained by the external company, in accordance with the agreement drawn up with the contracting UPC unit.

Taking into account that a fire in these areas could affect the rest of the building, catering companies must submit the following documents to the contracting UPC unit:

- A study of the assessment of fire risk and preventive measures.
- A plan drawn up by an installation company that is certified in automatic fire extinguishing systems for extractor hoods.
- Records of periodic maintenance of automatic fire extinguishing systems in extractor hoods.
- Records of periodic maintenance of fire extinguishers (when it has been established that this is the responsibility of the concession).
- Records of regular cleaning of extractor hoods, ducts and chimneys.
- Records of regular maintenance of cooking equipment (fryers, pots, etc.) and the gas installation.

Works to remodel the concession area, renovations and the distribution of furniture must respect the evacuation routes (emergency exits, emergency signs, emergency lighting and access to fire protection equipment) and the compartmentalisation against fires, particularly with respect to the layout of installations.



For gardening companies

Gardening work with a risk of falling from height

Some gardening operations such as pruning may represent a risk of falling from height and therefore require a specific safe work procedure that must indicate occupational risks, actions that must be carried out, means of collective protection, PPE, the presence of health and safety officers, rescue operations and the means required to undertake them, and any other preventive actions that are considered necessary. Collective protection measures must be prioritised over individual protection measures.

If gardening work requires rope access, the company must follow the indications in the section “Work involving rope access” in this document.

The work plan must be agreed with the contracting UPC unit, in order to

- avoid, whenever possible, the work coinciding with other activities and with vehicles travelling through the area; and
- signpost and cordon off with fences the work areas where branches, tools etc. could fall or be found on the ground.

Work cannot be undertaken outside in unfavourable weather conditions (strong wind, rain, extreme cold or heat, etc.) or outside times when there is natural light.

Use of pesticides

The use of pesticides must comply with regulations on this activity relating to work methods, application equipment, staff training, transport and storage of pesticides, PPE and other relevant aspects.

The company must always select pesticide products and application practices that entail the least risk for human health and the environment.

Professional users of pesticide products must have an identity card certifying that they have the knowledge required to carry out this activity, according to the provisions in RD 1311/2012.

The company must confirm that staff who apply pesticides have completed theoretical and practical health and safety training and are offered specific health surveillance for this activity.

The company must have a specific work procedure that covers aspects relating to health and safety in the various stages of the process: selection of the pesticide, preparation of the mixture, application, cleaning of equipment, waste management, etc.



4. WHAT TO DO IN CASE OF AN OCCUPATIONAL ACCIDENT

In the case of an occupational accident, healthcare for external staff must be provided by the mutual insurance company for occupational accidents and diseases with which the company is associated.

Before work is carried out at a UPC centre, external staff should determine the location of the closest health centre of their mutual insurance company, and note the numbers of the information lines.

In case of an occupational accident, the person responsible for the company must inform the contracting UPC unit, which will then inform the Occupational Health and Safety Service (SPRL) of the UPC.



APPENDIX 1 – Documents to be completed by the company

Document 1 - Request for information about health and safety in the company

Document 2 – Declaration of compliance with health and safety regulations

Document 3 – Confirmation of reception of documents

DOCUMENT 1 - REQUEST FOR INFORMATION ABOUT HEALTH AND SAFETY IN THE COMPANY

This form must be filled in by the company and sent to the contracting UPC unit, with a copy to spri.pacae@upc.edu.

Company

Name / registered name

Address Tax ID number (CIF)

Activity for which the UPC hired the company

Will companies be subcontracted for activities at the UPC? yes no

Health and safety method adopted by the company

Own health and safety service

| | Own | Collaboration with external health and safety service |
|-----------------------------------|--------------------------|---|
| Safety at work | <input type="checkbox"/> | <input type="checkbox"/> |
| Hygiene | <input type="checkbox"/> | <input type="checkbox"/> |
| Ergonomics and psychosociology | <input type="checkbox"/> | <input type="checkbox"/> |
| Occupational medicine | <input type="checkbox"/> | <input type="checkbox"/> |

Name of the external health and safety service.....

External health and safety service

Name of the collaborating external health and safety service

Others:.....

Contact person for occupational health and safety in the company

Name and surname(s)

Position.....

Telephone Email

External staff who will carry out activities at the UPC

(Can be attached in a separate document.)

| Name and surname | ID card number (DNI) | Company |
|------------------|----------------------|---------|
|------------------|----------------------|---------|



Activity that external staff will undertake at the UPC

- Work in laboratories, Work in areas where there is a risk of falls from height, Use of equipment for working at height, Work involving rope access, Work in service ducts, Work in confined spaces, Work in transformer substations, Work on gas installations or in their vicinity, Hot work: welding and cutting

Description of the activity. Indicate the location, the work equipment, chemical products, etc. that will be used.

(Can be attached in a separate document.)

Risks of the activity

Preventive measures

Risks that could affect other people present in the UPC facilities

Signature and company seal

In case of digital signature, protect the document after signing.

Name and surnames

Position Date



DOCUMENT 2

DECLARATION OF COMPLIANCE WITH HEALTH AND SAFETY REGULATIONS

This form must be filled in by the company and sent to the contracting UPC unit with a copy to sprl.pacae@upc.edu.

(Name and surnames), with ID number,
In the role of
from the company

I declare as follows:

That the entity that I represent fulfils the obligations established in Law 31/95, on occupational health and safety, and the implementing regulations, and specifically that:

- 1. It has carried out a risk assessment of the activities that its staff will undertake at the UPC and has considered the health and safety documents provided by the UPC.
2. It has informed its staff about the risk assessment of their activity and about the health and safety documents provided by the UPC.
3. Its staff have received training on occupational health and safety, according to the risks identified in their workplace.
4. Its staff have been provided with the personal protection equipment indicated in the risk assessment and in the UPC's health and safety documents.
5. The company's work equipment that is used at the UPC complies with the applicable health and safety regulations.
6. It offers its staff specific health surveillance for the risks in their workplace.
7. It will inform the contracting UPC unit of any anomaly, incident or accident that occurs on UPC premises, and of any emergency situations.
8. It will require subcontracted companies to comply with the health and safety instructions established by the UPC and the regulations on occupational health and safety and coordination of business activities, and will reliably pass on all of the information on coordination of the prevention of occupational risks received from the UPC, so that the subcontractor gives this information to all workers who will carry out activities on UPC premises.

(Name and surnames)

....., 20.....

(Signature and seal of the external company)

In case of digital signature, protect the document after signing.



DOCUMENT 3 CONFIRMATION OF RECEPTION OF DOCUMENTS

This form must be filled in by the company and sent to the contracting UPC unit with a copy to sprl.pacae@upc.edu.

The contents of the documents that the UPC has provided,

- Health and safety instructions for external companies. Code 31.02/16/CAE/MGM.
- Others:

Empty rectangular box for additional information.

have been passed on to the staff of your company who must undertake activities at the UPC or, in the case of subcontracting, to the companies who will work at the University, so that these instructions are taken into account during activities on UPC premises.

Name and surname(s), with ID number, in the role of at the company

I declare as follows:

That staff from the organisation that I represent who will undertake activities at the UPC have been suitably informed of the health and safety instructions described in the document "Health and safety instructions for external companies".

(Name and surname) 20.....

(Signature and seal of the external company)

In case of digital signature, protect the document after signing.



APPENDIX 2 – Document to communicate health and safety incidents

PROPOSAL / COMMUNICATION ON HEALTH AND SAFETY

Based on the right of workers to participate in improving the levels of health and safety protection, established in Article 18 of the Law on occupational health and safety and by virtue of Article 24 of the same Law, referring to the coordination of business activities in relation to occupational health and safety, the following health and safety proposal and/or communication is presented:

Company name:

Activity contracted:

Place where the work is carried out (indicate the campus, building, floor and door)

.....

.....

PROPOSAL/COMMUNICATION:

Information about the person making the proposal/communication

Received on behalf of the UPC

Name and surname(s)

Name and surname(s)

In the role of

In the role of

Company

Signature*

Signature

Date

Date

**In case of digital signature, protect the document after signing.*



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Barcelona, October 2016

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